

X-Ray, CT-Scan, Ultra-sound, Blood Bank and Ambulances are available round the clock. A well established Coronary Care Unit (CCU) and an Intensive Care Unit (ICU) exist in the hospital for serious Cardiac and Non-Cardiac patients. The Coronary Care Unit of the hospital has been completely renovated recently with new equipments and infrastructure. The hospital has a well laid down disaster action plan & disaster beds, which are made operational in case of mass casualties and disasters.

A Disaster Management Unit is also functioning in the Casualty Department to attend the serious patients with the desired care.

An H1N1 Screening centre has been started since June, 2009 to screen the patients round-the-clock which is supported with Information Cell & Call Centre to inform & follow up the treating patients. A separate H1N1 Isolation Ward & a 5- bedded ICU has also been set up in the Hospital on the need basis for treatment of H1N1 patients.

The Hospital has comprehensive trauma care facility with 74 beds at the Trauma Care Centre in readiness to shoulder the added responsibility of providing comprehensive & timely emergency medical care to victims of trauma in the event of any accidents occurring in Delhi especially in Lutyen's Delhi.

13.3.4. Sanitation & Environmental Concern in Hospital Campus

The hospital has given high importance to the sanitation and beautification of entire campus to create a nature friendly ambience. Under a Special Drive, remodeling of Plants, landscaping of Central Park Lawns, relaying of grass, creation of Artificial Water Falls with colorful lights & fountains and a beautiful Herbal Garden in the Nursing Home Block have been under taken to give a refreshing look to the visitors and the patients alike. Special Sanitation Drives are undertaken at regular intervals to ensure proper cleanliness and hygienic atmosphere in the hospital. The Hospital has been adjudged by the FICCI as the best Hospital under the environmental concern category in 2010.

13.4.5. Resident Hostels for Doctors & Nurses:

The hospital has provided accommodation to Resident Doctors as well as Nurses/Nursing students to improve the Health Care Services by ensuring their availability on duty in the campus at the time of requirement. There

are 143 rooms in the Doctors Hostel and 100 rooms in the Nurses Hostel.

13.4.6. Benefits/Activity for person with disability:

The Hospital has facilitated for setting up ramps and wheel chair service through porters for the person with disability.

13.4.7. Recent Achievements of the Hospital

The following are the latest additions of the patient care facilities in the hospital;

1. **Sanction of General Maternity Ward and Neonatal Ward in the Hospital:** The Hospital has received the approval for sitting up of a General Maternity and Neo-natal Ward at a total cost of Rs. 2.45 Crores for which 79 posts have been provided to support the General Maternity and Neonatal Services. Till now, the Maternity services were confined to entitled CGHS beneficiary in the Maternity Nursing Home having 25 beds with the approval of General Maternity Ward. It is expected that with the start of extended Maternity Services in the year 2010, the quality Maternity services would be available to all CGHS beneficiaries.
2. **College of Nursing:** The Hospital's School of Nursing set up in 1963 with 25 students capacity per year has been upgraded into College of Nursing with intake capacity of 50 students per year. Two batches of B. Sc (Nursing) have since been admitted. The estimated cost of the project is Rs.3.00 crores. The Construction work of the new campus of college has been completed by HSCC and the teaching classes have been started in the New Campus in the year 2010.
3. **Dharamshala:** A Dharamshala for attendants of patients has been planned to be constructed on one acre of land allotted to hospital near the Birla Mandir to help the attendants/relatives of the outpatients coming from different parts of the country. The designs /clearances have been approved & Govt.'s approval on the estimates of Rs. 6.14 crores has been received. The detailed estimates and drawings have been got approved from NDMC. The construction activity is planned to be started by CPWD during the current Financial Year itself.
4. **Computerization:** The computerization of centralized OPD Registration was started from 2005 to facilitate the outdoor patients to get their

registration done from any of the 20 Counters in the OPD Block. There are separate Registration Counters opened for Senior Citizens, physically handicapped persons and the staff. The computerization of Administration & Accounts and cash handling work has also been started for easy retrieval of information/record. Only recently, NIC has undertaken the comprehensive E-Hospital Project with approved cost of 3.50 crores to cover all the activities under its umbrella. OPD registration & repeat visits, IPD registration & ward allotment, casualty registration, transfer and discharges under E-Hospital software had been implemented. E-Hospital implementation covering all aspects of patient care, Labs, Human Resources of the Hospital, Inventory control System for the Hospital and IT induction. The online monitoring of lab tests has since been made operational.

5. **Construction of New Casualty Building:** In order to provide state of the art Emergency Medical Care, a new Casualty Building is under construction with a provision of 280 beds. The estimated cost of the project is about Rs. 26 crores. Moreover, 16 VIP Rooms in the Nursing Home are also under complete renovation, out of which 6 Rooms have since been renovated for patients care.
6. **Medical Care Arrangements during the Commonwealth Games-2010:** The Hospital was designated as Nodal Hospital for Medical Care Arrangements for SPM Swimming Center and Boxing Center at Talkatora Stadium and National Stadium. Moreover, the Hospital had created necessary infrastructure in the Nursing Home for delegates, Sports person and their families for Medical Care during the Commonwealth Games-2010.
7. **Improvements in the Super Specialty Services:** The hospital has focused attention towards the patient care and improved services. Many new and sophisticated types of equipments have been procured in the hospital to update the hospital services. In order to strengthen the super specialty services to the patients, the Hospital has planned to construct a new Multi-story Super Specialty Block on the land available at G- point, adjacent to Trauma Center which has been recently handed over to the Hospital by the Land and

Development Office. This will considerably improve the patient care services and also reduce the waiting time for the patients. Several new disciplines are also planned to be aided in proposed new Super Specialty Block.

8. **Citizen Charter & Public Grievance Redressal:** The Hospital has adopted a Citizen Charter since 1998 and as per the directives of Hon'ble High Court of Delhi, Public Grievance Redressal Machinery has also been set up to inform the patients about the facilities available and also for redressal of their grievances, if any. There are 19 Complaint & Grievance Boxes placed at various strategic locations which are opened periodically and put up before a High Powered Committee headed by a Consultant & HOD & reviewed by a Designated Addl MS and also by the Medical Superintendent. The complainants are given an opportunity to speak in person to the CMO in charge and a written reply of the outcome of the complaint is also sent to the complainant. The Hospital is revising the Citizen Charter under the scheme "Sarvotam".
9. **Advance Trauma Life Support (ATLS) Training:** The Hospital started an intensive ATLS Training Programme for the Senior Doctors to train them on latest advancement in the Trauma life support systems. Ten batches, each with 16 trainees have since been conducted in the Hospital training centre equipped with latest equipments required for ATLS. In India this course is conducted only at Lok Nayak Jai Prakash Narayan, Apex Trauma Centre of AIIMS and at Trauma Care Centre of Dr. Ram Manohar Lohia Hospital.
10. **Distance Education Learning Programme:** The Hospital has started e-diploma course DHLS (Diploma in Hearing and Learning Speech) in association with All India Institute of Speech and Hearing (AIISH) Mysore in which 20 students are trained each year. Till now, the Hospital has conducted three courses.

The Hospital has also started a PG Diploma in Hospital Administration (PGDHA) in collaboration with IGNOU on distance learning basis. This is one year diploma course in which 30 students are admitted. This is third course in a row.

11. A New Modular Operation Theaters Complex. The Hospital has proposed for setting up of a New modular OT complex comprising new State of the Art 20 modular Operation Theaters in X-ray Block Building with an estimated cost of Rs. 36.00 crore. On execution, the OT complex will provide relief to the patients in getting operation done and reducing the waiting time.

Financial Allocations: -The financial allocations made to the hospital during the last five financial years are given below:

	Final Estimate	Expenditure (Figures in lakhs)
2006-2007		
Plan	5673.50	5672.95
Non Plan	5801.05	5794.82
2007-2008		
Plan	7071.12	7078.33
Non Plan	6381.00	6360.73
2008-2009		
Plan	8364.01	8400.26
Non Plan	9315.00	9313.47
2009-2010		
Plan	9430.00	7441.88
Non Plan	12738.00	11990.56
2010-2011		
Plan	13397.00	9037.00
Non Plan	12347.00	9516.00
		(up to Jan,2011)

13.4 INDIAN RED CROSS SOCIETY

The Indian Red Cross is the largest independent humanitarian organization in India. It has always been at the forefront to alleviate suffering at the time of any man made or natural disaster. It is a huge family of 12 million volunteers and members and staff exceeding 3500. It reaches out to the community through 700 branches spread through out the country. Its attempt to reduce vulnerability and empower the community for disaster mitigation is highly commended. The last Managing Body meeting was held on 14th June 2010 under the chairmanship of Shri Ghulam Nabi Azad.

13.4.1. Disaster Management:

During the reporting period, a flash flood instigated by cloud burst occurred at Leh (Jammu & Kashmir) in the intervening night of 5th and 6th August 2010. About 400 families were badly affected due to the flash flood and



subsequent massive landsliding made the situation worse. The Secretary General accompanied the Hon'ble Chairman IRCS, (Union Health Minister) Shri Ghulam Nabi Azad to assess the needs and formulate a response strategy for the affected. Indian Red Cross was the only organization that deployed water purification unit for providing clean drinking water to the affected population.



Along with the drinking water, IRCS provided shelter, relief material and non-food items. Entire relief consisted of 2 Nomad Water purification units, 123 pairs of gum boots, 1000 woollen blankets, 1000 kitchen sets, and 300 family tents. The total estimated cost for the non food items released was Rs 76, 74 600.

Relief activities were undertaken also in Andhra Pradesh, Haryana, Punjab, Uttar Pradesh and Tripura which

were affected by storm, rainfall, and flooding. From The IRCS National Headquarters, the Hon'ble Chairman, IRCS, (Union Health Minister) Shri Ghulam Nabi Azad flagged off relief supplies for Bihar cyclone on 23-4-2010. WatSan units deployed served 60,000 people with safe drinking water during AP floods. Total Relief sent across to the states during the adverse times amounted to Rs 7 crores.

13.4.2. DRR & Livelihood Disaster Risk Reduction (DRR)

The purpose of the programme, "Community centered Disaster Risk Reduction" in India is based on the approaches founded in the Indian Red Cross Society strategic development plan. This plan of the National Society addresses practical DM strategic measures to minimize vulnerability and risk of affected communities. For IRCS this means working with vulnerable communities, identifying their capacities, plan for actions that reduce specific risks and "build safer communities". IRCS seeks to implement its DM strategic measures by addressing locally based risks, vulnerabilities, community's coping capabilities, and required institutional capacities to manage disaster events. IRCS being efficient in disaster response and rehabilitation activities has also implemented successfully community based disaster preparedness programmes.

IRCS is implementing Disaster Risk Reduction (DRR) program in 3 states - Maharashtra, AP and Orissa supported by Hong Kong & Canadian RC. DRR program implementation guidelines have been developed.

13.4.3. Livelihood Projects

The project supported by Spanish Red Cross has been completed in the states of Andhra Pradesh and Tamil Nadu to benefit fisher folk community, at a total cost of Rs.4.72 crores for 11,000 beneficiaries.

13.4.4. Health: During the reporting period, the Society continued its HIV/AIDS activities under which Youth Peer Education, Stigma & Discrimination and care for children of HIV positive parents were covered. The Red Cross India HIV Consortium has 11 members with German and Hungarian Red Cross as new members and Italian Red Cross also joining the HIV activities. Tuberculosis Project India is a Pilot Project to take care of 200 CAT II patients who are defaulters or likely to default. The Project has been implemented in the states of Punjab, Uttar Pradesh

and Karnataka. TB Project has been successful and through Programme Integration TB as an opportunistic infection has been addressed. H2P Programme supported by USAID is implemented in 9 districts of the state of Punjab, AP and Maharashtra with the total budget amounting to INR 1.62 crores. Community preparedness for influenza programme supported by WHO is being implemented in 9 target states i.e., West Bengal, Tripura, Orissa, Uttarakhand, J&K, Chhattisgarh, Gujarat, Dadra & Nagar Haveli and Andhra Pradesh. Total Budget INR 20.00 lakhs. The health maternity and child welfare services continued throughout the services under the Red Cross banner at its 440 centres.

Indian Red Cross blood banks contribute 10% of the total blood requirement in the country. The IRCS NHQ Blood Bank collects 85% blood from voluntary donors against the national average of 62%. The (NHQ) Blood Bank is fully equipped with infrastructure to provide blood services and training facilities of the highest standards, as per national guidelines. IRCS, NHQ Blood Bank is the first Red Cross Blood Bank in the non governmental set up in the country to be designated as Model Blood Bank by NACO. The upgraded Model Blood Bank was inaugurated by Hon'ble Minister of Health & Family Welfare, (Chairman of IRCS) Shri Ghulam Nabi Azad on 14th June 2010. During the period 2009-10 the blood bank collected were 26486 units of blood and 293 blood donation camps held.

13.4.5. Family News Service (FNS)

FNS is provided to the anguished families and its members separated due to conflicts, disasters, migration and other socio-economic situations. During the last financial year 560 Red Cross Messages were exchanged, and 21 tracing cases were successfully solved.

13.4.6. Post Graduate Diploma Course in Disaster Preparedness and Rehabilitation

This course has been initiated by the Indian Red Cross Society to develop knowledge on disaster preparedness, rehabilitation, and sustainable development including framework and skills for addressing anticipated hazards, disaster and complex emergencies with an emphasis on either post development or majority world context. Four batches have successfully completed the course and process for enrollment for the 5th batch has started.

Following facilities have been added and upgraded:

- Ham Radio
- GIS lab
- Emergency operation centers
- Facilities for computer training.

13.4.7. Health Promotion through Ayurveda & Yoga

IRCS in collaboration with Department of Ayush, Ministry of Health and Family Welfare, has started 50 hours certificate course (3 month part-time programme).

Due to drug resistance in the post antibiotic era this course shall initiate people to discover alternate ways of medication, recovery and better health. The first batch was started on 2-2-2010 with 50 students. Most of the course participants reported enhanced level of energy, cure from ailments and overall better health. Due to overwhelming response and excellent feedback more batches are being started on regular basis.

13.5 ST. John Ambulance India

The National Council of St John approved the upgraded version of the First Aid Manual for use by the St John Ambulance (India) as well as the Indian Red Cross, which would be available from January 2011. The National Council also approved the establishment of fourteen St John Centers in Tamil Nadu besides one centre each in Jharkhand, S.E.C.R Railway Chattisgarh, Bilaspur. During the period April 2010 to November 2010, National Headquarters computerized, printed and issued 3,93,187 proficiency certificates to the eligible candidates who have qualified for First Aid, Home Nursing, Hygiene and Sanitation, Mother Craft and Child Care.

13.6 EMERGENCY MEDICAL RELIEF

Health Sector Disaster Management:

Emergency Medical Relief Division (EMR) of Directorate General of Health Services, Ministry of Health & Family Welfare, Govt. of India is mandated for prevention, preparedness, mitigation and response on health sector disaster management activities and coordinates health activities in terms of manpower and material logistics support to the states.

13.6.1. Preparedness and Response for Disasters

13.6.1.a. Preparedness for disasters:

The Emergency Support Function Plan was circulated to all concerned and it contains the emergency support functions assigned to the MOHFW which includes details of nodal officers for coordination, crisis management & quick response at Hqrs. and field level, resource inventory etc. This plan also contains instructions regarding deployment of resources in the event of disasters. Advance Trauma Life Support training were institutionalized in two Central Government Hospitals. About 200 doctors from Delhi & Central Government Hospitals were trained in Advance Trauma Life Support.

13.6.1.b. Response

Ministry of Health and Family Welfare was represented in the central assessment teams of the Ministry of Home Affairs that visited Leh (flash floods), Uttarakhand (flood) and Uttar Pradesh (flood) for Rapid Health Assessments. Relief were recommended in terms of norms under Calamity Relief Fund /National Calamity Contingency Fund. Public Health Expert teams were deputed to investigate disease outbreaks in the States of Gujarat, Uttar Pradesh, Orissa, Bihar and Kerala during the current year. The concerned State Governments were advised on prevention and containment measures.

13.6.2. Public Health Emergencies

13.6.2.a. Pandemic Influenza –Preparedness and Response.

Influenza like illness caused by Influenza A [H1N1], a re-assorted influenza virus, was reported from Mexico on 18th March, 2009 and rapidly spread to affect 214 countries. World Health Organization raised the pandemic alert level to 6, declaring pandemic of influenza H1N1 of moderate severity.

The preparedness measures undertaken for avian influenza came handy. The existing measures were scaled up and additional measures put in place to limit the entry / spread of disease into India and to mitigate the impact of the evolving pandemic.

13.6.2.b. Action Taken by Govt. of India

Government of India took a series of action to prevent/limit the spread of Pandemic Influenza A H1N1 and to mitigate its impact. Surveillance to detect clusters of influenza like illness is being done through Integrated Disease Surveillance Project. Laboratory network has been strengthened, from the then existing two laboratories to forty five laboratories (26 in Govt. Sector and 19 in

Private Sector) for testing the clinical samples. Government of India procured 40 million capsules of which about 28 million have been given to the States/UTs which is also used for preventive chemoprophylaxis. Government of India supported State Government/UTs by strengthening of logistics (medicine, PPE, diagnostic kits, etc.). Retail sale of Oseltamivir was allowed under Schedule X of Drugs & Cosmetic Act. Number of retail outlets have been increased to improve access to antivirals. Three Indian manufacturers of Vaccine are being supported to manufacture H1N1 vaccine. 1.5 million doses of vaccine have been imported to vaccinate health care workers. Training of State/District level rapid response teams are supported by Ministry of Health and Family Welfare. Indian Medical Association has been also provided funds to train private practitioners. All States were requested to gear up the State machinery, open large number of screening centres and strengthen isolation facilities including critical care facilities at district level. A task force in the I&B Ministry is implementing the media plan. Travel advisory, do's and don'ts and other pertinent information has been widely published to create awareness among public. Senior Officials and Public health teams were deployed to monitor the situation from time to time. Necessary guidelines were issued to the States from time to time. All informations were made available on dedicated website www.mohfw-h1n1.nic.in.

13.6.3. Medical Care Arrangements on Special Occasions

Medical care arrangements were organised by the Dte.G.H.S. for Republic Day and Independence Day celebrations and important International Conferences etc. Medical care arrangements were also made during the State Visits of Heads of States. EMR Division has been the focal point in monitoring the medical care arrangements for the Commonwealth Games 2010. Regular meetings were held and progress reviewed. It also supported the Delhi Government in providing medical care at 7 competition and 3 training venues. Ministry of Health & FW supported the State of Uttarakhand in terms of manpower, drugs, equipments to the Maha Kumbh held between January to April 2010.

13.7 E- HEALTH (TELEMEDICINE)

E-Health/Telemedicine can expand the reach, range and quality of Primary Health care services available in Public Health system. The efforts would seamlessly synergize with the overall health sector rejuvenation being

undertaken under NRHM. In most hard to reach areas of the country, the telemedicine technology has the potential to transform the quality and range of services initiated through health sector reforms under National Rural Health Mission. Many other agencies are also undertaking e-Health initiatives like Department of Information Technology, Indian Space Research Organization, Sanjay Gandhi Post Graduate Institute, Lucknow, All India Institute of Medical Sciences, New Delhi, Post Graduate Institute of Medical Education and Research, Chandigarh.

As part of the e-Health initiative in the Ministry of Health & Family Welfare, Government of India, has initiated a scheme for establishing National Medical College Network for Rs.60 crores. The National Medical College Network will be used for the educational needs of medical students, teachers & healthcare professionals. The Telemedicine Centre at SGPGI, Lucknow would be the National Resource Centre and network hub. The National Resource Centre and the Regional Resource Centres identified under National Medical College Network would be strengthened/upgraded and linked through a network to various medical colleges and medical institutes to undertake a capacity building exercise and bridge the knowledge and resource gap.

Tele-Ophthalmology

Tele-ophthalmology is a new approach for ensuring connectivity and data transfer. With the objective to provide health care services in the rural areas and to nullify the shortage of ophthalmologist in the country, National Program Control of Blindness launched Tele-ophthalmology project in India. It is important in the view of the fact that most of the health facilities are centered on big cities and towns and significant no. of patients from rural/tribal areas can be managed with some advice and guidance from specialists and super specialist in the cities and towns. This technology is helpful in elimination of preventable blindness from the rural, tribal and un-served area in the country.

OncoNET India Project

Under this project 2 Regional Cancer Centers (RCCs) and two associated Peripheral Cancer Centers (PCCs) have been connected. These are:

1. PGIMER, Chandigarh (RCC) with Civil Hospital, Bhatinda

2. KMIO, Bangaluru (RCC) with District Hospital, Mandya

These four centers are using this facility for early diagnosis and treatment of patients and further referring of patients to the respective RCC.

At present, the following are in the process of being connected with the network and these are:

1. JIPMER Puducherry (RCC) with Government Hospital, Yanam (PCC)
2. Govt. Arignar Anna Memorial Cancer Hospital, Kancheepuram (RCC) with Govt. Hospital Arakkonam (PCC)
3. SKIMS, Srinagar (RCC) with District Hospital, Poonch (PCC).

13.8. CLINICAL ESTABLISHMENTS ACT, 2010

The Clinical Establishments (Registration & Regulation) Bill, 2010 which aims at providing registration and regulation of clinical establishments in the country with a view to prescribing the minimum standards of facilities and services for them, has been passed by both Houses of Parliament. This Act has been notified in the Gazette of India on the 19th August, 2010. The Act will initially take effect in four states viz., Arunachal Pradesh, Himachal Pradesh, Mizoram, Sikim, and all union territories. Subsequently, the Act may be adopted in other States also. The Ministry is now in the process of formulating Rules under the Act. This is a progressive, pro-public and user friendly legislation which will enable a national data base for all clinical establishments including the Government hospitals in the country.

13.9 INDIAN ORGAN DONATION DAY

The 6th World and 1st Indian Organ Donation Day and Organ Donation Congress 2010 was organized on 27-28 November 2010 at New Delhi. Scientific meeting of 'Organ Donation Congress 2010' was held at Vigyan Bhawan and inaugurated by Shri Ghulam Nabi Azad Hon'ble Union Minister of Health & Family Welfare. Shri Dinesh Trivedi, Hon'ble Union Minister of State Health & Family Welfare was the guest of honour on the occasion.

About 500 delegates and invited guests participated in the scientific event. Experts in the field of organ transplant from various organizations like World Health Organization



Shri Ghulam Nabi Azad, Hon'ble Union Minister of Health & Family Welfare honoring a relative of deceased organ donor on the occasion of inauguration of 'Organ Donation Congress 2010.

(Geneva), Fair Transplant (Geneva), The Transplantation Society (USA), German Organ Procurement Organisation (Germany), National Transplant Organization (Spain), Red Cross Society (Thailand), International Society of Nephrology (Australia) and various other international societies from China, South Africa etc. participated in these two day events. Various national associations related to organ transplantation like Indian Society of Organ Transplantation, Indian Society of Nephrology, Indian Society of Urology, Gastroenterology Society of India, Cardiothoracic Society etc were co-partners of the event. Private sector and NGOs also extended their support and participated. Nine deceased organ donors were also honoured by Shri Ghulam Nabi Azad, Hon'ble Union Minister of Health & Family Welfare with silver plated plaques at Vigyan Bhawan.

A painting competition and slogan competition on the theme of 'organ donation' was also held at Delhi University before the main event was held. A rally and painting competition was also organised at India Gate on 27th November 2010. About 2500 children and others participated in the rally and painting competition. Mrs. Sheela Dixit, Hon'ble Chief Minister of Delhi was chief guest at India Gate function. Shri Ghulam Nabi Azad, Hon'ble Union Minister of Health & Family Welfare presided over the function. The evening function was attended by about 5000 people including eminent invited experts, faculty, international and national delegates of the conference and general public. The winners of various activities and distinguished international delegates were also honoured in the evening function. This event has taken the agenda of deceased organ donation to the

forefront and increased awareness in the general public which is likely to change the attitude in increasing the organ availability.

Action plan for implementation of THOA amendments to initiate National Organ Transplant Program, was

approved in November 2010. An amount of Rs. 25 crores for 2010-11 & 2011-12 has been allocated for 11th plan for this purpose which will be utilized for Tissue bank, Model Organ procurement & distribution organization (MOPDO), transplant coordinators training and IEC/ media purpose for mass awareness.



A view of painting competition on the occasion of Organ Donation Day on 27th November 2010.

Quality Control in Food & Drugs Sector, Medical Stores

14.1 FOOD SAFETY AND STANDARDS AUTHORITY OF INDIA

The Food Safety and Standards Authority of India (FSSAI) has been established under the Food Safety and Standards Act, 2006 as a statutory body for laying down science based standards for articles of food and regulating manufacturing, processing, distribution, sale and import of food so as to ensure safe and wholesome food for human consumption.

Highlights of the Food Safety and Standards Act, 2006 aims to establish a single reference point for all matters relating to Food Safety and Standards, by moving from multi-level, multi-departmental control to a single line of command. Various Acts and Orders that have hitherto handled food related issues in various Ministries and Departments have been integrated in the Food Safety and Standards Act, 2006. Thus, the Central Acts like Prevention of Food Adulteration Act, 1954, Fruits Products Order, 1955, Meat Food Products Order, 1973, Vegetable Oil Products (Control) Order, 1947, Edible Oil Packaging (Regulation) Order, 1998, Solvent Extracted Oil, De-oiled Meal and Edible Flour (Control) Order, 1967, Milk and Milk Products Order, 1992 etc will be repealed after commencement of the FSS Act, 2006.

Notification

Ministry of Health and Family Welfare, Government of India is the administrative ministry for FSSAI which is the agency for implementation of the new law. The Authority was notified on 5th September, 2008 with 22 members. The head office of the Authority is at Delhi. The Authority has started its operations with Chairperson and Chief Executive Officer who are in the rank of Secretary and Additional Secretary to Government of India respectively, and the staff who were implementing the various food related orders.

Shri P.I. Suvrathan, former Secretary to Ministry of Food Processing Industries, is the Chairperson of FSSAI. Shri V. N. Gaur in the rank of Additional Secretary to Government of India, is the Chief Executive Officer of the Authority.

FSSAI has been mandated by the FSS Act, 2006 for performing the following functions:

- Framing of Regulations to lay down the Standards and guidelines in relation to articles of food and specifying appropriate systems of enforcing various Standards thus notified.
- Laying down mechanisms and guidelines for accreditation of certification bodies engaged in certification of food safety management systems for food business.
- Laying down procedure and guidelines for accreditation of laboratories and notification of the accredited laboratories.
- To provide scientific advice and technical support to the Central Government and State Governments in matters of framing the policy and rules in areas which have a direct or indirect bearing on food safety and nutrition.
- Collect and collate data regarding food consumption, incidence and prevalence of food hazards, contaminants in food, identification of emerging risks, food surveillance, introduction of rapid alert system etc.
- Creating an information network across the country so that the public, consumers, Panchayats etc receive rapid, reliable and objective information about food safety and issues of concern.

- Provide training programmes for persons who are involved or intend to get involved in food businesses.
- Contribute to the development of international technical standards for food , sanitary and phyto-sanitary standards.
- Promote general awareness about food safety and food standards.

Composition of FSSAI

The FSSAI consist of a Chairperson, Member Secretary and 22 members which includes representative of Food industry (Small Scale & Large), Food technologists, States & UTs, Farmer's orgn etc.

Steps Taken By FSSAI till December, 2010

1. Six meetings of the Authority have been held so far in which various rules and regulations have been approved.
2. The Central Advisory Committee (CAC), as per Section 11 of the Food Safety and Standards Act, 2006, was constituted and notified on 5th October, 2009. The CAC comprises of 44 members and the Chief Executive Officer of FSSAI is the ex-officio Chairperson. Two meetings of Central Advisory Committee have been held so far.
3. Food Authority has constituted a Scientific Committee and eight Scientific Panels for providing scientific opinion to the Food Authority on various issues consisting of independent scientific experts:
 - a) Panel for food additives, flavourings, processing aids and materials in contact with food.
 - b) Panels for pesticides and antibiotic residues.
 - c) Panel for genetically modified organisms and foods.
 - d) Panels for functional foods, nutraceuticals, dietetic products and other similar products.
 - e) Panel for biological hazards.
 - f) Panel for contaminants in the food chain
 - g) Panel for labelling and claims/Advertisements.
 - h) Panel for method of sampling and analysis.
- Two meetings of the Scientific Committee have been held so far.

- The second meeting of the scientific panel for functional foods, nutraceuticals, and dietetic products, genetically modified organisms and foods were held on 29th March, 2010 and 5th April, 2010 respectively.
 - The third meeting of the scientific panel for genetically modified organisms and foods was held on 20th December, 2010.
4. Consultation meetings on the draft Rules and Regulations under Food Safety and Standards Act, 2006 including process for Registration and Licensing were held region wise across India during 2009 with State Government/UTs Food Safety Commissioners, stakeholders. A notification on the draft Food Safety and Standards Regulations (including Draft Regulations for Licensing Registration) had been published in part III Section 4 of Extraordinary Gazette of India dated the 21st October, 2010 for the information of all persons like to be affected thereby inviting objections and suggestions within thirty days. It has also been notified by the Ministry of Commerce and Industry to WTO as per the requirements of SPS and TBT agreements.
 5. An Integrated IT-enabled food import information system is required to be established to facilitate FSSAI to regulate safety of food imports into the country an efficient, transparent and hassle free manner. For this purpose, the project of **Structuring and Implementation of Integrated IT-enabled Imported Food Safety System** by Food Safety and Standards Authority of India (FSSAI) was assigned to the National Institute of Smart Government (NISG). National Visioning workshop and Regional workshop to discuss on the preparation of a Blue Print for Structuring and Implementation of integrated IT enabled Imported Food Safety System under FSSAI were held during 2010.

Based on the reports submitted by NISG and in active consultation with all stake holders, the imported food clearance process is being taken over by FSSAI in a phased manner to ensure that safe food is imported into the country. FSSAI has since taken over the function of PHO in the ports of Kolkata, Haldia, Chennai, Mumbai, Jawahar Lal Nehru Port Trust in Aug-Sep, 2010.

6. The Food Authority is now the National Codex Contact Point (NCCP) for maintaining contact with the Codex Alimentarius Commission, exchanging information, responding to queries, participating in meetings etc.

The Food Authority has approved the guidelines for participation in codex meetings and preparation of response to Codex matters and also guidelines for the Codex Contact Point, the National Codex Committee and National Shadow Committees. The Food Authority has also established the various Shadow Committees for reviewing the agenda of the Codex Alimentarius Commission and its subsidiary committees and finalizing India's comments on the various agenda items before they are sent for approval of the government.

During the year 2009-10, Food Authority had participated in the 26th Session of Codex Committee on General Principles (CCGP) held in April, 2010 in Paris, 34th Session of Codex Alimentarius Commission (CAC) held in July, 2010 in Geneva, 17th Session of Coordinating Committee for Asia (CCASIA) held in November, 2010 in Indonesia.

7. FSSAI constituted the following Expert Groups to handle specific assignments for a specific duration:
 - Amaze Brain Food
 - Energy Drinks
 - Fats and Oils
 - Food for special purpose and nutritional uses.
8. Meeting with State Food Commissioners and other stakeholders have been organised for obtaining feedback on transition to FSSA.
9. Workshops have also been conducted across India inviting suggestions on transition from PFA to FSSA.
10. Advisories have been issued on hazards from Melamine contamination in Chinese milk products, Salmonella contamination in Peanut Butter, antibiotics in honey.
11. The following studies which were initiated by FSSAI are in various stages of operation as enumerated below:
 - To review the present status of safety and quantity of food as well as sanitary and hygiene conditions

of the food made available to children in school premises and to develop guidelines/manual for improvement in quality of food served in schools. In this regard FSSAI have received a proposal from IIM Bangaluru which is being evaluated. The expected outcome of the study would be development of guidelines for safety of food available to children in schools.

- Diet Study titled, "Assessment of consumption of processed and non-processed foods in India" by NIN.
 - Laboratory Gap Study by QCI is under process. QCI has submitted interim report containing assessment of 35 laboratories, which has been duly approved by the Authority.
12. Draft framework for interim arrangements of GM processed food was earlier approved by FSSAI but now it would be regulated under Biotechnology Regulatory Authority of India (BRAI) Bill, 2010 moved by Department of Biotechnology.
 13. Training programmes have been held for Food Safety Commissioners, Food Safety Officers and Designated Officers during June- September, 2010 with a view to prepare them for transition from PFA to FSSA regime.
 14. An International Conference on Best Practices in Food Safety Implementation was organised in Delhi in November, 2010 in collaboration with TERI and MSU.
 15. Following drafts for Consultation have been prepared:
 - Draft on Regulation of Trans Fatty Acids, TFAs, in Partially Hydrogenated Vegetable Oils, PHVOs.
 - Draft Regulation on Foods for Special Nutritional or Dietary Uses
 16. Guidelines on the following have been prepared:
 - Scheme of Research and Development for Food Quality and Safety.
 - Guidelines and Application Forms Meat Food Product Order- MFPO
 - Setting up of unit under Fruit Products Order.

17. The following are being finalised keeping in view recommendations of stakeholders:
 - The draft of Code of Self Regulation in Food Advertisement
 - The draft document for Food Safety in Eating Establishments.
18. New structure of the Authority has been approved.
19. Portal of FSSAI is in place. Public notices and various drafts for public consultation are posted on web through this portal.
20. Modernisation of the existing offices has been undertaken by hiring new offices, providing computers and internet, installing various software packages for office automation like com- ddo package, file tracking system, e- office etc.
21. A Pilot project called “Safe Food, tasty Food” a first of its kind for upgrading the safety and quality of food served in eating establishments across the country has been prepared and circulated to all the State Govts. /UTs for guidance.

What to expect in the near future

- Implementation of FSS Act and repeal of the PFA Act & other Orders, relating to Fruits & Vegetables, Edible Oil, and Meat & Milk.
- Draft paper on surveillance of food & food borne disease.
- A framework for Food Safety Management System comprising of :
 - Competency framework for food safety professionals to ensure that they retain the skill and competence requirements needed.
 - Framework for Certification bodies / Registration bodies
 - Procedure for recognizing equivalence of food safety system with national standards.
 - Guidance document for implementation of GMP/ GHP.
- Training policy for FSSAI
- Laboratory upgradation policy
- Consumer food safety scheme/ competitive grant for R&D projects
- Scheme for Centre of Excellence and Food Safety Centres
- Strategy for revision of standards
- Communication strategy as a part of the risk analysis and awareness generation
- Pilot project on traceability and recall
- Manuals and guidelines for implementing the rules and regulations
- Finalization of voluntary code on advertising
- Regulation on labelling & claim and advertising
- Accreditation mechanism and procedure for the food testing laboratories
- A system for accreditation of food safety audit personnel and organisations.
- Fixation of limit on Trans Fatty Acids
- Implementation of IT enabled import monitoring system related to food safety in major entry points of imported food in the country
- Regulation of GM Foods, Alcoholic drinks, Olive oil and Energy drinks.
- Continuation of capacity building programmes for food safety personnel all over the country.

14.2 CENTRAL DRUGS STANDARD CONTROL ORGANIZATION(CDSCO)

Public Health is one of the major objectives of the Government of India and to achieve this it is important that drugs available to the public are safe, potent and efficacious. Regulatory control over the quality of drugs in the country is exercised through the Drugs and Cosmetics Act, 1940 and Rules made there under. The manufacture and sale of drugs is looked after by the State Governments while imports, permissions for marketing of New Drugs in the country, Clinical Trials on New Drugs are the responsibility of the Central Government. At the Central level these functions are performed by the Central Drugs Standard Control Organization (CDSCO) headed by the Drugs Controller General (India).

A. CDSCO Organization

The Central Drugs Standard Control Organization (CDSCO) has its head quarters at Food and Drug Bhawan, Kotla Road, Near ITO, New Delhi-110002. CDSCO has under its control Zonal/Sub-zonal offices, Port offices and Drugs Testing Laboratories to perform various regulatory functions in respect of quality control of drugs.

CDSCO has six zonal offices situated at Mumbai, Ghaziabad, Kolkata, Chennai and Ahmadabad and three sub-zonal offices at Bangalore, Chandigarh and Jammu. These offices are involved in the GMP audits and inspection of manufacturing units of large volume parental, sera and vaccine, recombinant DNA (r-DNA) derived drugs, blood banks and blood product manufacturing units. Zonal offices also coordinate with the State Drugs Control Organizations situated under the respective zone or subzone in matters of quality control of drugs in the country.

Regulatory control over the quality of drugs, cosmetics and medical devices imported into the country is exercised by the Port offices situated at Sea ports/Airports in Delhi, Mumbai, Nhava Sheva, Chennai, Kolkata, Cochin and Ahmadabad.

There are Six laboratories functioning under CDSCO. Four Central Drug Testing Laboratories are situated at Kolkata, Mumbai, Chennai and Kasauli and two regional Drug Testing Laboratories are situated at Guwahati and Chandigarh. These laboratories are engaged in testing of samples of drugs in the country.

Functions of CDSCO

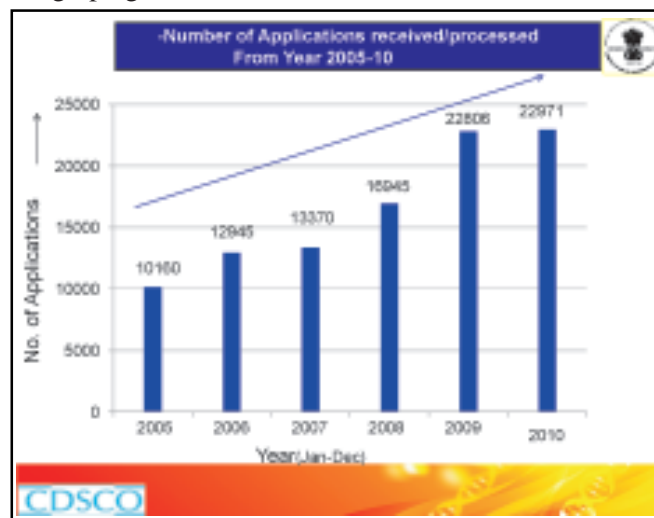
1. Approval of new drugs including vaccines to be introduced in the country.
2. Grant of permission to conduct clinical trials in the country.
3. Registration and grant of import licenses for drugs, cosmetics and notified medical devices.
4. Regulation of quality of drugs, cosmetics and notified medical devices imported into the country.
5. Meetings of the statutory committees like Drugs Technical Advisory Board and Drugs Consultative Committees.
6. Laying down regulatory measures and recommend amendments to the Drugs and Cosmetics Act and Rules made there under.

7. Prescribing regulatory procedures for regulating quality of drugs, cosmetics, diagnostic reagents and medical devices.
8. Approval of Licence as Central License Approving Authority for manufacture of large volume parenterals, sera and vaccines, biotechnology products, medical devices and operation of blood banks and manufacture of blood products.
9. Coordinating the activities of the States and advising them on matters relating to uniform administration of the Act and Rules in the country.

B. Drug Industry

Indian pharmaceutical industry is one of the most vibrant sectors of Indian industry and has maintained a growth of 11-12%. It is 3rd largest in the world by volume. The total size of the Indian Pharmaceutical Industry is about Rupees 1,00,000 crore out of which exports account for Rupees 42,000 crore and the rest is the size of the domestic market. It is 8% of global Production and 2% of world Pharma market. A large number of bulk drug units from India are exporting drugs to the US and Europe. India has the highest number of USFDA approved plants outside USA. There are 169 USFDA approved manufacturing facilities in India. Indian pharma companies are filing highest Abbreviated New Drugs Approval (ANDA) applications in the USA. Further, there are 153 manufacturing facilities in the country which have been certified by European Directorate of Quality Medicine (EDQM) for export of drugs to the European Union.

Such excellent growth in the Pharma sector has resulted in high expectations from the office of Drugs Controller General (India). There is significant increase in the workload of CDSCO in the last few years as shown in the graph given below:-



The number of applications received and processed in CDSCO has increased from around 10,000 in 2005 to 23,000 by 2010.

C. Strengthening of CDSCO

In view of this scenario, the Ministry of Health and Family Welfare has taken initiatives to strengthen the manpower at CDSCO to cope up with the increased workload. The Government of India sanctioned 216 new posts in the CDSCO to strengthen the headquarters as well as zonal and port offices of CDSCO. The present strength of CDSCO is 124 and by filling of the vacant posts the strength would rise to 327. The posts are being filled through UPSC. 63 New Drug Inspectors have already joined while the remaining vacant posts are at various stages of recruitment process through UPSC. The Government is also providing additional manpower to CDSCO through the appointment of contractual staff to assist the Department in handling the workload.

New Sub-zonal offices have been created at Bangalore, Jammu and Chandigarh for better coordination with the State Drugs Regulatory Authorities in these regions.

D. Regulatory Activities at the Headquarters

1. Quality Control over import of drugs and cosmetics

The CDSCO regulates the quality of drugs and cosmetics imported in to the country through the system of registration and licensing as provided under the Drugs and Cosmetic Rules, 1945. This includes registration of overseas manufacturing sites and of drugs, both bulk drugs and finished formulations. Import licences are then granted to the Indian importers for import of the drugs from these manufacturers. The quality of imported drugs is, however, further regulated at the port offices when the drugs are actually imported.

During the year 2010-11, the office of DCG(I) has granted 391 registration certificates of the manufacturers of the drugs who intended to export their drugs to India and have granted 2509 licences for import of drugs into the country.

The Office of DCG(I) also grants no objection certificates for dual use items (drugs) which may not be imported for use as a drug and extension of shelf life on the basis of stability studies conducted by the manufacturer for the purpose of export. The office of DCG(I) granted 241

'No Objection Certificates' for dual use items and shelf life extension for export purposes in the year 2010.

Drugs and Cosmetics Rules have been amended to incorporate a system of registration of cosmetics imported into the country and the registration will become mandatory for import of cosmetics from April 2011.

2. Quality Control Over Notified Medical Devices

Medical Devices notified by the Government of India under the Drugs and Cosmetics Act, 1940 are regulated by CDSCO under the provisions of the Drugs and Cosmetics Rules. The quality control over these devices is regulated through the system of registration and import licences as applicable for drugs.

During the year 2010 the office of DCG(I) has granted 301 registration certificates of the manufacturers of the Medical Devices who intended to export their products to India and has granted 680 licences for import of Medical Devices into the country. Apart from this, in 150 cases permissions for import of Medical Devices for test and analysis have also been granted.

The manufacture of the notified devices is approved by the DCG(I) as Central Licence Approving Authority. During the year 2010, 37 manufacturing licences were approved by DCG(I).

The Office of DCG(I) also processes the applications for grant of permissions for clinical trials in the country. The office of DCG(I) has processed 40 such applications for grant of permissions for clinical trials on Medical Devices and granted permission for clinical trials in three cases.

3. Grant of permission for introduction of new drugs in the country

New Drugs are permitted to be marketed in the country in accordance with the permission granted by the Drugs Controller General (India) after ensuring that these are safe and efficacious and comply with the requirements of Schedule Y of the Drugs and Cosmetics Rules. The applicants are required to provide technical data in respect of safety and efficacy before these could be permitted to be marketed in the country. The definition of the new drug also includes Fixed Dose Combinations which are required to be marketed for the first time in the country.

During the year 2010-11, the office of DCG(I) granted 1057 permissions for manufacture or import of new drugs. Apart from this, 180 permissions for additional indications / additional strength in already approved drugs were also granted.

In case of vaccines each manufacturing process is required to be approved as a new drug and is evaluated for safety and efficacy before permission for marketing is granted.

During the year 2010-11, permission for manufacture of vaccine as New Drugs was granted in 17 cases.

4. Clinical trials

Clinical research is gaining momentum in the country as there is an increased level of acceptance of Indian research in the developed countries. The availability of highly developed infrastructure of clinical research has made India a destination for global clinical research. Multi centric trials are conducted by pharma companies simultaneously in different parts in the world to assess the safety and efficacy of the drug in different ethnic groups and these are termed as Global Clinical Trials. The office of DCG(I) is receiving a large number of applications for grant of permissions for conducting global clinical trials in India. During the year 2010, the office of DCG(I) has granted permissions for 239 Global clinical trials.

Clinical Trials are also permitted to be conducted in the country to examine the safety and efficacy of the drugs proposed to be marketed in the country. The protocols of such trials are examined by the office of DCG(I) before these permission are granted. 272 permissions for conducting such clinical trials in the country were granted in 2010. In case of vaccines, permissions for clinical trials were granted in 26 cases.

The Office of DCG(I) also grants permissions for conducting bioequivalence studies in chemically equivalent drug formulations to study whether they produce identical therapeutic response in patients. Permissions for 443 such studies were granted to conduct of bioequivalence studies in 2010.

Various initiatives have been taken for further streamlining the regulatory control over the conduct of clinical trials.

- a. Registration of clinical trials has been made mandatory with the Centralized Clinical Trial Registry of ICMR with effect from 15th June 2009.

- b. Guidelines for conducting Clinical Trials inspections have been posted on the website of CDSCO (i.e. cdsco.nic.in).
- c. Dugs and Cosmetics Rules are being amended to make mandatory the registration of Clinical Research Organizations.
- d. The Drugs and Cosmetics Act is proposed to be amended to include a separate Chapter on Clinical Trials.

5. National Pharmacovigilance Programme

A Pharmacovigilance Programme of India (PVPI) has been launched on 14.07.2010 to capture Adverse Drug Reactions data in Indian population in a systematic way. The programme will be coordinated by the Department of Pharmacology, All India Institute of Medical Sciences, New Delhi which will act as the National Coordinating Centre (NCC). The Centre will operate under the supervision of a Steering Committee, under the chairmanship of Director, AIIMS, New Delhi with DCG(I) as one of the members of the Committee.

The objectives of the programme are as under:

- To monitor Adverse Drug Reactions (ADRs) in Indian population
- To create awareness amongst health care professionals about the importance of ADR reporting in India
- To monitor benefit-risk profile of medicines
- Generate independent, evidence based recommendations on the safety of medicines
- Support the CDSCO for formulating safety related regulatory decisions for medicines
- Communicate findings with all key stakeholders
- Create a national centre of excellence at par with global drug safety monitoring standards

In the first phase of the programme, ten medical colleges spread across the country will collect the data of Adverse Drug Reactions (ADRs) in Indian population, and subsequently it will be expanded to other medical colleges also. These medical colleges will act as peripheral Adverse Drug Reaction Monitoring and Reporting (ADR) Centres.

These ADR Centres will be responsible for collecting the ADR reports, performing the follow up with the complainant to check completeness of the ADR reports as per Standard Operating Procedures (SOP's) prescribed for the purpose. The Data so collected will be forwarded to the National Coordinating Centre (NCC) at AIIMS, New Delhi.

The Medical Colleges involved in the programme will be provided Technical, Administrative & financial support by CDSCO. This support will have the following components:

- 1) Providing contractual Manpower in the form of one Technical Associate (TA) to each of the ADR Centre.
- 2) Administrative & financial support in the form of Computers, Printers, Photocopiers, internet services etc.

6. Drugs Technical Advisory Board

Drugs Technical Advisory Board is a statutory body under the Drugs and Cosmetics Act, 1940 to advise the Central Government on technical matters arising out of the administration of the said Act and Rules made thereunder and to recommend amendments to the Drugs and Cosmetic Rules.

7. Drugs Consultative Committee

The Drugs Consultative Committee is another statutory committee consisting of Central and State Drug Controllers to advise the Government on matters relating to uniform implementation of the Drugs and Cosmetics Act and Rules made thereunder throughout the country. The 41st meeting of the DCC was held on 28th October, 2010.

8. Banning of Drugs

The Drugs and Cosmetics Act, 1940 provides powers to Central Government to prohibit manufacture etc., of any drug or cosmetic in public interest. Drugs about which reports are received that these are likely to involve risk to human beings or animals in the present context of the knowledge are examined for their safety and rationality through the expert committees and DTAB. Manufacture and sale of the drug if considered necessary is prohibited by Central Government in public interest through a gazette notification. During the year 2010 the Drug Rosiglitazone, an anti-diabetic drug, was prohibited for manufacture and

sale in the country vide Gazette Notification GSR 910(E) dated 12.11.2010.

9. Training Programmes

Training Programmes for updating the skills of the personnel working in CDSCO were held during the period in various fields. Workshops were held on clinical trial inspections, Medical Devices, training of New Drug Inspectors, Regulatory affairs and Pharmacovigilance.

10. Transparency in the functioning

The approvals granted by the CDSCO are regularly posted on the website www.cdsc.nic.in for the purpose of transparency and accountability. The licences and approvals granted are put on display daily on two LCDs for the information of the general public at FDA Bhavan, Kotla Road, New Delhi. File tracking system has been introduced in the CDSCO headquarters. The approval letters in respect of Clinical trials and registrations of imports have also been started to be posted on the website.

E. Port Offices

The regulatory control over the quality of imported drugs and cosmetics is exercised at the port of entries at Sea ports/Airports situated at Delhi, Mumbai, Nhava Sheva, Chennai, Kolkata, Cochin and Ahmadabad. The quality is checked through random sampling of drugs from consignments, for test and analysis.

Initiatives have been taken for creation of pharmaceutical zones at Delhi and other air ports for providing dedicated areas for storage of drugs and sampling of drugs meant for import or export to ensure that the quality of drugs does not deteriorate at the ports because of inappropriate storage.

F. Zonal Offices

Six Zonal offices located at Ghaziabad, Mumbai, Kolkata Chennai, Ahmadabad, Hyderabad and three sub zonal offices at Chandigarh, Jammu and Bangaluru, co-ordinate with State Drug Control Authorities under their jurisdiction for uniform standards of inspection and enforcement. The zonal offices are involved in the GMP audits and inspection of manufacturing units of large volume parental, sera and vaccine, recombinant DNA (r-DNA) derived drugs and blood banks and blood product manufacturing units and coordination with the State Drugs Control Organizations situated under the respective zone or subzone.

G. Central Drugs Testing Laboratories

There are six Central Drug Testing Laboratories engaged in the testing of drugs and cosmetics in the country.

1. Central Drug Laboratory, Kolkata
2. Central Drug Testing Laboratory, Mumbai
3. Central Drug Testing Laboratory, Chennai
4. Central Drug Laboratory, Kasauli
5. Regional Drug Testing Laboratory, Guwahati
6. Regional Drug Testing Laboratory, Chandigarh.

The Central Drug Laboratory, Kolkata is the National statutory laboratory for quality control of Drugs and Cosmetics in the country. It is an appellate laboratory in matters of dispute regarding testing of drugs. The laboratory is NABL accredited laboratory for chemical and biological sections. The Central Drug Testing Laboratory, Mumbai is a statutory laboratory involved in testing of samples of drugs from the ports, new drugs and oral contraceptive pills. It is an appellate laboratory for copper T – intrauterine contraceptive device and tubal rings. The Central Drug Testing Laboratory, Chennai is an appellate laboratory for condoms and is testing, as Government analyst, samples of cosmetics and drugs. The laboratory has been granted NABL accreditation for both chemical and mechanical sections. Central Drug Laboratory, Kasauli is Government testing laboratory for sera and vaccines. Regional Drug Testing Laboratory, Guwahati is testing samples of drugs received especially from States in the East Zone. The laboratory is NABL accredited laboratory for both chemical and biological testing. The Regional Drug Testing Laboratory, Chandigarh which has been recently established is involved in testing of survey samples.

H. New Regulatory Initiatives

1. Overseas Inspections

Overseas inspections of drug manufacturing sites would be initiated from the year 2011. The inspections would be carried out in the first place in certain units located in Italy and China.

2. Strengthening of Drugs Testing Laboratories

The testing capacities of the Central Drugs Testing Laboratories are being strengthened by increasing the manpower as well as equipments available for testing at

these laboratories. An amount of Rs. 6.39 Crore for procurements of essentials laboratory equipments through HSCC has been sanctioned and 50% of this amount i.e. Rs. 3.195 crore has already been released to HSCC for procurement of equipments. Further requirements of equipments for various laboratories for upgrading their testing facilities are also under consideration of the Government.

For the purpose of strengthening of manpower in the Central Drug Testing Laboratories, a proposal for the creation of 397 additional posts is under consideration in the Ministry of Finance, Department of Expenditure.

For strengthening of State Drug Testing facilities assistance was provided to establish or upgrade testing laboratories in the State to enhance testing facility in the State laboratories under capacity building project through World Bank. States have been further requested to strengthen infrastructure in the State laboratories so as to increase the testing facilities in the country.

3. Common Technical Documents for New Drug

It is proposed to introduce Common Technical Documents for submission of technical information for new chemicals entities by the applicants. Draft guidelines have been placed on the website of CDSCO. Common Technical Documents for submission of information for biological products was earlier introduced in October, 2008.

4. Guidance Documents

Guidance documents for applications for approval of Fixed Dose Combinations have been put on website for the benefit of the applicants in providing necessary technical data along with the applications. A system of preliminary scrutiny at the time of the receipt of the applications has also been introduced to expedite the processing of applications.

14.3 INDIAN PHARMACOPOEIA COMMISSION DRUG AND ALCOHOL DE-ADDICTION PROGRAMME

In order to full-fill its main objectives, the commission has to focus on its priority works with limited resources being the formative years. By accepting these challenges, during the period, the one of the important work to be accomplished was updating of the Indian Pharmacopoeia, the book of standards for drugs by ways of bringing out the 6th edition. This work was completed within the stipulated time schedule. The book was released by

Shri Ghulam Nabi Azad, Union Health & Family Welfare Minister. The book comprises three volumes. The salient features are 287 new monographs are included, 1/3rd of the existing monographs of IP 2007 have been updated, harmonized the monographs on vaccines and sera, special emphasis on herbal drugs monographs, added monographs of commonly used excipients are included, the Appendices and general chapters are updated, special emphasis on Liposomal drugs, 8 new and upgraded existing monographs related to Veterinary products have been added. It is getting overwhelming response from the stakeholders for its scientific content and presentation.



The other mandate of IPC is publication of the National Formulary of India. The process has made substantial progress as the compendium is under printing and could be published during 2010. As the compendium had been last published in 1979, a lot of data had to be collected for compilation of the new publication and the task was accomplished with concerted efforts.

In the matter of infrastructure development also the Commission has made substantial progress. The existing buildings are redesigned and renovated to accommodate the new task of 'Reference Substances' production and supply to the Regulatory Bodies and Industry including private drugs testing laboratories. The Commission has made available reference substances in respect of 51 active pharmaceutical ingredients during 2010 and more are to be added in the coming times.

Scientists have been recruited in place of those who left the organization and in the posts created to take up the task of Reference Substances manufacture.

14. 4 DRUG AND ALCOHOL DE-ADDICTION PROGRAMME

Drug addiction in India has of late emerged as a matter of great concern both concerned both due to the social

and economic burden caused by substance use and due to its establishment linkage with HIV/AIDS. The onus of responding to the problems associated with drug use lies on the central and state governments. The constitution of India under Article 47, enjoins that the state shall endeavor to bring about prohibition of the consumption, except for medical purposes, of intoxication drinks and of drug, which are injurious to health. The activities to reduce the drug use related problems in the country could broadly be divided into two arms supply reduction and demand reduction. The supply reduction activities which aim at reducing the availability of illicit drugs within the country come under the purview of the Ministry of Home Affairs with at the Department of Revenue as the nodal agency and are executed by various enforcement agencies. The demand reduction activities focus upon awareness building, treatment and rehabilitation of drug using patients. These activities are run by agencies under the Ministry of Health and Family Welfare, and the Ministry of Social Justice and Empowerment.

The role of Ministry of Health & Family Welfare in the area of Drug De-addiction is demand reduction by way of providing treatment services. The Drug De-addiction Programme in the Ministry of Health & Family Welfare was started in the year 1987-88 which was later modified in 1992-93. The programme was initiated as a scheme with funding from the central government and implementation through the states. Under the scheme, a one time grant in aid of Rs. 8.00 lakhs was given to states for construction of each Drug De-addiction Centre and a recurring grant of Rs. 2.00 lakhs was given to Drug De-addiction Centres established in North Eastern Regions to meet the expenses on medications and other requirements. At present 122 such Centres have been established across the country including centres in Central Government hospitals and institutions of which 43 Centres have been established in the North Eastern Region. Under this programme, a national nodal centre, the "National Drug Dependence Treatment Centre", has been established under the All India Institute of Medical Sciences (AIIMS), New Delhi which is located in Ghaziabad while two centres i.e. NIMHANS, Bangalore and PGI, Chandigarh have also been upgraded by this Ministry. The purpose of these centres would not only to provide de-addiction and rehabilitation services to the patients but also to conduct research and provide training to medical doctors in the area of drug de-addiction.

14.5 NATIONAL DRUG DEPENDENCE CENTRE, AIIMS

National Drug Dependence Treatment Centre, AIIMS which was established during the year 1987-88 and functioning at Deen Dayal Upadhyay Hospital, Hari Nagar has now shifted in its own building constructed at CGO complex, Kamla Nehru Nagar, Ghaziabad started indoor facilities. Community Clinic of this centre at Trilokpuri has been functioning from August, 2003 and a mobile clinic in an urban slum area of Delhi w.e.f. March, 2007. Apart from rendering patient-care services, the centre, engaged in a number of research projects has an well equipped laboratory for both clinic and pre-clinical research and CME activities.



Education:

Undergraduate and Post graduate medical and nursing students undergo formal training. This includes attendance to Journal discussions, seminars, case conferences and staff presentations held every week apart from clinical training.

14.6 DE-ADDICTION CENTRE, NATIONAL INSTITUTE OF MENTAL HEALTH AND NEURO SCIENCES (NIMHANS), BANGALURU

Activities at the De-addiction Centre

The De-addiction Centre has entered into its 20th year of functioning. In addition to expanded inpatient facilities, the centre has been actively providing in-house post-graduate training in substance use management for postgraduates in psychiatry, psychology, psychiatric social work and psychiatric nursing. Short-term training has been provided for deputed medical officers and social work trainees from several parts of the country. This includes WHO fellows from the Asian region and DMHP trainees. As the regional centre for South India, the DAC has carried out training programmes in substance abuse management for de-addiction centres in South India in

addition to functioning as the nodal centre for monitoring the functioning of these centres. The centre has a thrust on community interventions primarily workplace interventions.

Patient care: The Centre has seen 1514 new patients and 4132 patients have come for follow up during the period from April 2010 to October 2010.

Training: The centre has conducted the following training programmes:

1. One day workshop for medical officers on 26th September 2010 at Bidar
2. Two day workshop for medical officers and lay counselors at South Central Railways, Secunderabad on 24th and 25th September 2010.
3. One month orientation program on Substance Use Disorders in the month of November 2010.
4. Conducted *Workshop on tobacco cessation* for dentists from Indian Dental Association conducted by “National Resource Centre for Tobacco Control”, *Department of Psychiatry, NIMHANS, Bangaluru* at Deaddiction Centre, NIMHANS, during the months of April, August and September 2010.

Toxicology tests:

The toxicology lab has conducted more than 3000 tests for Urine by HPTLC, Urine kits both single and poly kits during the above period.



One month Orientation programme on Substance Use Disorders.



Release of Information Booklet, 'Addiction-What to know & How to get Help'

14. 7 DE-ADDICTION CENTRE, PGI, CHANDIGARH

The Drug De-addiction and Treatment Center was actively involved in various extramural activities during this period. This was aimed at making the general population and, special and high risk groups aware of various types of addictive substances, their harmful effects, myths involved, and various treatments options and accessibility.

- A. Following were the activities and achievements of the center during the period.
1. International Day against Drug Abuse and Illicit Trafficking was celebrated by the Youth Affairs Organization in their 3rd State Level function in the Red Cross Bhawan, Sector-16 Chandigarh. Doctor from the Drug Deaddiction Center gave a talk on medical, psychological, social aspects of drug and alcohol abuse.
 2. The Faculty of the Center participated in the Doordarshan program on the problem of addiction, its prevention and treatment.
 3. Doctors of the center held two interactive programmes with NSS Volunteers of Chandigarh region.
 4. Doctors from the Center participated in three Chandigarh Administration sponsored lectures and interactive sessions with the students of Government and Private Colleges Chandigarh.
 5. The Center also organized 3 interactive programmes with school children and women on various aspects of drug abuse in the Villages of Tehsil Kharar of Distt. Mohali of Punjab.

6. A Centre doctor addressed Punjab Armed Police (PAP) on the various aspects of drug and alcohol related problems.
 7. Center organized three drug deaddiction awareness and treatment camps in the villages of Tehsil Kharar of Distt. Mohali of Punjab.
- B. The center commissioned 500 SQMT expansion for Outpatient services. This expansion included spacious Waiting Halls for patients and their relatives, larger Record Room cum Registration room. 8 rooms for Consultant, Senior Residents, Junior Residents and Medical Social Workers, and toilets for OPD visitors and staff members. *The facility became operational from 21st October 2010.*
- C. The Outpatient facility has incorporated a ramp for the disabled patients.
- D. The center has started well equipped 2-bed isolation facility from the existing beds of inpatient for acutely ill intoxicated patients from 6th December 2010.

14. 8 REGIONAL DE-ADDICTION CENTRE (UNDER DEPARTMENT OF PSYCHIATRY), JAWAHARLAL INSTITUTE OF POSTGRADUATE MEDICAL EDUCATION AND RESEARCH(JIPMER) , PUDUCHERRY

Background

Department of Psychiatry came into existence at JIPMER from 1962. The clinical services provided by the department in the area of substance use disorder was upgraded and designated as a Regional De-addiction Centre in 1991 by Ministry of Health and Family Welfare, Government of India.

This centre has inpatient facilities for the management of substance abuse disorders. Drug De-addiction Clinic is conducted on every Saturday (forenoon) which offers comprehensive psychosocial assessment and management of substance abuse disorders. The services for Tobacco cessation facility are also available in this clinic.

This centre is mainly involved in :

1. Providing clinical care of patients through the hospital, community based out-reach care. Services offered have been daily OPD, in-patient care.

2. Health education-talks on radio and talks in school on substance use disorders delivered by our faculty
3. Manpower development-training of several categories of staff
4. Overall quantification of health damage as all specialities of medicine are available at JIPMER
5. Documentation and creation of data base to facilitate research in this area.

The services and facilities at the Centre include the following:

- **Clinical Service:** (out patients department, In-patient, brief intervention, community care in urban and rural areas through community health camps)
- **Teaching/ training:** (Junior Residents, General Duty Medical Officers from various states, Nursing staff and Anganwadi workers)
- **Laboratory Service:** (Biochemical, haematological tests and screening for HIV/AIDS as a part of assessment of health).
- **Information and Library:** (for substance abuse related health education various pamphlets, videos are available in local languages).

Education:

- A) **Under Graduate**-During their posting in the department of Psychiatry, they are posted for a day in the de-addiction clinic.
- B) **Post Graduate**-Residents doing MD (Psychiatry) are posted for 6 months during their entire course duration.
- C) **Post graduate teaching**
Seminar- Weekly

Journal discussion- Once in two weeks

Case Conference- Once in two weeks

Continuing Medical Education

- Our faculty attends regularly conferences, workshops, seminars, symposium, training courses related to this field
- Training by Trainers programme
- Lectures delivered by faculty for workers in transport services, state of Puducherry and to nursing students from different medical colleges
- International Conferences
- Effectiveness of Yoga in reduction of stress in primary caregivers of patients with alcohol dependence.

Patient Care (Statistics 2010-11)

General Information

1. Total No. of beds	:	07
2. OPD Attendance	:	1715
3. Admission	:	118
4. Discharges	:	100

OPD & Specialty Clinics Attendance	New Cases	Old Cases	Total
General OPD: (Follow –up-cases)	315	1400	1715
Admitted patients	118	-	118
Total:	433	1400	1833

Medical Education, Training & Research

15.1 INTRODUCTION

The Centre has set up regulatory bodies for monitoring the standard of medical education, promoting training the research activities. This is being done with a view to sustain the production of medical and para-medical manpower to meet the requirements of health care delivery system at the Primary, Secondary and Tertiary levels in the country. This chapter discusses the status of these activities conducted by the various bodies and institutions.

15.2 MEDICAL COUNCIL OF INDIA

The Medical Council of India was established as a statutory body under the provisions of the Indian Medical

Council Act, 1933, which was later, replaced by the Indian Medical Council Act, 1956 (102 of 1956). The main functions of the Council are (1) Maintenance of uniform standard of Medical Education at undergraduate and postgraduate level; (2) Maintenance of Indian Medical Register; (3) Reciprocity with foreign countries in the matter of mutual recognition of medical qualifications; (4) Provisional/permanent registration of doctors with recognized medical qualifications, registration of additional qualifications, and issue of good standing certificate for doctors going abroad (5) Continuing Medical Education, etc.

Inspections:

A) Undergraduate:

1)	Inspections for establishment of new medical colleges	=	25
2)	Inspections for renewal of permission	=	50
3)	Compliance Verifications Inspections +Esst. + 11(2) + Surprise Inspections (Esst.(10+25+3+1)	=	39
4)	Inspections for Approval of the colleges	=	02
5)	Inspections for Increase of seats	=	03
6)	Inspections for renewal of permission for increase of seats	=	14
7)	Compliance verification inspections for renewal of Increase of seats+ increase+ 11(2) Surprise (14+ 0+0)	=	14
8)	Inspections for approval of the colleges for increase of seats	=	01
9)	Pre-PG inspection	=	01
10)	Compliance Verification Inspection for Pre-PG	=	00
11)	As per Court Order	=	00
12)	Periodical Inspection + Compliance verification (7+20)	=	27
	Total		176

B) Postgraduate:

- (i) 279 inspections for approval of starting various postgraduate medical courses at Medical Colleges were carried out subsequent to request received u/s 10A of the IMC Act, 1956 through Central Government, Ministry of Health & family Welfare.
- (ii) 288 inspections for recognition (including compliance verification) of postgraduate medical qualification u/s 11(2) of the IMC Act, 1956 were carried out.
- (iii) 223 inspections for increase of seat in various course u/s 10A of the IMC Act, 1956 were carried out.

Registration:

Various types of Registration Certificate issued from 1.04.2010 to 30-11-2010 by this Council during the year under review are as under:

(i) Permanent Registration Certificate	-	1387
(II) Provisional Registration Certificate	-	1222
(III) Additional Qualification Certificate	-	0332
(IV) Good Standing Certificate	-	0804
(V) Eligibility Certificate	-	1054

Continuing Medical Education: During the year 2010-2011, the Council has planned to hold 200-250 CME programmes. Till November, 2010, 200 CME programmes have been approved are likely held at various medical institutions in the country.

Accounts & Establishment: The following outlay has been approved by the Central Government as Grant-in-aid (Plan & Non-Plan) for the year 2010-2011:

	Out lay approved (Rs.)
Plan (including CME)	100 Lakhs
Non –Plan	Nil

A sum of Rs. 67,19,66,154/- has been received by the Council till December, 2010 from other resources. A sum of Rs. 50,00,000/- was received so far under plan Grants-in-aid (plan) till December 2010 from the Central Government.

Policy regarding Establishment of Medical College: As on date November, 2010 there are 314 medical

colleges in the country out of which 237 medical colleges have been recognized under Section 11(2) of the IMC Act, 1956 by Medical Council of India. The remaining 77 colleges have been permitted under section 10A of the IMC Act, 1956 for starting MBBS course.

The provisions of IMC (Amendment) Act, 1993 whereby Section 10A was introduced and came into deemed effect from 27th August, 1992 (initially promulgated as an ordinance). As per the amended Act prior permission of the Central Government is mandatory for opening of a new medical college, increase in admission capacity and starting of new or higher course of studies. The eligibility and qualifying criteria for opening of a new medical college is laid down in Establishment of Medical College Regulations, 1999. The minimum requirement for 50/100/150/200/250 students admission are contained in the minimum standard requirements for the medical college Regulations, 1999.

As per the newly inserted Section 3B (b) (ii) in Indian Medical Council (Amendment) Act, 2010, the Board of Governors shall grant independently permission for establishment of new medical colleges or opening a new or higher course of study or training or increase in admission capacity in any course of study or training referred to in Section 10A without prior permission of Central Government including exercise of power to finally approve or disapprove the same.

At present, there are 314 medical colleges in the country out of which 238 medical colleges have been recognized under Section 11(2) of Indian Medical Council Act, 1956 by Medical Council of India. The remaining 76 medical colleges have been permitted under Section 10(A) of Indian Medical Council Act, 1956 for starting MBBS course. Out of these 314 Medical colleges, 149 medical colleges with annual admission capacity of 17382 students are in Government Sector and 165 medical colleges with annual admission capacity of 19645 students are in Private Sector. The admission capacity both in Government and Private medical colleges is about 37027 students per year. During the academic year 2010-11, 08 new medical colleges in private sector and 06 medical colleges in government sector with admission capacity of 1650 students were granted permission. Out of these, 03 medical colleges were granted permission by the Central Government and rest 11 medical colleges were granted permission by the newly constituted Board of Governors, Medical council of India in view of the Indian Medical Council (Amendment) Act, 2010. The Central

Government/Board of Governors has also granted permission for increase in seats of 175 students in existing medical colleges during the academic year 2010-11. The Post Graduate intake capacity of these colleges is about 18625 students annually.

The Central Government has a Centrally Sponsored Scheme for Strengthening and Up-gradation of State Government Medical Colleges for starting/increasing post graduate seats in existing disciplines with priority given to the disciplines like Anatomy, Forensic Medicine, Obst. & Gynaecology, Paediatrics, Anaesthesiology, General Medicine, General Surgery, Microbiology, Paediatrics, Anaesthesiology, General Medicine, General Surgery, Microbiology, Physiology, Pharmacology, Community Medicine, Geriatric, Transfusion Medicine and Bio-Chemistry. Under this scheme, an amount of Rs. 1350 crores has been earmarked for this purpose. With the implementation of the scheme, approximately 4000 more PG seats would be available.

Till December 2010, 44 State Government Medical Colleges from Bihar, Chandigarh, Himachal Pradesh, Jharkhand, Kerala, Madhya Pradesh, Orissa, Punjab, Rajasthan, Uttarakhand, Uttar Pradesh and West Bengal including 03 medical colleges from Assam have been covered under this scheme.

15.3 DENTAL COUNCIL OF INDIA (DCI)

The Dental Council of India is a statutory body constituted by an Act of Parliament viz. Dentists Act, 1948 (XVI of 1948) with the main objective of regulating the Dental Education, Dental Profession, Dental ethics in the country and recommend to the Govt. of India to accord permission to start a Dental College, start higher course & to increase of seats. For this purpose the Council periodically carries out inspection to ascertain the adequacy of courses and facilities available for the teaching of Dentistry.

The Council had received 348 applications in prescribed form/scheme from the Central Govt. for (i) establishment of new Dental colleges (ii) starting of MDS Courses (iii) increase of seats in BDS/MDS Courses, and (iv) starting of P.G. Diploma Course, for evaluation & recommendations in accordance with the provisions of the Section 10A of the Dentists Act, 1948. During the said period, the Central Govt. on the recommendations of the Council had permitted for 01 new Dental College and increase of admission capacity in BDS course in 01 Dental College, starting of MDS Courses in 114 specialities at 43 Dental Colleges, increase of seats in

MDS Courses in 40 specialities in 14 Dental Colleges and starting of PG Diploma Course in 01 speciality at 01 Dental College.

The Central Govt. on the recommendations of the Council had allowed / renewed its permission for 2nd/3rd/4th/5th/6th year BDS course in 83 Dental Colleges and renewed its permission for increase of seats for 2nd/3rd/4th/5th/6th year BDS Course at 27 Dental Colleges, renewed its permission in MDS Course for 2nd/3rd/4th year at 83 Dental Colleges in 323 specialities and with increased intake capacity at 17 Dental Colleges in 56 specialities and also renewed its permission in PG Diploma Course for 2nd/3rd year at 03 Dental Colleges in 13 specialities. 1012 Inspections of the various Dental Colleges in the country had been carried out by the Council's Inspectors/Visitors during this period. The Council had granted its permission to start Dental Mechanic Courses at 07 Dental Colleges & Dental Hygienist Course at 03 Dental Colleges. The applications for starting of MDS courses / increase of MDS seats / renewal of MDS course for 2011-12 will be finalised in February/March, 2011 after considering the recommendations of DCI.

The Govt. of India on the recommendation of the Council had issued 87 notifications of recognition of BDS/MDS qualifications awarded by the 34 Indian Universities & 02 Foreign Universities under Section 10(2) & 10(4) of the Dentists Act, 1948. The Council had recognized the Dental Mechanic Course at 05 Dental Colleges and Dental Hygienist Course at 04 Dental Colleges. A sum of Rs.19.00 Lakhs has been provided as grant-in-aid to the Council during the year 2010-2011.

15.4 PHARMACY COUNCIL OF INDIA

The Pharmacy Council of India (PCI) is a body constituted under section 3 of the Pharmacy Act, 1948 to regulate the profession and practice of Pharmacy. The objectives of the Council is to be prescribe minimum standards of education required for qualification as a pharmacist, uniform implementation of educational standards, approval of course of study and examination for pharmacists, withdrawal of approval, approval of qualifications granted outside India and maintenance of Central Register of pharmacists.

The Council arranged 775 inspections of diploma and degree institutions and held a number of meetings of the Executive Committee and central council during the last one year as a result of which approval of 80 Diploma & Degree institutions was extended u/s 12 of the Pharmacy

Act; 32 new Diploma & Degree institutions were granted approval u/s 12 of the Pharmacy Act; 16 new Pharm. D. institutions were granted approval for the conduct of course and 5 new Pharm. D. (Post Bacalaureate) institutions were granted approval for the conduct of course.

At present 561 institutions with 33635 admissions for Diploma in Pharmacy and 383 institutions with 22,715 admissions for degree in Pharmacy has been approval by the Pharmacy Council of India.

Continuing Education Programmes (CEP) play an important role in the growth of the knowledge bank of the pharmacist. The PCI from its own resources is giving a financial assistance of Rs. 10,000/- per course subject to ceiling of 12 courses to the State Pharmacy Councils for the conduct of CEP for pharmacists. PCI further decided to give a financial assistance of Rs. 10,000/- to one pharmacy institution per state once in a year for conduct of orientation programme for pharmacy teachers. The Council has taken up the matter with the State Govts./ State Pharmacy Councils for setting up of Drug Information Centres for dissemination of knowledge. The Council is constantly pursuing with the State Governments for appointment of inspectors to ensure implementation of section 42 of the Pharmacy Act, 1948.

A new initiative for strengthening/upgradation of Pharmacy institutions and continuing education programme for pharmacy teachers and practicing pharmacists has been approved by Govt. for Rs. 85.00 crores during the 11th Five year plan.

15.5 DEVELOPMENT OF PARAMEDICAL SERVICES

A Centrally Sponsored Scheme for establishment of one National Institute of Paramedical Sciences (NIPS) at Delhi and eight Regional Institutes of Paramedical Sciences (RIPS) as well as developing the existing RIPANS, Aizawal as the 9th RIPS and manpower development to support State Government Medical Colleges through one time grant has been initiated by M/o H&FW during the 11th Plan period at the cost of Rs. 1156.43 crores to be shared in the ratio 85:15 between Centre and the State Governments.

The Scheme aims to augment the supply of skilled paramedical manpower and promote paramedical training through standardization of such education/courses across the country. This Capacity Building scheme will also lead to:-

- Reduction in regional imbalances in availability of Paramedics
- Introduction of courses in New/Cutting Edge Disciplines
- Augmentation of Capacity for Planning, Monitoring, Evaluation etc.
- Provision of quality assured services through in-service training, action research, onsite support etc.

15.6 INDIAN NURSING COUNCIL (INC)

The Indian Nursing Council is an autonomous body under the Government of India, Ministry of Health and Family Welfare. Indian Nursing Council Act, 1947 enacted by, giving statutory powers to maintain uniform standards and regulation of nursing education all over the Country.

Indian Nursing Council prime responsibility is to set the norms and standards for education, training, research and practice with in the ambit of the relevant legislative framework. First Inspection is conducted to start any nursing program prescribed by Indian Nursing Council. Periodic inspections are conducted as per the requirement of the institution for new programmes as well as enhancement of seats.

A sum of Rupees 3,67,32,530.00 has been received from the training institution as inspection/affiliation fees upto 30th November 2010.

Institutions recognized by Indian Nursing Council

Number of Nursing Institutions recognized upto 30th November 2010 is as follows:

Programme	Total
ANM	944
GNM	2287
B.Sc. (Nursing)	1502
P.B.BSc. (Nursing)	462
M.Sc. (Nursing)	432
Post Basic Diploma Programme	173

Number of Registered Nurses

11,28,116 Nurses, 5,76,810 ANM'S and 52,490 Health Visitors have been registered with various State Nursing Council upto 31st December 2009.

New Initiatives

- i) National consortium for Ph.D. in Nursing : National Consortium for Ph.D. in Nursing has been constituted by Indian Nursing Council to promote research activities, in various fields on Nursing in collaboration with Rajiv Gandhi University of Health Science, supported by WHO. Total 153 students have been enrolled under National consortium of Ph.D. in Nursing.
- ii) Indian Nursing Council has initiated pro active measures to relax certain norms with regard to student patient ratio, student teacher ratio, experience, having constructed building instead of five acre land, allowing sharing of physical and clinical facility to run different programmes.
- iii) Relaxing of Govt. order for opening of Additional Programme in institutions which are running already INC recognized programme.
- iv) Syllabus for different speciality nursing programme one year post basic has been developed for Training of Nurses in various speciality courses.
- v) 14 Speciality courses have been developed.
- vi) Nurse Practitioner programme: The council has developed Nurse Practitioner programme and under implementation in various states.
- vii) Recipient of Global Funding (GFATM) for training of 90,000 Nurses in HIV/AIDS and capacity building of 55 nursing educational institutions in India.

The website of Council is www.indiannursingcouncil.co.in & www.indiannursingcouncil.org is being updated regularly.

15.7 DEVELOPMENT OF NURSING SERVICES

In order to improve the quality of Nursing Services, the following activities are being implemented under the scheme of Development of Nursing Services: -

- (i) Training of Nurses.
- (ii) Strengthening of existing Schools/Colleges of Nursing.
- (iii) Upgradation of Schools of Nursing attached to Medical Colleges into Colleges of Nursing

- (iv) Establishment of College of Nursing at JIPMER, Puducherry.
- (v) Upgradation of Schools of Nursing into Colleges of Nursing attached to Dr. R.M.L. Hospital, S.J. Hospital and Lady Hardinge Medical College, New Delhi.
- (vi) National Florence Nightingale Award for Nursing Personnel.

Training of Nurses:

The pattern of assistance for conducting Continuing Nursing Education Programme on the following areas in order to update the knowledge and skills of the Nursing personnel has been revised from Rs. 75,000/- to 1,65,300/-

Category of Nursing Personnel	Area of continuing Education
Staff Nurses	- Different clinical specialty
Nurse Administrators	- Management Technique
Nursing Educators	- Educational Technology
Duration of training	- 7 days
No. of Participants	- 30 per training programme

A sum of Rs. 1.00 crore has been allocated for the year 2010-11 for conducting 60 courses to train 1800 Nursing personnel.

Strengthening of Schools / Colleges of Nursing: In order to improve the quality of training imparted at the existing Schools and Colleges of Nursing, a sum of Rs.25.00 lakhs as revised pattern of assistance has been approved towards procurement of A.V Aids, improvement of library, additions and alterations of School/College/ Hostel building.

A sum of Rs. 50.00 lakhs have been released during the year 2010-11 for strengthening two institution during the year 2010-11.

Upgradation of Schools of Nursing attached to Medical Colleges into Colleges of Nursing:

A revised one time assistance of Rs. 6.00 crores has been approved for upgrading a School of Nursing into College of Nursing in order to increase the availability of graduate nurses. The funds are released to the Institute subject to the condition that State Government/Institution

will bear the recurring expenditure. The financial assistance is meant for civil works including addition and alteration of school and hostel building and for furniture, audio- visual aids.

20 institutions in the states of Rajasthan (5), Jharkhand (3) Gujarat (2). Tamil Nadu (2), West Bengal (2) Himachal Pradesh (1), Manipur (1) , Mizoram (1),& Uttar Pradesh (3) have been released grant-in aid during the year 2010-11.

Establishment of College of Nursing at JIPMER, Puducherry and Upgradation of Schools of Nursing into Colleges of Nursing attached to Dr. R.M.L. Hospital, S.J. Hospital and Lady Hardinge Medical College, New Delhi:

College of Nursing at JIPMER, Puducherry has been established during 2006-07 and the School of Nursing at Lady Hardinge Medical College, New Delhi has been upgraded into College of Nursing during 2007-08. The School of Nursing at Dr. RML Hospital and Safdarjung Hospital has been upgraded during the year of 2008-09.

National Florence Nightingale Award for Nursing Personnel:

National Awards for Nurses are given as a mark of highest recognition for the meritorious services of the nurses and nursing profession in the country. From 2007 onwards this award has been revived with the consent of Hon,le President of India and named as National Florence Nightingale Award”. 27 nursing personnel had been honored with this prestigious award. Each award carries a Certificate of Merit and Cash Award of Rs. 50,000/- . A sum of Rs. 80.00 lakhs has been earmarked during the year 2010-11.

New scheme of strengthening/upgradation of nursing services under human resource:

I. Opening of ANM /GNM Schools:

A sum of Rs. 250.00 crore have been allocated for the year 2010–11 for implementing the new scheme. CCEA has approved this Ministry’s proposal for opening of 132 ANM Schools and 137 GNM Schools in those districts of the states where there are no such schools. 154 districts in 23 High Focus States have been identified having no ANM and GNM schools. A Sum of Rs. 123.00 crore has been approved so far for release under the new

scheme of opening of ANM /GNM Schools to the states as per details given below :-

Sl.No	Name of the State	No. of Districts for opening ANM Schools	No. of Districts for opening GNM Schools
I.	Arunachal Pradesh	3	2
II.	Bihar	9	5
III.	Haryana	-	1
IV.	J&K	6	5
V.	Manipur	-	6
VI.	Puducherry	2	-
VII.	Orissa	2	1
VIII.	Rajasthan	1	1
IX.	Sikkim	2	-
X.	Uttarakhand	5	4
Total		30	25

II. Faculty Development Scheme:

In order to meet the shortage of qualified Post Graduate teachers in nursing to improve the quality of nursing education in the high focused States, a faculty Development programme has been approved and 22 nominations have been received from 7 States for undergoing training in M.Sc (Nursing) at the identified Institutions wiz. SNTD College of Nursing, Mumbai, PGIMER, Chandigarh and Govt. College of Nursing, SSKM Hospital, Kolkata.

15.8. RAJKUMARI AMRIT KAUR COLLEGE OF NURSING

The Rajkumari Amrit Kaur College of Nursing, New Delhi, a subordinate organization of the Ministry of Health and Family Welfare was established in 1946 with the object of developing and demonstrating model programmes in Nursing Education. The College works in close association with health centres, hospitals, medical centres and allied agencies for teaching undergraduates, post-graduates and also for continuing education of nursing personnel. The college provides advisory and consultative services on nursing education matters to the States, Union Territories and some developing countries.

The admissions & graduations to B.Sc. (Hons) Nursing, Master of Nursing and M.Phil in Nursing are made on the basis of merit in the selection test as laid down by the Academic Council of the University of Delhi.

Total admissions made in July, 2010	=	92
B.Sc. (H) Nursing 1 st year	=	68
Master of Nursing 1 st Semester	=	24
No. of foreign students admitted during 2010-11:		
B.Sc. (H) Nursing	=	02
Master of Nursing	=	Nil
No. of participants in Short term courses:	=	60

Community Services: During B.Sc. (Hons.) Nursing programme the major emphasis was to develop primary health care competencies in the family and community setting by utilizing local resources and achieve community participation. Students actively participated in the national health programmes.

Continuing Education: During the period under review, continuing education courses were conducted for nursing personnel. One national level short-term course on "Quality Assurance in Nursing" was conducted during the year 2010-11.

Rural Field Teaching Centre, Chhawla: The Rural Field Teaching Centre was established in 1950 for the purpose of providing objective oriented Rural Community Health Nursing experience to the students. It covers 7 villages with approximately population of 17000 and is situated 35 Kms. away from the College. The Centre provides an integrated comprehensive health and family welfare services to the community in MCH services, family planning, immunization, nutrition and health education programme.

The Centre also has DOTS and Microscopic Centre for screening and treatment of T.B. Patients. Chief Medical Officer of the R.A.K. College of Nursing is the In-charge of the R.F.T.C. and DOTS Centre. In addition, the Centre provides mobile Van clinic services to seven villages with special emphasis on Primary, secondary and tertiary level. R.F.T.C. is a team movement point for Pulse Polio Programme.

15.9. ALL INDIA ENTRANCE EXAMINATION FOR ADMISSION TO MBBS/BDS COURSES, 2010 CONDUCTED BY CBSE

The All India Pre-Medical/Pre-Dental Entrance Examination was conducted in two stages (Preliminary & Final) by Central Board of Secondary Education (CBSE) on 3.4.2010 and 16.5.2010 for 15% All India Quota seats in Medical/Dental courses all over the country. Total 1,46,230 candidates appeared for Preliminary Examination. On the basis of the result of Preliminary Entrance Examination, 14,218 candidates had been declared qualified for final stage examination. The final result was declared on 23.5.2010 and 2434 candidates were placed in the merit list and 2238 in waiting list. Allotment was made upto rank UR- 3467 in 120 Government Medical and 27 Dental Colleges on 2012 MBBS and 238 BDS courses seats respectively.

Allotment of Colleges and courses to the successful candidates were made as per their rank by Video Conferencing at three centers AIIH&PH, Kolkata, AIIPMR, Mumbai, NIS, Chennai and CHEB Building, New Delhi in two rounds. The whole admission process for 15% All India Quota of MBBS/BDS seats was successfully completed by 11.8.2010.

15.10. ALL INDIA ENTRANCE EXAMINATION FOR ADMISSION TO 50% POST-GRADUATE SEATS-2010 CONDUCTED BY A.I.I.M.S. NEW DELHI.

In compliance with directions of the Hon'ble Supreme Court of India, the All India Institute of Medical Sciences, New Delhi conducted the All India Entrance Examination for admission to 50% All India Quota PG Medical/Dental courses on all India basis.

The Entrance Examination was held at 126 Centers in 15 capital cities in the country on 10.1.2010. A total 62,161 candidates were registered and 56,826 candidates appeared in the examination for admission to MD/MS/ Diploma and MDS courses. The result was declared on 15.2.2010 for enabling the allotment of seats for the merit/wait list candidates in 102 Medical and 24 Dental Colleges all over India. There were 3850 recognized/approved seats in MD/MS/Diploma Courses and 155 approved seats in MDS course under the 50% All India PG Quota for 2010. The allotments were made to the successful candidates by personal appearance from 23.2.2010 to 17.3.2010 (1st round) & 22.4.2010 to 12.5.2010 (2nd round for merit

and wait listed candidates for unallotted seats) and 2.6.2010 to 12.6.2010 (Extended 2nd round). The whole admission process to All India Quota PG/Diploma seats was successfully completed by 12.6.2010.

15.11 ALLOCATION OF MEDICAL/DENTAL SEATS FROM CENTRAL POOL

MBBS and BDS Seats:

A Central Pool of MBBS and BDS is maintained by the Ministry of Health and Family Welfare by seeking voluntary contribution from the various States having medical colleges and certain other Medical Education Institutions. In the academic session 2010-11, 261 MBBS and 28 BDS seats were contributed by the States and medical institutions. These seats were allocated to the beneficiaries of the Central Pool, viz., States/Union Territories, which do not have medical/dental colleges of their own, Ministry of Defence (for the wards of Defence Personnel), Ministry of Home Affairs (for the children of para-military personnel and Civilian Terrorist Victims), Cabinet Secretariat, Ministry of External Affairs (for meeting diplomatic/ bilateral commitments and for the children of Indian staff serving in Indian Mission abroad), Ministry of Human Resource Development (for Tibetan Refugees) and Indian Council for Child Welfare (for National Bravery Award winning children).

MDS Seats:

There are 4 MDS seats in the Central Pool contributed by Government of Uttar Pradesh, which are allotted to the in-service doctors sponsored by the States/Union Territories without MDS teaching facility on a rotational basis. For the academic session 2010-11, in-service doctors sponsored by the States of Uttranchal, Tripura, Nagaland and Manipur were nominated against these seats.

Post Graduate Medical Seats for Foreign Students:

There are 5 P.G. medical seats in the Institute of Medical Sciences, Banaras Hindu University, Varanasi, reserved for foreign students in a calendar year. The foreign students against these seats are nominated by the Ministry of Health & Family Welfare on the advice of Ministry of External Affairs. During the year 2010, these seats were allocated to the candidates from Nepal (1 seat), Maldives (1 seat) and Mauritius (3 seats).

15.12 NATIONAL BOARD OF EXAMINATIONS

The National Board of Examinations established in 1975, functioned as a wing of the National Academy of Medical Sciences upto 1982 Government of India, after a review, took a policy decision to make it an independent autonomous body with effect from March 1, 1982 under the Ministry of Health and Family Welfare.

The Diplomate qualifications awarded by the National Board of Examinations have been equated with postgraduate degree and post-doctoral level qualifications of universities by the Government of India Ministry of Health and Family Welfare. Considering the fact that India has the expertise in various sub-specialty areas with centers having high tech equipment and trained manpower performing exceptional quality work and also keeping in mind the need to increase manpower that can render highest degree of professional work, the National Board is also conducting Fellowship programme in 16 sub-specialties.

The 16th Convocation of National Board of Examination was held on 5th April 2010 at Vigyan Bhawan, Maulana Azad Road, New Delhi to confer the Prestigious “Diplomate of National Board” Degrees to the successful candidates during the session from Dec, 2008 to June 2009. On that occasion Dr. Montek Singh Ahluwalia, Deputy Chairman, Planning Commission, would be the Guest of Honour. Prof. K Srinath Reddy, President of National Board of Examination presided the Ceremony. In the convocation, 1500 candidates were awarded “Diplomate of National Board” Degrees from December 2008 to June 2009 sessions. Approximately 700 candidates in 46 specialties were awarded the degrees in person and 800 candidates were awarded their degrees in absentia. Dr. Montek Singh Ahluwalia awarded Gold Medals to the candidates for their outstanding performance in various broad and super specialties.

Interactive teleconferencing sessions for DNB candidates using facilities of IGNOU are being done every Thursday from 2.30 PM to 7.30 PM at IGNOU. Interactive radio counseling sessions for DNB candidates using facilities of IGNOU are being done every Thursday from 5.00 PM to 6.00 PM at IGNOU.

The NBE conducted 33 CME programmes for DNB candidates and 5 CMEs for consultants during the year under report.

15.13. NATIONAL ACADEMY OF MEDICAL SCIENCES (INDIA)

The National Academy of Medical Sciences (India) established in 1961 is a unique institution which fosters and utilises academic excellence as its resource to meet the medical and social goals. Over the years, the Academy has recognized the outstanding achievements of Indian scientists in the field of medicine and allied sciences and conferred Fellowship and Memberships. Fellows and Members are chosen through a peer review process consisting of screening by the Advisory Panel of Experts and the Credentials Committee, election through voting by the Council and by all the Fellows.

As on 31st October, 2010, the Academy has on its roll, 6 Honorary Fellows, 830 Fellows and 4950 Members (including 1625 MAMS and 3325 MNAMS).

The 50th Annual Meeting of the Academy was held at the Govt. Medical College, Patiala on 29th, 30th and 31st October, 2010. The Governor of Punjab, Shri Shivraj Patil was the Chief Guest. Professor J.S. Bajaj, Emeritus President and Chairman- Academic Committee, NAMS was the Guest of Honour.

Seventy Five candidates were given Scrolls of Fellowship and Membership of the Academy at the ceremonial occasion of the Annual Convocation of the Academy held at Govt. Medical College, Patiala.

The Annual General Body Meeting was held on 30th October, 2010. Ten Orations and Six Awards were awarded to eminent Bio-medical Scientists of the Country for the year 2010-2011.

The Academy has been recognized by the Government of India as Nodal Agency for Continuing Medical Education for medical and allied health professionals. Since 1982, CME programmes are an important activity of the NAMS to keep medical professionals abreast with newer/current medical problems of the country and to update their knowledge for better delivery of medical education, patient care and health care at large.

In this financial year, financial assistance has been provided to various Medical Institutions to conduct seminars/workshops/CMEs on topics of interest and relevance to India.

Emeritus Professors of NAMS: In order to strengthen the intramural CME Programmes, the Academy has appointed 43 eminent Fellows of the Academy for Emeritus Professorship. The Emeritus Professors have been assigned the responsibilities viz. (i) to identify one or more medical colleges where intramural CMEs of NAMS can be organized and where lectures can be given by designated emeritus Professors who will also strengthen the Postgraduate Medical Education through clinical rounds, case discussion or laboratory exercises, (ii) to suggest topics/subjects related to their expertise for intramural CME and would assist in organizing and conducting these with NAMS support, (iii) to undertake travel to any part of the country at least once a year and visit one or two medical institutions to deliver lectures, seminars and also contribute towards academic activities and training of Postgraduates. The Directory of the Emeritus Professors is being updated during the Golden Jubilee Year of the Academy.

Intramural CME Programmes: The CME Programme Committee identifies, from time to time, topics of national and academic relevance for funding as intramural CME Programmes. The Academy provides TA/DA and honorarium to Fellows who attend the CME programmes as Observers. During the year 2010-2011, an intramural CME programme-NAMS-PGI National Symposium on "Acute Coronary Syndromes" is being held at the Postgraduate Institute of Medical Education and Research, Chandigarh.

NAMS has made a major effort to improve the outreach of CME programme by establishing tele-linkages between medical colleges so that more medical colleges can participate and benefit from CME programmes. The NAMS-PGI Centre for Tele-education in the Health Sciences at Chandigarh was established in November 2005. The centre is connected to the medical colleges in Punjab, Haryana and Himachal Pradesh and also to some district hospitals in Punjab and Himachal Pradesh. Encouraged by these successful outcomes, NAMS proposes to intensify such tele-education activities by developing the NAMS JSB Centre for Multi-professional Education and Research at Delhi as the major in-house facility for tele-education.

The Annals of National Academy of Medical Sciences (India), which is published quarterly, is the flagship publication of the NAMS and serves as an important tool for dissemination of recent advances to fellows and

members of the Academy. The NAMS web site <http://nams-india.in> serves as the window to the global medical community and provides information on the major events at NAMS.

A highlight of this year's Annual Conference at Patiala has been the Continuing Medical Education Programme on "Modern Multi-Disciplinary Care for Breast Cancer" and the Scientific Symposium on "High Altitude Medicine".

The CME programme of NAMS (India) also covers Human Resource Development by sending Junior Scientists to Centres of Excellence for providing training in advanced methods and techniques. Twenty two Scientists/Teachers have been selected for advanced training at specialized centres during 2010-2011.

During 2010-2011, the budget provision is ₹ 87.00 lakhs and 42.00 lakhs under Plan and Non-Plan respectively.

15.14. ALL INDIA INSTITUTE OF MEDICAL SCIENCES (AIIMS)

All India Institute of Medical Sciences (AIIMS) was established in 1956 by an Act of Parliament as an institution of national importance.

The institute has been entrusted to develop patterns of teaching in undergraduate and postgraduate medical education in all its branches so as to demonstrate a high standard of medical education to all medical colleges and other allied institutions in India, to bring together at one place educational facilities of the highest order for the training of personnel in all important branches of health activity, and to attain self sufficiency in postgraduate medical education.

For pursuing academic programmes, the AIIMS has been kept outside the purview of the Medical Council of India. The Institute awards its own degrees. The AIIMS continues to be a leader in the field of medical education, research and patient-care in keeping with the mandate of the Parliament.

The Institute is fully funded by the Government of India. However, for research activities, grants are also received from various sources including national and international agencies. While the major part of the hospital services are highly subsidized for the patients coming to the AIIMS hospital, certain categories of patients are charged for treatment/services rendered to them.

15.14.1. Medical Education

Undergraduate Medical Education

This year the Institute has admitted 77 students to its MBBS course. 26 students to B.Sc Nursing (post-certificate) course, 62 students to B.Sc (Hons) in Nursing Course, 15 students to B.Sc. (Hons.) in Ophthalmic Techniques and 09 students to B.Sc (Hons.) in Medical Technology in Radiography.

The MBBS course is spread over 5 ½ years, dividing the period to 1 year for pre-clinical, 1 ½ year for para-clinical, 2 year for clinical and 1 year rotating internship. Para-medical courses like B.Sc (Hons) in Nursing, Ophthalmic Techniques, Medical Technology in Radiography continued to be popular and attracted students from other countries also. The curricula of these courses are under constant scrutiny by the faculty of the Institute for purposes of improvement.

This year AIIMS has admitted OBC seats in undergraduate courses as indicated against each: 19 seats in MBBS, 03 seats in B.Sc (H) Ophthalmic Techniques, 02 seats in B.Sc (H) Radiotherapy, 10 seats in B.Sc (H) Nursing, 06 seats in B.Sc (PC) Nursing.

Post-Graduate Medical Education

A total of 448 students, including 24 state-sponsored and 12 foreign nationals were admitted to the above-mentioned courses during the year under review. The total number of postgraduate and doctoral students on 31 March 2010 was 1134.

A total of 294 postgraduate students MS/MS/MDS/DM/MCh/PhD/MSc/M.Biotech passed out during the year 2009-2010.

The Institute provide full time post-graduate and post-doctoral courses in 57 disciplines. In the year under review, many post-graduate students qualified for various degrees and qualified for various superspeciality degrees. The guiding principle in post-graduate training is to train them as teachers, researchers and above all as competent doctors to manage and treat the patients independently.

Continuing Medical Education

The institute organized a number of workshops, symposia, conferences and training programme in collaboration with various national and international agencies during the year. Professionals from various institutions all over the country

participated in these seminars and workshops and benefited with update knowledge. Guest and Public lectures were organized by visiting experts and faculty of AIIMS.

Training for long term/short term, WHO-in-Country Fellowship and Elective Training to the Foreign Nationals Students:

The institute is also providing short/long term training, WHO-in-Country Fellowship and Elective training to the Foreign Nationals students.

Training for Scheduled Castes (SC) and the Scheduled Tribes (ST) Candidates:

The SC and ST candidates are given due consideration and weightage in accordance with the Govt. of India guidelines in all selections. During this year 36 SC/ST candidates were selected for various undergraduate courses. 11 SC and 6 ST candidates were selected to the MBBS course, 2 SC and 1 ST candidates were admitted to B.Sc (Hons) Ophthalmic Technique, 2 SC and 3 ST candidates admitted to B.Sc Nursing (Post-certificate) course and 7 SC, 4 ST candidates have been selected for B.Sc (Hons) Nursing course.

15.14.2. International Role

The Institute continued to provide consultancy services in several neighbouring countries under bilateral agreements or under the aegies or international agencies. During 2009-2010 the institute trained many WHO-Sponsored candidates to fulfill its international obligations.

15.14.3. Research

As per the mandate given to the All India Institute of Medical Sciences, research forms an important component. AIIMS has been at the forefront of conducting high quality research, both in the fields of basic and applied sciences. During the year under review, the faculty of the AIIMS drew extramural grants for various research projects from national and international agencies.

15.14.4. Patient-Care Services

The hospital has maintained its tradition of services and quality of patient care, in spite of ever increasing number of patients that come to this hospital from all over the country as well as from abroad. A total of 14,40,254 patients attended the general outpatient department and

specialty clinics of the main hospital and other centres of AIIMS. A total of 88,486 patients were admitted during the year in the various clinical units of the Main Hospital and other centers at AIIMS. A total of 82,474 of surgical procedures performed during the year in different surgical disciplines at AIIMS from 01.04.2009 to 31.03.2010

15.14.5. Cardio-Thoracic Centre

The Cardiothoracic Centre at AIIMS continued to be in the forefront in maintaining the tradition of patient care, teaching and research encompassing a wide range of surgical, interventional imaging and laboratory procedures, stem cell therapy and organ retrieval and banking in addition to medical therapy for a wide range of ailments related to disease of the cardiovascular system.

New facilities were added to strengthen patient care including two new surgical operating rooms, one of which is a hybrid operating room which combines surgery and interventional therapy; A 10-bedded neonatal intensive care unit to take care of extremely small babies & a new CT6 ward. A new outpatient clinic (Aortic Clinic) has been started on Wednesday and Thursday morning to cater to patients suffering from diseases of the aorta under one roof. The faculty of the cardiothoracic center was actively involved in delivering lectures at national and international meetings and projecting AIIMS as a leader in this field. In addition several conferences were organized by the various departments of the center and many observers and specialists were imparted training. Important areas of continuing research include stem cell research, applications of advanced cardiovascular CT and MRI genetic polymorphism studies in coronary artery disease patients, nuclear cardiology studies related to stem cell labeling cardiac dyschrony evaluation, assessment of myocardial viability and various projects funded by ICMR. In addition to this, community health and stress management programs are being actively promoted.

The stem cells facility at AIIMS has initiated clinical research in degenerative disorders like heart muscle cells regeneration, ocular surface reconstruction, peripheral vascular disease, stroke, myocardial infarction, dilated cardiomyopathy, non union of fracture, extrahepatic biliary atresia & spina bifida. The Organ Retrieval & Banking Organization (ORBO) has been instrumental in procuring organs and tissues for transplantation & in spreading the knowledge of importance of donating organs.

15.14.6. Dr. Rajendra Prasad Centre For Ophthalmic Sciences

Dr. Rajendra Prasad Centre for Ophthalmic Sciences for now more than 43 years is the oldest Centre at the AIIMS functioning on the tenets and guidelines issued from the MHFW and the GB/IB, on which norms all the subsequent superspeciality Centres here at AIIMS have been developed. The Centre carries about 25% of the total AIIMS patient care load. Dr. R.P. Centre is the first major continuously reaccredited WHO Collaborating Centre for Prevention of Blindness (PBL) in the South East Asian SEARO region since 1973. The Centre continues to be the initial member of INTERSUN (WHO's International Sun Monitoring Project) – efforts are under way to set up the UV monitoring units with Project ISUVRA (Indian Solar Ultra-Violet Radiation Assessment). The Chief of the Centre is the Director of this WHO Collaborating Centre for PBL, & also continues to be the Honorary Advisor Ophthalmology to the Ministry of Health & Family Welfare, Govt. of India, the RPC remaining the Apex Centre under the NPCB, GOI.

The Faculty of this premier Eye Centre have been honoured by several international and national awards and published numerous scientific works in international and national peer reviewed journals and, even residents and research associates have presented their research works in various international conferences, authored books and delivered lectures besides attending scientific meetings and providing specialized training and filing patents. Many such research projects in various fundamental aspects are ongoing at the Eye Centre.

Efforts are under way to secure an upgraded and integrated 4-year programme for Bachelor of Optometry and Visual Sciences at RPC along with a 1-year internship, and also Fellowships for both this Course as well as in the specialities of Clinical Ophthalmology, etc. Over 110 junior and senior residents at any one time, constitutes the world's largest ophthalmology residency training programme.

Dr. R.P. Centre has 15 clinical and paraclinical departments with numerous state-of-the-art Investigative and Clinical Service labs. During this period, 113712 patients in OPD and 91165 in our Speciality Clinics were attended to [total 224375], 17512 indoor patients admitted, 13564 operations performed, and more than 200,000 laboratory and other investigations were carried out. The Centre also provides round-the-clock Eye Casualty

services, with 19498 more patients registered in Eye Casualty alone during this period. Our workload continues to escalate. The Centre is providing eye care services to urban slum populations, including eye OPDs, provision of subsidized spectacles, free surgeries and investigations. Cataract surgery is being provided totally free of cost to patients identified and brought in from the rural areas.

At the Centre several specialized procedures in ophthalmoplasty, corneal and refractive areas are being carried out, along with newer vitreoretinal and macular procedures including intravitreal drugs especially for ARMD and DR, and newer investigations and techniques in glaucoma, squint, and neuro-ophthalmic disorders being undertaken with gratifying results.

For further upgradation of patient care services, newer facilities have been initiated in Ocular Biochemistry, Ocular Microbiology, Ocular Pathology, and Ocular Pharmacology. A DNA chip for diagnosis of eye infections has been developed and commercially launched by the Industrial partner of the recently concluded CSIR (NMTLI) multicentric project. Newly established Stem cell/ Tissue and Cell culture facility, PCR and Molecular Biology laboratories are fully functional. The advanced bioanalytical system with LC-MS/MS has completed installation at RPC.

Community Ophthalmology services and projects continue to form a major part of the activities of RPC along with NPCB (National Programme for Control of Blindness) and WHO. Inculcating awareness of disease among the public has been given a suitable fillip with the recent ADR monitoring, Glaucoma Awareness, and Drug Monitoring programmes. Dr. R.P. Centre has extended its exemplary and unique Eye Centre services spread far afield, and continuing as in the North Eastern state of Meghalaya, with several speciality eye camps under the NRHM, and also closer to home as in the state of Uttarakhand.

The Centre organized several conferences/ workshops/ symposia during this period including live surgeries in Ophthalmic superspecialities. The XXVth National Eye Donation Fortnight was held from 25 Aug – 08th Sep 2010 where Awareness Drive for Eye Donation was launched and charts and pamphlets distributed. Dr. R.P. Centre is in constant collaboration with ORBIS International and major INGOs especially with regard to childhood blindness activities, and the National Forum of Vision 2020: The Right to Sight-India. The Chief RPC continues as the active Vice President of Vision 2020: India.

- CCTV in the OTs has been improved to long distance transmissions in the city – Telemedicine is being augmented for better patient care, teaching and research.
- A newer Digital TV system with direct transmission has been initiated at RPC Private Wards etc. for the first time at AIIMS.

The Centre has taken significant steps in improving the quality of services delivered to all patients (including Daycare services), despite several constraints. All our Investigative and Clinical Service Labs are being constantly upgraded as far as practicable.

Various expansion plans for RPC are also under way, especially under the XI Five Year Plan. This is a nodal referral Centre for Tribunals, Commissions, all Courts, Consumer forum, etc. not to mention innumerable legal notices and RTI, which have all increased our multifarious workload tremendously.

15.14.7. Dr. BRA Institute Rotary Cancer Hospital

Expansion project of Dr. BRA Institute Rotary Cancer Hospital has been completed, and the floor are functional.

15.14.8. National Drug Dependence Treatment Centre

Besides the Professor and Chief, currently the Centre has 3 Professors, 2 Associate Professors and 1 Assistant Professor.

During this period (2009-10), a total of 34570 (new and old) patients in the OPD, 20401 (old & new) in the Trilokpuri Community clinic, 8692 in Sundar Nagari mobile clinic, 72 patients in the Adolescent Drug Abuse clinic, and 791 patients in the Tobacco Use Cessation clinic and 251 patients in the Dual Diagnosis clinic were seen. A total of 957 patients were admitted in the ward.

During this period, the following laboratory investigations were carried out: Drugs of abuse screened (20733), various biochemical tests to assess health damage (19739), haematology (5109), and HIV screening (340).

Last 2 years (2008-09) activities supported by the Ministry and WHO-I supported were:

- Workshop: Revisiting the Current Situation and Planning Ahead
- Workshop: Curriculum Development on Agonist Maintenance

- Two Training Programmes on Agonist Maintenance
- Development of Minimum Standards of Care
- Managing of Alcohol and Drug Dependence in Primary Care Settings
- Assessment of substance use among out of school children
- Peer based Intervention in out of school children
- District based monitoring system
- Training by Trainers (TBT) Programme
- Drug Abuse Monitoring System-data on new treatment seekers in Govt. De-addiction Centres
- Collaboration with NACO and UNODC on starting OST and evaluation of Centres providing OST and their accreditation.
- Control of alcohol abuse and development of Policy, carried out with support from WHO-SEARO, WHO-HQ, Indo-Swedish collaboration and of course India's /Ministry's contribution towards development of Global Strategy to Reduce Harmful Use of Alcohol (WHO-HQ activity).

The current (2010-11) ongoing projects being supported by WHO-I are:

- Convergence of services with special emphasis on management of substance among adolescents
- Addressing alcohol use in diverse settings including E-health
- Developing a network of De-addiction services between the government, NGO and private sectors.

The Chief of the Centre was nominated by the WHO as member of the International Narcotics Control Board (INCB), 2010-2015 and also appointed as Head and Member of the Expert Group to finalise National Policy on Prevention of Alcoholism and Substance Abuse and Rehabilitation, Ministry of Social Justice & Empowerment, Govt. of India, January 2010.

In this period seven research projects on 'Substance Use Disorder' are ongoing which is being funded by national and International agencies. Besides these, five funded research projects have been completed. The faculty published twelve research articles in indexed national and

international journals and seven chapters in books\manuals Reports\Proceedings\Manuals\monographs.

Some faculty also received national as well as international awards in recognition. The faculty of the centre acted as a resource person in national and international meetings as well as in various training programmes held in Delhi as well as in various states of the country.

The faculty of the department of Psychiatry and the centre jointly carry out post-graduate teaching that includes journal discussion, seminar, and case conference and research/academic presentations once every week.

15.14.9. Department Of Neurology

The new imitates four the department of neurology is use of stem cells in Parkinson's disease, subacute stroke and chronic ischemic cerebral damage. Pilot project in this area has been completed or going on a multi centre study is on going in patient with subacute stroke.

15.14.10. Centre for Community Medicine

The Centre for Community Medicine carries out teaching training and research activities keeping in view the mandate of AIIMS. There are 20 post graduates and 2 PhD students. Currently, 11 research projects are underway through intra mural and extramural funding, and 26 papers were published.

Rural Programme: The Comprehensive Rural Health Services Project, Ballabgarh Haryana which is the rural programme of the Centre provides secondary and primary level care through a 50 bedded hospital and 2 PHCs. About 138,894 patients are seen in various outpatient clinics in CRHSP Ballabgarh annually.

Urban Health Programme: The UHP is located at Dakshinpuri Extension [Dr. Ambedkar Nagar] in South Delhi and apart from providing health care to the inhabitants, acts as a training & teaching centre for MBBS, MD, Nursing and other students. A mobile health clinic provides primary care daily, and about 23,712 patients are seen annually.

The telephone helpline on HIV/AIDS, Sex related issues and contraception ("Shubhchintak") and Internet based helpline "E-shubhchintak" continued to be operated with usual popularity, attracting a good number of calls and mails daily.

Contribution to various National programmes:

- National Iodine Deficiency Disorders Control Programme;
- National Rural Health Mission;
- National AIDS Control Organization (NACO) for HIV sentinel surveillance Uttar Pradesh, Uttarakhand, Bihar, Jharkhand, and Delhi;
- National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke;
- National Urban Health Mission and
- Revision of the Indian Public Health Standards (IPHS).

New Initiatives:

- Started an innovative program "Pre-Marriage Orientation & Counseling for Happy Married Life". Seven courses have been conducted so far with great success.
- Started a series of regular, monthly lecture discussions on health topics for general public "HELPS" (Health Education Lecture-discussions for Public) at AIIMS for important public health problems like Diabetes, Swine Flu etc.
- Setting up of delivery huts in the Primary Health Centres as recommended under the National Rural Health Mission where about 350 deliveries were conducted last year.

15.14.11. Department Of Nephrology

Department of nephrology is providing integrated best care for nephrology patients in a government set-up in the country. Department has done 80 renal transplants during this period including cadaver transplants. Increasing chronic ambulatory peritoneal dialysis and hemodialysis facilities are being provided at cheapest cost. Department is providing bed side facility of hemodialysis to large number of departments within the institute inspite of limitation of staff. Nationally and internationally recognized work is being done on tuberculosis and hepatitis patients with kidney disease. Department is the only centre contributing to world largest transplant registry; Collaborative Transplant Study, Germany. Department faculty is awarded grant by the World Health Organization, International Society of Nephrology and Japanese Society of Dialysis Therapy. Faculty is regularly

invited for Guest Lectures at various meetings. Department has ten publication during this period. Dr. SK Agarwal, professor and head has been appointed chairman of nephrology specialty by MCI and National Board of Nephrology. Dr SK Agarwal is organizing secretary of 6th World Organ Donation Day being observed at Vigyan Bhawan under Ministry of Health and Family Welfare on 27th Nov 2010. Dr Agarwal is also coordinator for a multicentric study to find out prevalence of CKD being funded by ICMR. Faculty had regularly conducted patient education program in print and electronic media particularly in U.P. Sahara Samay on series of education program on chronic kidney disease for lay public. Department also had visiting faculty from USA and Australia during this period.

15.14.12. Department Of Urology

The Department of Urology is equipped with the state-of-art devices and provides a wide range of services, specializing in minimally access techniques, microsurgery, robotics and oncology. It organized a Mock Examination for post graduate trainees (M Ch and DNB) in Urology for the Urological Society of India in March 2010. 80 PG students of urology attended this three day program and over 15 faculty members from all over the country conducted exams in the standard pattern. A live operative demonstration was also given on common urological procedures. The department of Urology, AIIMS jointly organized an "International Uro-oncology Workshop" with Rajiv Gandhi Cancer Institute & Research Centre and RML Hospital PGIMER, New Delhi on October 1-3, 2010. During this Workshop a wide variety of surgical procedures (open, laparoscopic and robotic) were demonstrated by International and national faculty. The faculty of the department delivered numerous lectures and live operative demonstrations at various meetings nationally and abroad. It continues to conduct research in basic and clinical aspects of Urology in collaboration with various departments in the Institute with both intramural and extramural funding. The department published over 40 articles in peer reviewed journals over the last one year and the faculty received a number of awards and honors. Over 7500 surgical procedures including 130 robotic surgeries were performed during the last year.

Major achievement and success of the department has been 'computerisation of discharge summaries and other related data'. The Department of Urology has taken new initiatives in the field of Advanced Robotic Surgery and

has done a pioneering work in establishing Pre Peritoneal approach for doing Radical Prostatectomy with the robot for the first time in the country besides other advanced procedures.

15.14.13. Department of Orthopaedics

"The Department of Orthopaedics at AIIMS continues to be the best in the country and occupies an eminent position in the field of Orthopaedics in the country. Newer and highly complex surgeries in the field of trauma, tumor, hand, spine, joint replacement, arthroscopic surgery and paediatric orthopaedics are done on a regular basis. The Department has facility for comprehensive physiotherapy and rehabilitation of the patients. We also have facility for Bone banking including cadaver bone banking. A number of research projects funded by ICMR, DST, DBT and CSIR are being carried out in the Department. The Department continues to publish articles in indexed journals of repute. The faculty members have actively contributed in many CMEs at national and international levels. The Department has also served the country at various health camps at far-flung remote areas. The department continues to enjoy the trust and faith of millions of countrymen and is the best testimony to its character".

15.14.14. Department of Forensic Medicine & Toxicology

Routine Work:- The Department of Forensic Medicine & Toxicology continued to provide medicolegal services to the South Zone and South East Zone of Delhi along with round the clock coverage to the casualty. Department also provided consultation in complicated medicolegal cases to the CBI, NHRC, Crime Branch, Delhi Police and other investigating agencies.

Forensic Pathology:- Total 1775 postmortems were performed during this period including at trauma centre. Department also participated in exhumation as ordered by competent authorities and guided the investigating agencies to arrive at logical conclusion.

Casualty Services: About 500 calls were attended from casualty pertaining to cases of various natures. Department is also looking after medicolegal records of casualty.

Clinical Forensic Medicine:- Clinical Forensic Medicine services were provided by the Department in cases of injury, age estimation, paternity dispute etc. 20 such cases were dealt during this period.

Expert Opinion: Department gave expert opinion in various cases referred by Honorable Courts, CBI and other investigating agencies.

Court Summons: 380 summons were received by the Department to appear as an expert from various courts of law in Delhi and other states.

DNA-Finger Printing: Department is running DNA-Fingerprinting Laboratory where training is provided to short term trainees referred from all over India. This laboratory of the Department performs tests for medicolegal cases referred by Delhi Police, SDM of neighboring States, CBI and Honourable Courts of India.

Toxicology Laboratory: The Department provides only hospital services for toxicology analysis or cases referred by courts. Tests were done for various poisons and heavy metals in this laboratory.

CME:- Departmental faculty and officers participated in various CME programmes. Lectures were delivered to the officers of CBI, Forensic Scientist, Judicial officers and medical officers. CME Programmes organized by the Department include Workshop on Crime Scene Investigation, DNA-Finger printing and International conference- INPALMS-2010 in collaboration with PGIMER, Chandigarh and Amity University, Noida (UP)

Research Publications: 08 research papers have been published in various scientific journals during this period.

15.14.15. Department Of Biochemistry

- The Department has innovative teaching programs involving problem based learning and case oriented small group discussions for MBBS students.
- The Department has provided short-term research training to many post-graduate students.
- Provided research exposure to undergraduate students, leading to some of them being successful in obtaining KVPY fellowship of DST.
- Research grants/ funding amounting to Rs.3.57 crores obtained from DBT, DST, CSIR, DRDO, ICMR and Indo-US, Indo-Canadian collaborations.
- There are forty ongoing research projects with departmental faculty.
- Forty seven publications in indexed National and International Journals.

- Patient care laboratory of the department is providing clinical service for a number of tumor markers, free of cost.
- Have applied for two patents.
- Prof. N. Singh conferred fellowship of National Academy of Medical Sciences.

15.14.16. Department Of Cardiac Radiology

During this year, the Department of cardiac radiology continued to be at the forefront of providing advanced cardiovascular imaging and vascular interventional services to the the Cardiothoracic center as well as other allied Departments within the AIIMS. These include cardiovascular CT and MRI, vascular Doppler and fluoroscopic procedures as well as percutaneous techniques for vascular recanalization, reconstruction and occlusion of diseased vessels for all organ systems. Among educational activities, the Department organized the Annual Registry meet cum CME of Indian Society of Vascular and Interventional Radiology on 17-18th April, 2010. The Departmental faculty was also involved in delivering lectures, presenting papers and participating in workshops dealing with this subspecialty at various national and international forums. Besides, the faculty members are also reviewers for many reputed cardiology/radiology journals. On the research front, the department completed participation in 8 research projects, and initiated/contributed to starting 4 others, dealing with various diagnostic and interventional aspects of cardiovascular diseases. At the forefront are projects dealing with stem cell research and applications of advanced cardiovascular CT and MRI. There were 6 research papers and one book chapter that were published with the involvement of this Department.

15.14.17. Department Of Cardiology

In the current year, the Department of Cardiology has catered to over 1,00,000 outpatients. Over 20,000 patients had undergone echocardiography, and over 4000 cardiac catheterizations were performed. Overall around 1000 patients had undergone interventional procedures including coronary angioplasty, balloon valvuloplasty and device implantations.

Department of cardiology has been renovating its existing facilities to cope with its ever increasing demands. The Echo, Holter, and TMT have been renovated and started functioning with added capacity. A new state-of the art

Department is actively involved in many intramural and extramural research projects. Newer projects including stem cell research in dilated cardiomyopathy and ischemic heart disease are underway. Efforts have been made to refocus the educational activities of the Department to address the changing needs of current cardiology practice. The Department has organized a successful CME and 'Professor Philip Poole Wilson Heart Failure Research Symposium' in collaboration with Imperial College/Royal Brompton Hospital London.

The Faculty of our department has authored 60 papers in indexed medical journals and some prestigious books. They have participated and contributed in various national and International conferences/committees.

15.14.18. Department Of Physiology

The Department provided about 400 hours of teaching to the first year MBBS students and about 60 hours of teaching to students of B.Sc. Nursing and allied courses, besides conducting M.Sc. (Physiology) and MD (Physiology) courses and guiding Ph.D. students.

15.14.19. Department Of Biostatistics

The Department was actively involved in teaching "Biostatistics and Essentials of Research Methods" for the undergraduate, paramedical and postgraduate courses, viz. MBBS, BSc (Hons) in Medical Technology in Radiology, M. Biotech, B.Sc. & M.Sc. Nursing and MD Community Medicine. The Department organised a series of fourteen evening classes on "Essentials of Biostatistical Methods and Research Methodology" for the new residents, Ph.D. students and other researchers in the Institute. On request, for statistical methods in specific areas of medical research, Departmental faculty members delivered series of lectures for the residents, Ph.D. students and faculty members in several departments in the Institute. Also, departmental faculty and scientists delivered invited talks outside the institute throughout the country. On request, the faculty and scientists also participated in departmental scientific presentations in most of the departments in the Institute. Besides guiding Ph.D. students in the department, faculty members contributed to the academic activities of other departments in the Institute as Co-Guides and DC Members of Ph.D. students. Both faculty members and Scientists contributed to the academic activities of most of the departments as co-guides for MD/MS, DM, MCH students.

15.14.20. Department Of Gastroenterology And Human Nutrition

Established a New Molecular Biology Laboratory In The Department With State Of Art Facility.

Continuing Medical Education

1. The department organized an "International Workshop on Micronutrients and Child Health" held on October 20-23, 2009 at AIIMS, New Delhi.
2. The department organized a "National Consensus Workshop on Management of SAM Children through Medical Nutrition Therapy on November 26-27, 2009.
3. The department organized Current perspective in Liver Diseases (Oct 14-15, 2010)

Lectures delivered in CMEs, national and international conferences: All faculty members of the department delivered 42 lectures at the international and national meetings.

15.14.21. Department Of Pathology

During the period of 01.04.2010 to 30.11.2010 the Faculty of the Department has published 64 publications in reputed national and international journals.

Laboratory Services:

Surgical Pathology Laboratory:

No. of specimens processed 28,588

Cytopathology Laboratory:

No. of specimens processed 15,449

Immunohistochemistry Laboratory:

No. of cases processed 4,357

15.14.22. Department Of Cardiac-Anaesthesia

Faculty & Residents of the Department of Cardiac-Anaesthesia are involved in providing Anaesthesia care in 7 operation theater, 5 catheterization labs, CT angiography and MRI Cardiac-Anaesthesia Department is also involved in resuscitation & ventilatory care in CTVS-ICU-A & B, ICCU, all the general wards and C.N.Tower.

9-DM-Candidates including two sponsored LT.Col. from Army and 8 other post MD-Senior resident doctor are undergoing superspeciality training in Cardiac-Thoracic-

Anaesthesia. Dr. Mulidharan from Shree Chitra Institute of Medical Sciences, Triventhapuram & 3 M.D. Candidates from Lady Hardinge Medical College were imparted short term training in the specialty of Cardiac-Anaesthesia.

Research: - The Departmental faculty is involved in 5 extramural 3 AIIMS funded research projects as chief investigator/co-investigators. The Departmental faculty is involved in 06 non-funded (Departmental) research projects as chief investigator/co-investigators.

Scientific Presentation

Faculty of the Department delivered twenty-nine lectures in different national & International forums and Resident doctors & DM students presented- Six papers in national conferences, topics:-

Thalasamia & heart surgery, Chest trauma, aortic injury management, PDA ligation in 900gm child. Percardectomy management in 3mths old child. Post stent inschaenic TAPVC stent blocked.

New Initiatives Taken & Community Programme

- 1). Department is running stress management clinic for cardiac and neuro patient in CT5 meditation room.
- 2). Research initiated on sonoclot and pharmacological preconditioning youth.
- 3). Nine Community health programme, stress management and health awareness for children are conducted as part of the project My India, healthy India at GT Karnal Road, Industrial Area. Invited by Nepal, govt. for participation in "Healthy Nepal" a mega project.
- 4). Quit tobacco awareness programme for Rural area of Panipat.
- 5). Mind body intervention for heart patients and their attendants.

15.14.23. Department of Physical Medicine and Rehabilitation

The Department of Physical Medicine and Rehabilitation was actively involved in providing medical cover for Commonwealth Games 2010 held at Delhi

Dr. U Singh, Professor and Head was Nodal Officer Incharge from AIIMS. AIIMS provided medical cover

for the athletes, the teams and the VIPs at the medical centre located at the Jawaharlal Nehru Stadium and Thyagraj Stadium.

Dr. Sanjay Wadhwa, Additional Professor, Department of Physical Medicine and Rehabilitation received the following awards during this period.

1. Distinguished Services Award by the Geriatric Society of India, New Delhi

Dr. S.L. Yadav, Associate Professor of the Department was deputed as acting Venue Medical Officer for JLN Stadium

Dr. Gita Handa, Associate Professor of the Department was awarded Stanford India Biodesign fellowship (Pioneering initiative by Department of Biotechnology, Govt. of India in collaboration with IIT Delhi and AIIMS to promote Medtech Innovation) and worked as visiting Associate Professor at Stanford University for 6 months from January to June 2010.

15.14.24. Department of Dermatology And Venereology

Department Achievements

1. National CME Dermatology AIIMS, 2010 was organized on April 10-11, 2010.
2. Renovation of D-1 ward was undertaken.
3. Procurement of lasers (Pulsed dye laser, Diode Laser, Q-Switched Nd-YAG laser) was done. Laser OT was set up providing free laser services to the patients.

Faculty Achievements

Dr. M. Ramam elected as President, Indian Association of Dermatologists, Venereologists and Leprologists, Delhi State Branch, 2010.

Dr. Sujay Khandpur award as ICMR International Fellowship for Biomedical Scientists 2010-2011.

15.14.25. Department of Paediatrics

1. A life saving drug for newborn babies, namely, pulmonary surfactant derived from goat lungs developed by the Department of Paediatrics has been licensed for clinical use.
2. The Department continues to provide technical support on child health in areas of IMNCI, ASHA

training, Neonatal resuscitation, Pediatric HIV and tuberculosis.

3. Department developed package for training of neonatal nurses working at district and sub-district hospitals.
4. The Department conducted telemedicine training with medical colleges at newborn health. It also established sub-speciality training knowledge exchange using telemedicine with the Department of Pediatrics at PGIMER, Chandigarh.

15.15 JAWAHARLAL INSTITUTE OF POST GRADUATE MEDICAL EDUCATION AND RESEARCH (JIPMER)

Jawaharlal Institute of Post Graduate Medical Education and Research (JIPMER), was declared an Institution of National Importance on 14.7.2008 through an Act of Parliament. The primary functions of this Institute are patient care, teaching, training and research. During the year under review, the Institute has made all round progress in all its activities.

JIPMER Hospital has total bed strength of 1591. The daily average number of outpatients treated in the year 2009-2010 was 4,760. Under the Rashtriya Arogya Nidhi (RAN) 22 patients were benefited and Rs. 10,59,277/- was utilized during the year. Rs.10 Lakhs was allotted under special Rastriya Arogya Nidhi for the treatment of cancer patients. 09 patients were benefited by this scheme and one patient is under treatment. In the year 2009-2010, a total of 14, 04,389 outpatients were treated in JIPMER Hospital. In the year 2009-2010, a total of 64,331 admissions were made in the Hospital. A total of 19,48,543 investigations were carried out in the year 2009-2010. Total number of deliveries conducted was 16,363. Total numbers of operations performed were 35,195. The total attendances in Emergency Medical Service (Main Casualty) were 1,17,517 and the total attendance in OG (Obstetrics & Gynaecology) Casualty was 18,267. JIPMER caters to people from the states of Puducherry, Tamil Nadu, Andhra Pradesh, Karnataka and Kerala and other States.

New Services Started:

- An Acute Stroke and Neuro Intensive Care Unit has been set up in the Neurology department. Neuro Surgery department has started doing Stereotactic biopsy for deep seated brain lesions.

- World Bank supported 'Regional Influenza Laboratory' for the surveillance of human, avian and swine Influenza has been set up in Microbiology department.
- Orthopaedics Department has started doing Total Knee Replacement.
- Clinical Immunology has been made an independent division and diagnostic and therapeutic services are being offered by this division.
- Yoga therapy OPD has been started and generalized yoga therapy consultation is provided for diabetes mellitus, hypertension, respiratory disorders, and for other chronic ailments thereby providing holistic health care.
- Crisis Intervention Clinic has been started in the Psychiatry Department to cater to the needs of cases of attempted suicide.

Academic Activities:

The admission to first year MBBS course in JIPMER is through All India Entrance Examination. A total of 22,674 applications were received and 17,389 candidates appeared in the Entrance Examination for the first year MBBS Course, 2009-2010 session. Out of the 11,966 candidates who qualified in the Entrance Examination, 82 candidates were admitted based on their category merit rank. Eighteen candidates were nominated for the Academic Session 2009-2010 by the Government of India. College of Nursing was started by JIPMER during the year 2006 with an annual intake of 75 students. Admissions were made to the B.Sc (Nursing) course based on an Entrance Examination for 2009-10 session. Post graduate courses (M.D /M.S) are conducted in 21 disciplines. A total of 88 seats are available for the 21 postgraduate courses. Thirty-four new PG seats will be added from the academic session 2011-12. At present, Super Specialty Programmes (D.M./M.Ch) are conducted in 7 disciplines. A total of 10 seats are available in these 7 Super Specialty Programmes.

PhD programmes are conducted in 8 disciplines and a total of 18 seats are available for these 8 PhD programmes. JIPMER has been conducting M.Sc (Medical Biochemistry) course for the last 32 years. For the academic year 2009-2010, nine students were admitted on the basis of the entrance examination to this 3 years course.

New Courses:

The Central Government has accorded its approval to the starting of the following courses from the academic year 2010-11: B.Sc (Dialysis Technology), B.Sc (Perfusion Technology), B.Sc (Medical Radiation Technology), B.Sc (Operation Theatre Technology) and M.Sc (Medical Lab Technology-Microbiology). Besides, several new courses such as D.M.in Clinical Pharmacology, Clinical Immunology, Neurology, Neonatology, MD Radiotherapy and post doctoral fellowship in Diabetology have been started.

First Convocation:

Besides awarding its own degrees, the Institute is now empowered to start various new courses and develop its own curriculum. The first Convocation of JIPMER as an Institute of National Importance was held under the Chancellorship of Prof. N.K. Ganguly, the president of the Institute on 22nd March 2010 in which Shri. Ghulam Nabi Azad, Hon'ble Union Minister of Health and Family Welfare was the Chief Guest and Shri V. Narayanasamy, Hon'ble Union Minister of State for Planning, Parliamentary Affairs and Culture was the Guest of Honour. A total of 154 degrees were awarded to the MBBS, PG (MD/MS), B.Sc. (MLT) and Super Specialty students who had successfully completed the course.

Faculty Recruitment:

The Institute on becoming an autonomous body conducted the interviews and selected about 100 Assistant Professors in various disciplines and almost all of them have joined.

Projects:

Department of Radiotherapy got the status of Regional Cancer Centre in the year 2002. A new building has been constructed with bed strength of 82. Medical Oncology, Radiation Oncology and Cancer Registry, Day Care Centre have been commissioned along with the Super specialty Block & Trauma Care Centre. A 360 bedded Super Specialty Block housing all the super specialty departments under one roof has been constructed at a cost of Rs.93.04 crores. A Trauma Care Centre has been constructed over the existing Emergency Medical Services Department at a cost of Rs.13 crores. This centre has state-of-the-art equipments such as Multi Slice CT Scanners, high profile Operating Tables, Micro-Vascular Instruments etc. and 2 high tech Ambulances.

Medical Oncology, Surgical Oncology, Medical Gastroenterology, Surgical Gastroenterology, Nephrology, Neuro Surgery and Endocrinology Departments have started functioning in the new super specialty block. Efforts are being made to start post doctoral training programmes in all these Departments.

Action has also been initiated for second phase of development which includes construction of a 400 bedded Women and Children hospital, a Teaching Block, Hostel Complex and upgradation of all the departments.

The total budget provision as per BE 2010-11 is Rs.252 crores (Plan – Rs.132.00 crore & Non-Plan – Rs.120.00 crore).

15.16. POST GRADUATE INSTITUTE OF MEDICAL EDUCATION AND RESEARCH (PGIMER), CHANDIGARH

The postgraduate Institute of Medical Education and Research, Chandigarh was declared as an Institute of "National Importance" and became an Autonomous Body by an Act of Parliament (Act 51 of 1966), on 1st April, 1967. The Institute is fully funded by the Government of India. The main objectives of the Institute are:-

- To develop pattern of teaching of undergraduate and postgraduate medical education in all its branches so as to demonstrate a high standard of medical education;
- To bring together as far as may be in one place educational facilities of the highest order for training of personnel in important branches of health activity; and
- To attain self-sufficiency in postgraduate medical education to meet the country's need for specialists and medical teachers.

Academic Activities

Postgraduate Institute of Medical Education & Research, Chandigarh has been empowered to grant medical, dental and nursing degrees, diplomas and other academic distinctions and titles under the PGIMER, Chandigarh Act, 1966 (No.51 of 1966 and thereafter amended from time to time). For attaining self-sufficiency of postgraduate medical education and to meet the country's needs to have highly qualified and skilled medical teachers in medical sciences and to undertake basic community based research, the Institute has been striving hard and achieving

the desired goals in this direction too. The Institute conducts various Postgraduate courses viz. MD/MS, DM/M.Ch, Ph.D. and other paramedical courses viz. B.Sc. MLT and M.Sc. etc. The number of candidates passing various courses is increasing day by day with the increase of new centres at the Institute. A total of 116 candidates passed the MD/MS examinations in 2010 – 97 in the June batch and 59 in the December batch, Similarly, 20 candidates passed their DM/M.Ch. examination in May 2010 whereas 29 candidates passed DM/M.Ch. examination in December 2010 session. A total number of 2994 candidates have passed their MD/MS course and 1291 candidates have passed DM/M.Ch. Course upto 31.12.2010 and 30.06.2010 respectively. Apart from above, 56 candidates passed various other examinations viz. MHA, MPH (Part I & II), M.Sc. (Part I & II) and M.Sc. Nursing Part I examinations in May 2010 session whereas there were 65 candidates who passed out in December 2010 session. Similarly, in the examination held in August, 2010 for various paramedical courses like B.Sc. MLT, B.Ph., B.Sc.MT (OT) and B.Sc. Nursing etc., there were 261 candidates passing out above courses.

Candidates for MD/MS courses come from all parts of the country and also from abroad. At present the number of such candidates is 549 as on 31.07.2010. Similarly, for DM/M.Ch. Courses, there were 194 candidates on roll as on 31.07.2010. Besides, there were 144 candidates on rolls of the Institute as on 31.07.2010 pursuing Ph.D. courses. Lists showing above position are attached for showing no. of candidates from different States pursuing different courses at PGI, Chandigarh.

Since 2007, PGI has introduced three new courses in the super-specialties viz. D.M. (Paediatric Critical Care and Paediatric Haematology Oncology) in the Department of Paediatrics and D.M. in Neuro-Radiology in the Department of Radiodiagnosis. Besides, Postgraduate course of M.Sc. (Anatomy) has also been started.

There are also other courses which are proposed in the near future:-

- a) D.M. in Haemato-Pathology in Haematology Department.
- b) D.M. in Cardiac-Anaesthesia in Anaesthesia Department.
- c) D.M. in Clinical Haematology in Internal Medicine Department.

- d) D.M. in Paediatric Neurology in Paediatrics Department.
- e) M.Sc. in Respiratory course in Pulmonary Medicine Department.
- f) M.D.S. in Oral & Maxillofacial Surgery in Oral Health Sciences.
- g) A.P.G. Diploma in Public Health Management (PGDPHM) in the School of Public Health.

Hospital Services

The Nehru Hospital attached to the Postgraduate Institute of Medical Education & Research, Chandigarh provides tertiary care in all the medical and surgical specialties to the patients, who came not only from the adjoining States but also from far off States like West Bengal and Bihar.

The total bed strength of the PGI has increased to 1612 beds. The number of patients who attended the Outpatients Departments and those admitted during the last three years is as under:-

	2007-08	2008-09	2009-10
OPD Attendance	13,19,973	14,13,796	15,46,639/-
Admissions	56,078	58,496	62,330/-

Emergency and critical patients were attended to round the clock. A total number of 50,943 patients were attended in the emergency and 30,845 were admitted. In the emergency operation theatres, a total of 10,766 operations were performed including 9,535 major operations (which includes Labour Room operations) and 1,231 minor operations. During the financial year 2009-10, 2,09,24,201/- was spent for subscription of 530 Journals Rs.23,23,1809 lacs was spent for online Medical Database and, Rs. 86543/- has been spent for the purchase of books.

A new Central Animal House facility and clean room for Stem Cell Research have been established in the Institute during the year, 178 Research Schemes were completed and 324 Research Schemes funded by ICMR, DST.U.T., New Delhi, international agencies etc. were under progress. There were 569 publications in indexed and non indexed national and international journals, 10 visiting Professors, from all over the World, visited the Institute. 293 students were conferred various doctoral/post doctoral degrees. 29 faculties members were conferred various awards/honours during the year.

15.17 LADY HARDINGE MEDICAL COLLEGE & SMT. S. K. HOSPITAL NEW DELHI

The Lady Hardinge Medical College (LHMC), New Delhi was established in the year 1916 with a modest beginning of just 14-16 students. Over the years, the Institute has matured as a pioneering Institute for Medical Education and now it has the existing strength of 150 admissions per year for MBBS girl students. The 95th Academic Year (2009-10) of the College began with 724 undergraduates and 128 interns on the rolls. The College, which is affiliated to the University of Delhi since the year 1949, has continued to admit students from all over India, as well as from foreign countries. A separate out patient block was started in 1958 to cater the needs of ever increasing population of Delhi.

The hospital statistics for the period 2008-09 is as under:-

Bed Strength	1247
OPD Attendance	541240
Indoor Admissions	31145
Sterilization	1295
Bed Occupancy	65.7%
Surgeries performed:-	
Minor	6891
Major	8077
Total	14968

The necessary follow up action is going on to implement the comprehensive re-development plan of LHMC & Associated Hospitals approved by Cabinet Committee of Economic Affairs at the total cost of Rs. 387.31 crore.

A modern intensive Coronary unit has been established. Rheumatology Clinic and Adult Thalassemia Clinic have been started under the Deptt. of Medicine. H1N1 Influenza screening OPD and in-patient ward have also been established under the Deptt. of Medicine. Voluntary Counseling Test Centre (VCTC) and Prevention of parent to child transfer (PTCT) for HIV patients under the supervision of National Aids Control Organization (NACO) are part of the Department of Microbiology. HIV DNA PCR Lab under National Pediatric HIV initiative to diagnose HIV infection in newborns up to 18 months has also started functioning in the Deptt. of

Microbiology. Surveillance facilities for meningococcal and Dengue fever are also in place in view of frequent occurrences of these diseases. Facilities for Advanced Laparoscopic Surgery using High Definition Camera and 24 hours Ambulatory Esophageal PH Monitoring for diagnostic and research purpose are also available in the Deptt. Of Surgery a number of "Rainwater harvesting wells" have been constructed and Solar panels installed. Separation of Eye Operation Theatre and ENT Operation Theater is under process and is likely to be completed during the current financial year.

A number of research projects have been going on in many Departments of the institution. The total numbers of papers published during the year are 131.

The total budget provision as per BE 2010-11 is Rs.176 crores (Plan – Rs.79.00 crore & Non-Plan – Rs.97.00 crore).

15.18 KALAWATI SARAN CHILDREN'S HOSPITAL, NEW DELHI

Kalawati Saran Children's Hospital (KSCH) is a premier referral Children's Hospital of national importance. The Hospital started functioning in the year 1965 for imparting medical care service exclusively for Paediatrics patients upto 18 years of age. At present it has 370 beds. Under the (JICA) scheme for the improvement of KSCH, the bed strength of this Hospital is being increased to 500.

Kalawati Saran Children's Hospital is one of the busiest children hospitals in the country and caters to a daily OPD attendance of 800-1000 children, and 80-100 new admissions per day from Delhi and neighbouring states. The hospital is a Sentinel Centre for Poliomyelitis, Tetanus and Measles. It has the unique distinction of having a separate Pediatric Emergency with direct inflow of patients. It also houses the Diarrhoea Training and Treatment Unit, the first such unit in the country, which has also been recognized by WHO and Govt. of India as a training centre for diarrhoeal diseases. The hospital has also served as a training centre for ARI, UIP and other National Health Programmes.

The Institution is a super speciality hospital in real sense with its fully developed subspecialties like Neurology, Nephrology, Gastroenterology & Nutrition, Hematology, Pulmonology and Endocrinology.

Indo-Japan Friendship Block of Kalawati Saran Children's Hospital has been constructed with an expenditure of over Rs.54 crores for the building and the latest equipment

for various sections of the Hospital which has been helpful in easing the problem of inadequate space and technological upgrading of the Institution.

Kalawati Saran Children’s Hospital was designated as “Nodal Centre for Pre-service IMNCI (Integral Management of Neonatal and Childhood Illness) implementation in NIPI States”. The Hospital organized National Training of Trainers Course of IMNCI with support of Govt. of India/ WHO/UNICEF.

Infant and Young Child Feeding (IYCF) Counseling Centre was started in Kalawati Saran Children’s Hospital to strengthen IYCF practices. Autism evaluation cell was started in the Hospital. Hemophilia follow-up clinic facilities are provided on first Wednesday (afternoon) of every month in the Department of Physical Medicine & Rehabilitation Department. Once a month After Completion of Therapy (ACT) clinic for follow-up of children treated for lymphoma and leukemia was started in the first Monday of every month. Kalawati Saran Children’s Hospital organized a sensitization workshop on “Infant and Young Child Feeding” in collaboration with Govt. of NCT Delhi from 24th to 26th March 2009.

An advanced centre of pediatrics care has been set up at the Hospital. This Centre is poised to be one of the premier center of Paediatrics care in the country. The Hospital statics for 2009-10 are as under :-

Total No. of sanctioned beds	370 (340 + 30 at Nursery Smt SK Hospital)
Total OPD attendance	3,09,398
No. of admissions	27,951
Bed occupancy rate	110.6%
Minor operations	1427
Major operations	2519
Casualty attendance	62,339
Neonatal & Nursery Care	7,200
No. of patients admitted in ICU	1228
Patients attended in PMR Deptt.	80,115
Gross Death Rate	9.0

Centre for adolescent Health was established in March 2009 with the objectives of providing special services to adolescents , to teach and train medical and nursing students, and to conduct research relevant to the needs of adolescents of India.

Kalawati Saran Children’s Hospital has developed the training modules on Facility Based Care-Integrated Management of Neonatal and Childhood Illness (IMNCI). Kalawati Saran Children’s Hospital also developed training modules on Facility Based Care of Severe Acute Malnutrition.

Clinical Epidemiology Unit was established in Lady Hardinge Medical College in November 2009 with the objectives of felicitating research activities, and for teaching and training of undergraduates, postgraduates and faculty in clinical epidemiology.

The total budget provision as per BE 2010-11 is Rs 47.26 crore (Non-Plan-Rs 3.26 crore & Plan- Rs 24 crore.

15.19 MAHATMA GANDHI INSTITUTE OF MEDICAL SCIENCES/KASTURBA HEALTH SOCIETY, SEVAGRAM, WARDHA

The Mahatma Gandhi Institute of Medical Sciences (MGIMS), Sevagram is India’s first rural medical college. Nestled in the *karmabhoomi* of Mahatma Gandhi, in Sevagram, this Institute was founded by Dr Sushila Nayar. Started in the Gandhi Centenary Year 1969, it was designed to be an experimental model institute where medical education will be reoriented to meet the needs of the rural areas. In the spirit of its founder, the mission of MGIMS today continues to be committed to the pursuit of professional excellence by evolving an integrated pattern of medical education and seeks to provide accessible and affordable health care primarily to underprivileged rural communities. It has completed 41 successful years in the service of this mission and is now one among the best rated medical colleges in the country. The expenditure of MGIMS is shared by the Govt of India, Govt of Maharashtra and the Kasturba Health Society in the proportion of 50:25:25 as per the agreed pattern. This Government of India released the grant-in-aid of Rs.27.21 crores during the year 2009-10.

The students at MGIMS are drawn from all parts of the country and come from all kinds of social backgrounds. Every effort is made to acquaint the medical student to the real rural India. The approach to medical education

with spotlight on rural community oriented education makes the doctors coming out of the Institute be sensitive to the felt needs of the underprivileged. The entrance examination to the MBBS course includes a separate qualifying paper on Gandhian Thought. The students and staff of the Institute adhere to a unique code of conduct, where they are expected to wear khadi, participate in shramdan, attend all-religion prayer and abstain from non-vegetarian food, alcohol and tobacco.

The Institute offers degrees and diplomas in 19 postgraduate disciplines of which 18 are MCI recognized and 19th in Skin and VD has just started this year. Seven of its Departments are recognized for PhD. It has a well equipped fully computerized digital library which is a recognized resource library for HELLIS network in Western India. Since 1991, the Institute follows a unique Rural Service Scheme through its graduates. The students are posted in these NGOs and regularly monitored. Two years rural service is mandatory eligibility criteria for admission to post-graduation and this is achieved through 96 non-governmental organizations who have joined hands with the institute to fulfill this dream.

At present 95 extramural research projects are on going. Each year, the large numbers of national and international peer reviewed publications from this Institute provide evidence of excellence in research. Based on its recent research the Department of Forensic Medicine had submitted a 258 pages report to Union Ministry of Health and Law highlighting the lacunae in examination reports of victims of sexual assault resulting in the lack of documentary evidence to implicate the assaultees. Based on this report the Centre and State Governments have come up with various guidelines for medical officers to ensure proper forensic examination of victims of sexual assault.

The Department Community Medicine has adopted many villages over 60 in number, where they have constituted number of Women's Self Help Groups in order to promote women to play pro-active role in health care delivery in their villages. A total of 149 Groups have been created and more than 98% of these groups are linked with banks and have updated account books.

Hospital Services

Kasturba Hospital of the Institute has the distinction of being the only hospital in the country which was started by the Father of the Nation himself. The patient load comes to us not only from Vidarbha in Maharashtra, but

also from adjoining parts of Andhra Pradesh, Madhya Pradesh and Chhatisgarh. It acts as a tertiary care hospital with all the modern health care amenities but provides health services at affordable cost and with compassion. It has a unique insurance scheme in which 20345 families were insured this year.

In 2009-10, 528184 patients attended the hospital as outpatients and 40256 patients were admitted for various ailments. The Hospital has state-of-the-art intensive care units in Medicine, Surgery, Obstetrics and Gynecology and Paediatrics which provide excellent critical care. A well equipped hemodialysis unit is available for patients of renal failure. The Sri Satya Sai Accident and Emergency Unit provides succour to patients of trauma. With the grant from Govt. of India for Emergency and Accident Ward the Institute has a fully equipped high tech Trauma Ambulance alongwith wireless system. The Institute has the only Blood Component Unit in the district which provides components not only to patients in Kasturba hospital, but also to private hospitals in the district. Facilities for MRI, CT scan and Mammography are available. The Alcohol and Drug De-addiction centre seeks to rehabilitate patients who are addicted to drugs and alcohol. The Hospital has also been providing Geriatric services to address to the needs of older people. Its Radiation Oncology Department has received a grant-in-aid of Rs. 2 crore from the Govt of India to develop the Oncology wing under the National Cancer Control Programme and the Department is fully equipped with state of the art radiotherapy equipments including Linear Accelerator, HDR Brachytherapy Machine, 3D treatment Planning system and Simulator. The Pathology, Microbiology and Biochemistry laboratories have in-house facilities and automation to conduct a battery of diagnostic tests. All Departments of the hospital are connected by an advanced Hospital Information System. The Govt. of India has sanctioned grant-in-aid for infrastructural facility to accommodate additional 192 indoor patients to Kasturba Health Society at MGIMS, Sewagram. The building is under construction.

The Department of Obstetrics and Gynaecology offers expert obstetric care to the unwed, the divorced, and the widowed women with advanced pregnancy and ensures that they deliver safely in the hospital. Till date 289 women have been helped under this project. This year eight unwed mothers have availed themselves of this assistance. The project also supports babies born out of such pregnancies and keeps them in "Aakanksha" till they

can be legally adopted. This year legal adoption of 10 babies has been facilitated.

The total budget provision as per BE 2010-11 is Rs 27.00 crore.

15.20 NATIONAL CENTRE FOR DISEASE CONTROL (NCDC)

The Institute is under administrative control of the Director General of Health Services, Ministry of Health and Family Welfare, Govt. of India. The Director, an officer of the Public Health subcadre of Central Health Services, is the administrative and technical head of the institute. The Institute has its headquarters in Delhi and had 8 branches located at Alwar (Rajasthan), Bengaluru (Karnataka), Kozhikode (Kerala), Coonoor (TamilNadu), Jagdalpur (Chattisgarh), Patna (Bihar), Rajahmundry (Andhra Pradesh) and Varanasi (Uttar Pradesh).

There are several technical Divisions at the headquarters of the institute i.e. Centre for Epidemiology and Parasitic Diseases (Dept. of Epidemiology, Dept. Parasitic Disease), Division of Microbiology, Division of Zoonosis, Centre for HIV/ AIDS and related diseases, Centre for Medical Entomology and Vector Management, Division of Malariology and Coordination, Division of Biochemistry and Biotechnology.

In each division there are several sections and laboratories dealing with different communicable diseases. The divisions have well equipped laboratories with modern equipments, capable of undertaking tests using latest technology. The activities of each division are supervised by an officer in –charge, supported by medical and non-medical scientists, research officers and other technical and paramedical staffs. The branches are also well equipped and staffed to carry out field studies, training activities and research.

15.20.1. Integrated Disease Surveillance Project

Background:

Integrated Disease Surveillance Project (IDSP) was launched by Hon'ble Union Minister of Health & Family Welfare in November 2004 for a period upto March 2010. The Project has been extended for two years up to March 2012 by Government of India.

A Central Surveillance Unit (CSU) at Delhi, State Surveillance Units (SSU) at all State/UT head quarters and District Surveillance Units (DSU) at all Districts in the country have been established.

Objectives:

- To strengthen the disease surveillance in the country by establishing a decentralized State based surveillance system for epidemic prone diseases to detect the early warning signals, so that timely and effective public health actions can be initiated in response to health challenges in the country at the Districts, State and National level.

Project Components:

- 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.

Data Management:

Under IDSP data is collected on epidemic prone diseases on weekly basis (Monday–Sunday). The information is collected on three specified reporting formats, namely “S” (suspected cases), “P” (presumptive cases) and “L” (laboratory confirmed cases) filled by Health Workers, Clinicians and Laboratory staff respectively. The weekly data gives information on the disease trends and seasonality of diseases.

Whenever there is a rising trend of illnesses in any area, it is investigated by the Rapid Response Teams (RRT) to diagnose and control the outbreak. Data analysis and actions are being undertaken by respective State/District Surveillance Units. Emphasis is now being laid on reporting of surveillance data from Major Hospitals and also from Infectious Disease Hospitals. Overall 85% Districts are reporting weekly disease surveillance data under IDSP.

Outbreak Surveillance and Response:

CSU, IDSP receives disease outbreak reports from the States/UTs on weekly basis. Even NIL weekly reporting is mandated and compilation of disease outbreaks/alerts

is done on weekly basis. On an average 10-20 outbreaks are reported to CSU weekly. A total of 553 outbreaks were reported in 2008 and 799 outbreaks in 2009. In 2010, 871 outbreaks have been reported from January to October 2010. Majority of the reported outbreaks were of Acute Diarrhoeal diseases, Food poisoning, Measles and Chickenpox.

Contribution of IDSP in Influenza A H1N1

Outbreak Monitoring Cell on 24x7 basis has been established at National Centre for Disease Control (NCDC) for monitoring the situation. Community, Private Practitioners, Nursing homes and Hospitals have been requested to report to IDSP Call Centre on 1075 (Toll free number) in case of any occurrence of clusters of Influenza like illness in the community. 12 Laboratories are strengthened out of which 10 laboratories are functional and 2 are in process of strengthening under IDSP for testing clinical samples of Influenza A H1N1 in different regions of the country. 11 strains have been sequenced at NCDC Laboratory. State and District RRTs have been alerted to investigate and manage suspected outbreaks.

Media Scanning and Verification Cell:

Media scanning is an important component of surveillance to detect the early warning signals. Media scanning and verification cell daily receives an average of 4-5 media alerts of unusual health events which are detected and verified. A total of 1298 health alerts have been detected since its establishment in July 2008. In 2010, 388 media alerts were reported from January to October 2010; majority of them were Acute Diarrhoeal diseases, Food poisoning and Malaria.

Information & Communication Technology Network (ICT):

ICT plays an integral and most powerful role in implementing IDSP across the country. One of the important components of the project is data management, analysis and rapid communication in case of outbreaks.

Data Centre:

National Informatics Centre (NIC) has installed Data Centre Equipment at 776 out of 800 sites. The objective of Data Centre is online data entry for speedy data transmission.

Training Centre (NIC):

Training Centre Equipments have been installed at 378 out of 400 sites. State to District communication is possible by NICs E-Learning Portal (<http://e-learning.nic.in/lms>), which has facility in managing live virtual classrooms for training (State/Area specific discussion on disease surveillance activities), e-learning, interactive electronic discussion (Chat rooms, Boards, Mailing Lists) and reviewing and monitoring project related activities.

Training Centre (ISRO):

Indian Space Research Organization (ISRO) has installed training centre at 367 out of 400 sites (EDUSAT/VSAT).

Call Centre:

A 24X7 call centre has been established to receive disease alerts from anywhere across the country on a toll free number 1075 for verification and initiating appropriate public health actions. The call centre has a response mechanism by informing respective health officials at concerned Districts for early response. A total of 51496 calls were received from January - October 2010, out of which 3663 calls were related to Influenza A H1N1.

IDSP Portal:

The IDSP portal is a one stop portal (www.idsp.nic.in) which has facilities for data entry, view reports, outbreak reporting, data analysis, training modules and resources related to disease surveillance. Overall 55% of Districts reported in the portal from January to October 2010.

Training:

The training in IDSP is three-tiered:

- Master Trainers State and District Surveillance Officers and RRT members are trained at identified 9 National level institutes.
- The Medical Officers and District Lab Technicians are trained by Master Trainers at State level.
- Health Workers & Lab Technician/Assistants at peripheral institutions are trained by District officers/Medical Officers at District level.

Training of State/District Surveillance Teams has been completed for 27 States/UTS and partially completed in 4 States.

The main focus of training for State level participants is on basics of disease surveillance, concepts of epidemiology and data management, whereas the District training focuses on correct procedures of data collection, compilation and reporting and outbreak response. A need based special two-week Disease Surveillance and Field Epidemiology Training Programme (FETP) have been initiated for the District Surveillance officers. A total of 288 District Surveillance Officers have been trained for 2- week FETP in which 44 District Surveillance Officers were trained from January to October 2010.

State Health Societies were requested in May 2010 to recruit technical manpower under IDSP. 246 Epidemiologist, 34 Microbiologists and 16 Entomologists have joined in States and Districts till October 2010. States has been requested to expedite the filling up the remaining contractual positions at the State/Districts levels. Induction training to 191 Epidemiologists, 15 Microbiologists and 7 Entomologists has been completed.

Infectious Disease Hospital Surveillance Network:

7 Infectious Disease Hospitals, one each in Delhi, Mumbai, Chennai, Kolkata, Bangaluru, Ahmedabad and Hyderabad have been given funds for strengthening epidemic-prone disease surveillance under IDSP. EDUSAT network has been installed at these Hospitals. Infectious Disease Hospitals of Mumbai, Chennai, Delhi, Ahmedabad and Kolkata have started reporting weekly disease surveillance data.

Strengthening of Laboratories:

50 priority District laboratories are being strengthened in the country for diagnosis of epidemic prone diseases. The guidelines and procurement of certain deficient lab equipment were communicated to the States in February 2009. Till date 18 States i.e. 26 labs have completed the process of procurement. These labs are also being supported by a trained manpower to manage the lab and an annual grant of Rs 2 lakhs per annum per lab for reagents and consumables. 13 laboratories are functional at present.

In 9 States, a referral lab network is being established by utilizing the existing functional labs in the medical colleges and various other major centers in the States and linking them with adjoining Districts for providing diagnostic

services for epidemic prone diseases during outbreaks. The plan for all 9 States has been finalized through State level meetings and the network is functional in 3 States namely Gujarat, Punjab and Rajasthan. The network plan is in process of implementation in the remaining 6 States.

Entomological Surveillance on Vector Borne Diseases:

Vector borne diseases like Malaria, Japanese Encephalitis, Dengue, Kala-azar etc. are of major public health concern. Every year outbreaks/ epidemics occur in different parts of the country leading to high morbidity and mortality. Entomologists have joined in 16 out of 35 States/UTs. Entomological surveillance and monitoring of vector borne diseases are being carried out by the Entomologists.

Tribal and Social Plan:

Gujarat, Maharashtra and Karnataka are piloting community surveillance as part of the Tribal Action Plan. West Bengal is planning to prepare a community surveillance strategy involving Panchayat representatives and community volunteers.

Gujarat has started planning the tribal action plan (TAP) (community surveillance among tribal communities) in two Taluks of the Nizar block of the Tapi district, where over 90 percent are tribal and live in remote locations. The Gujarat TAP pilot will involve participation of community volunteers, health workers, and NGOs. The Tapi DSU is collecting baseline data on health service, access, disease incidence and outbreak reporting patterns so as to be able to prioritize outreach and monitor outcomes.

Karnataka and Maharashtra have started working on their TAP pilots in two select blocks each involving community health workers and volunteers. Maharashtra is piloting community surveillance as part of the TAP in Taloda and Akkalkowa blocks of Nadurbhar district; and Karnataka in Gundulpet and Kollegal blocks of Chamrajnagar district.

Prevention and Control of Avian/H1N1 Influenza:

A networking model has been developed with 12 laboratories, out of which 10 labs are functional. The Animal Component of Avian Influenza is being looked after by Ministry of Agriculture (Dept. of Animal Husbandry).

Finance:

Budget and Expenditure for IDSP is as under:

Sl. No.	Year	Budget Estimates (Rs. in crores)	Expenditure (Rs. in crores)	% of expenditure w.r.t. BE
1	2009-10	48.50	39.95	82.37
2	2010-11(upto October 2010)	35.00	27.24	77.82

Achievements of Integrated Disease Surveillance Project (IDSP)

A Central Surveillance Unit (CSU) at Delhi, State Surveillance Units (SSU) at all State/UT head quarters and District Surveillance Units (DSU) at all Districts in the country have been established.

- Central Surveillance Unit, IDSP presently receives weekly disease surveillance data from 527 districts (85%) in the country.
- A total of 335 (55%) districts are accessing one stop portal for data transmission, trend analysis and resources like guidelines, advisories for health personnel related to disease surveillance, etc.
- On an average, 10-20 outbreaks are reported to CSU weekly by States. In 2010, 871 outbreaks have been reported from January to October 2010. Majority of the reported outbreaks were of Acute Diarrhoeal diseases, Food poisoning, Measles and Chickenpox.
- Media scanning and verification cell detects an average of 4-5 media alerts of unusual health events daily. In 2010, 388 media alerts were reported from January to October 2010; majority of them were Acute Diarrhoeal diseases, Food poisoning and Malaria.
- IT network has been established for data entry, training, video conferencing and outbreak discussions. Data centre has been established in 776 out of 800 sites, and training centre has been established in 745 out of 800 sites with video conference facility.
- A 24X7 call center has been established to receive disease alerts from across the country on a Toll free number 1075. A total of 51496 calls were received from January - October 2010 out of which 3663 calls were related to Influenza A H1N1.
- Outbreak Monitoring Cell on 24x7 basis has been established at National Centre for Disease Control (NCDC) for monitoring the situation. Community, Private Practitioners, Nursing homes and Hospitals have been requested to report to IDSP Call Centre on 1075 (Toll free number) in case of any occurrence of clusters of Influenza like illness in the community. 12 Laboratories are strengthened out of which 10 laboratories are functional and 2 are in process of strengthening under IDSP for testing clinical samples of Influenza A H1N1 in different regions of the country. 11 strains have been sequenced at NCDC Laboratory. State and District RRTs have been alerted to investigate and manage suspected outbreaks.
- Training of State/District Surveillance Teams has been completed for 27 States/UTS and partially completed in 4 States.
- A total of 288 District Surveillance Officers have been trained in special 2- week FETP of which 44 District Surveillance Officers were trained from January to October 2010.
- State Health Societies were requested in May 2010 to recruit technical manpower under IDSP. 246 Epidemiologist, 34 Microbiologists and 16 Entomologists have joined in States and Districts till October 2010. States has been requested to expedite the filling up the remaining contractual positions at the State/Districts levels. Induction training to 191 Epidemiologists, 15 Microbiologists and 7 Entomologists has been completed.
- Procurements of deficient equipments completed in 9 more States (16 labs); making it a total of 18 States (26 labs). Expenditure guidelines for the annual grant of Rs. 2 Lakhs per District priority lab communicated to the States. Hand holding of the States via video conferencing and on site lab

visits for making the District lab functional. 13 laboratories are functional at present.

- Referral lab network plans were finalized through State level meetings with the stakeholders for remaining 3 States namely Maharashtra, Andhra Pradesh and Rajasthan. Implementation guidelines, prototype MoU for the referral lab network and expenditure guidelines for the grant for the referral labs under the network communicated to the States. Specimen collection and transport guidelines for use at the district level during outbreaks communicated to the States for further communication to the Districts.
- Entomology unit has been established with the objective of updating the entomological surveillance of vector borne diseases in the country.

Integrated Disease Surveillance Project - North Eastern States:-

Background:

Integrated Disease Surveillance Project (IDSP) is a decentralized State based programme to strengthen surveillance system for epidemic prone diseases for early detection and control of outbreaks. As on date, all States and Union Territories including North Eastern States are implementing IDSP. The component wise details of status / achievements in North East states are as under:

IT Networking:

In N.E States, IDSP has established linkages with all States/Districts HQ & all Govt. Medical colleges on a Satellite Broadband hybrid network. The State wise details are as under:

Sl. No.	State	Data Centre	Broadband Connectivity	Video Conference Facility
1.	Arunachal Pradesh	14/14	11/14	13/14
2.	Assam	27/27	27/27	26/27
3.	Manipur	11/11	4/11	11/11
4.	Meghalaya	9/9	7/9	9/9
5.	Mizoram	10/10	4/10	10/10
6.	Nagaland	12/12	9/12	12/12
7.	Sikkim	6/6	6/6	4/6
8.	Tripura	6/6	5/6	4/6
Total		95/95	73/95	89/95

Manpower status:

Since July 2010, manpower recruitment has been decentralized and State wise break up of technical manpower is as under.

Sl. No.	States	Epidemiologists in position	Microbiologists in position	Entomologist in position
i)	Arunachal Pradesh	15/17	1/2	1/1
ii)	Assam	4/24	2/2	0/1
iii)	Manipur	7/10	1/2	0/1
iv)	Meghalaya	0/8	2/2	1/1
v)	Mizoram	0/9	1/3	0/1
vi)	Nagaland	0/12	0/3	0/1
vii)	Sikkim	1/4	1/2	0/1
viii)	Tripura	0/5	0/2	0/1
Total		27 / 90	8/18	1/8

Training Status:

Training of Trainers (ToT) of State and District Rapid Response teams (RRT) has been completed for eight North Eastern States. State wise details are as under:

Sl. No.	States	Master Trainers Trained in ToT	Medical Officers	Health Workers	District Laboratory Technicians	Peripheral Laboratory Technicians
i)	Arunachal Pradesh	61				Trainings to be initiated
ii)	Assam	85	1792	1032		
iii)	Manipur	41	300	0	0	0
iv)	Meghalaya	38	123	515	17	102
v)	Mizoram	43	106	767	34	8
vi)	Nagaland	20	158	683	159	35
vii)	Sikkim	29	43	380	33	5
viii)	Tripura	20	131	658	14	36
Total		337	2653	4035	257	186

Data Management Status:

IDSP presently receives weekly disease surveillance reports from about 96% of the Districts of NE region (80 out of 83 districts). Data analysis and action are being taken by respective Districts.

Strengthening of Laboratories:

In North East States, strengthening of 10 identified district laboratories for diagnosis of epidemic prone diseases is in progress. These labs are being supported under IDSP for procurement of certain deficient equipments and posting of a trained Microbiologist to manage the lab. In addition these labs have been allocated Rs 2 Lakhs per annum per lab for reagents and consumables. Guidelines related to procurements, manpower recruitment and expenditure guidelines for Rs 2 Lakhs per annum have already been communicated to the States.

Outbreaks detected:

The major component of the project is to detect and respond to outbreaks in the early rising phase. In 2010,

the State has detected a total of 57 outbreaks till October 2010 which is as follows:

Sl.No.	States	No. of Outbreaks in 2010(up to October)
i)	Arunachal Pradesh	5
ii)	Assam	44
iii)	Manipur	2
iv)	Meghalaya	2
v)	Mizoram	0
vi)	Nagaland	2
vii)	Sikkim	1
viii)	Tripura	1
Total		57

Finance:

The Grants-in-aid released and expenditure incurred in

last 5 years i.e starting from the year 2003-04 of the project till 24 November 2010 is as under:

Sl. No.	States	Amount released (In Lakhs)	Amount expenditure (In Lakhs)
i)	Arunachal Pradesh	282.08	244.44
ii)	Assam	295.39	288.99
iii)	Manipur	94.20	22.28
iv)	Meghalaya	162.63	120.72
v)	Mizoram	358.49	375.91
vi)	Nagaland	365.31	321.71
vii)	Sikkim	96.20	67.8
viii)	Tripura	113.39	86.2
Total		1767.69	1528.05

15.20.2. Division of Parasitic Diseases

The Department is a nodal agency for planning, implementation, monitoring and evaluation of Yaws Eradication Programme (YEP) and Guinea Worm Eradication Programme (GWEP) in the country. It undertakes surveys, manpower development and research. On request, it also provides teaching materials like filarial slides to various colleges in the country and contributes to training of post graduate, undergraduate and nursing medical students who visit NCDC. The department also provides advice to states and districts in the control of parasitic diseases.

A. Yaws Eradication Programme (YEP) in India

Yaws Eradication Programme (YEP) was launched as a centrally sponsored scheme in 1996-97 in Koraput district of Orissa, which was subsequently expanded to cover all the 51 Yaws endemic districts in ten states (Andhra Pradesh, Orissa, Maharashtra, Madhya Pradesh, Chhattisgarh, Tamil Nadu, Uttar Pradesh, Jharkhand, Assam and Gujarat). The programme aimed to reach the un-reached tribal areas of the country.

National Centre for Disease Control has been identified as the nodal agency for the planning, monitoring and evaluation of the Programme. The Programme is implemented by the State Health Directorates through

the existing health care system. The number of reported cases has come down from 3751 to nil during the period from 1996 to 2004 and subsequently no case has been reported from any of the states till October, 2010.

The programme envisages achieving its objective through adoption of following strategies:

- Case finding: active case search, passive surveillance, rumour reporting;
- Treatment of cases and contacts;
- Manpower development;
- IEC activities and
- Multisectoral approach.

Around 10000 sera samples collected from 1-5 years children till October, 2010 tested negative for Yaws by RPR/TPHA test. Funds in the form of "Grant-in-aid" are being provided to the states for operational cost to undertake activities under YEP.

B. Guinea Worm Eradication Programme (GWEP) in India

In 1983-84, National Centre for Disease Control was made the nodal agency by the Ministry of Health & Family Welfare, Govt. of India for planning, co-ordination, guidance and evaluation of Guinea Worm Eradication Programme (GWEP). At the beginning of the Programme i.e. in 1984, about 40,000 GW cases were reported in 12,840 guinea worm endemic villages 89 districts of seven endemic states, viz. Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra and Rajasthan. The State of Tamil Nadu remained free from GW disease since 1982.

The last guinea worm case in India was reported in July 1996 in Jodhpur district of Rajasthan. World Health Organization certified India as guinea worm disease free country in February 2000. However, routine surveillance continues till the disease is eradicated from the globe.

C. Lymphatic Filariasis: Manpower Development

The Department is imparting training course on lymphatic filariasis at its three Regional Filaria Training and Research Centres (RFT&RC) functioning at Kozhikode in Kerala, Rajahmundry in Andhra Pradesh and Varanasi in Uttar Pradesh.

Training courses for Medical Officers/Biologist/Programme Officers for 5 days on lymphatic Filariasis organized during the reported period at NCDC branches

Varanasi from 23-27 August, 25-29 September, Kozhikode 19-23 July, 4-8 October and Rajahmundry 6-10 September 2010.

Training course on filariology for Fialria Inspectors/ Technicians for 10 days organized during the reported period at NCDC branch Varanasi 12-23 April, 13-14 September, Kozhikode 2-13 August and Rajahmundry 15-26 November 2010.

15.20.3. Microbiology Division

Coxsackie B Virus: To find out the association between myocarditis and Coxsackie B virus, paired serum samples from 36 cases from different hospitals were received and tested. All the samples were found negative to Coxsackie B group (B1-B6) virus infection.

Measles: Sixty-two (62) clinically suspected cases of SSPE were reported to the laboratory. Twenty-four (24) of these cases were confirmed by laboratory tests showing of high titre anti measles antibodies in serum and CSF samples. No such case, so far, is reported following measles vaccination. Twenty-four (24) serum samples from suspected measles cases were received. Thirteen (13) were positive for anti measles IgM antibodies.

Viral Hepatitis

A total of 1216 serum samples were received and tested for various markers of viral hepatitis. 28 cases showed evidence of hepatitis A, 32 of hepatitis E and 148 of acute and chronic hepatitis B.

Congenital Viruses: These viral infections result in abortions and congenital malformation in infants. A total of 495 samples from women having bad obstetric history and congenitally malformed babies and viral encephalitic cases were tested for antibodies against Rubella, Cytomegalo virus & Herpes simplex virus infections. 229 serum and 203 CSF were tested for HSV encephalitis.

Viral Encephalitis: 26 cases from viral encephalitis from Delhi hospitals were received and tested for anti-measles anti HSV, anti Rubella, Vericella, mumps, EBV IgM and EV-71 antibodies.

ILI Surveillance

A total of 879 ILI Surveillance samples have been processed by Multiplex PCR from May, 2008 to till date out of which 31 are positive for Influenza A, 10 positive for influenza B, 8 for Influenza A H1N1 and 5 for para Influenza.

Viral Conjunctivitis: Twenty-five (25) eye swab were tested for enteroviruses. Four were found positive for Coxsackie A24 and EV-71 viruses.

National Polio Surveillance:

AFP Surveillance: The Virology laboratory of NCDC has been accredited as WHO National Polio Lab to assist NPSP on lab based surveillance of Acute Flaccid Paralysis. In this regard, 3000 stool specimens, 1500 cases were received and tested. 150 isolates found positive for polio virus were sent to ERC, Mumbai for further typing and intratyping characterization.

Supplementary Environmental Surveillance:

As per Govt. of India, Ministry of Health & FW, NCDC has been selected to carry out supplementary surveillance by collecting sewage samples on weekly basis from 7 sites selected by NPSP to see the presence of any wild poliovirus in the sewage. In this regard, 118 sewage samples have been collected and tested at NCDC and ERC, Mumbai in parallel. 18 samples were found to be positive for wild polio virus (P1-5, P3-7 and P1+P3 – 46) indicating that the wild virus is still circulating in the community.

Tuberculosis:

A total of 731 clinical samples (mainly serum samples and a few other samples like CSF pleural, other fluids, obtained from suspected cases of tuberculosis were tested for the presence of anti A60 mycobacterial antibodies by ELISA test. 287 samples were found to be positive. In addition, 150 clinical samples obtained from suspected cases of tuberculosis were subjected to mycobacterial culture 6 mycobacterial isolates were subjected to drug sensitivity test using BACTEC as well as Conventional method.

Bacteriology

148 samples (including CSF, blood and slides) obtained from suspected cases of pyogenic meningitis were subjected to culture examination and rapid latex agglutination test for antigen detection. 365 clinical samples from suspected diphtheria cases in Delhi were processed for diphtheria cases in Delhi were processed for diphtheria culture. 347 urine samples were subjected to culture examination. Blood culture was carried out in 98 samples from cases of enteric fever. 89 pus, throat swabs and other samples were subjected to culture examination. 15 samples were processed for Legionella culture and IFA test.

Diarrheal Diseases Laboratory

A total No. of 642 rectal swab/stool samples from gastroenteritis cases in and around Delhi from Infectious Diseases Hospital, and Aruna Asaf Ali Hospital, Delhi processed for the presence of enteropathogens *Vibrio cholerae* 01 and non-agglutinating cholera, *Shigella* and *Salmonella* sp. Out of 642 samples, 187 positive for *V.cholerae* 01, 3 NAG, 8 *Shigella*, 31 *Salmonella*, 6, *E.coli* pure culture, 1 *Clostridium difficile* and 3 Rota virus.

Twenty-nine (29) referral diagnostic samples were received, out of which 2 VCO1, 2 *Shigella*, 4 *Clostridium difficile* were diagnosed.

A total No. of 31 samples received from various parts of India, as part of outbreak investigation, 9 positive for VCO1, 5 EFC 1 Rota virus. 100 isolates processed for Antimicrobial sensitivity.

Following new diagnostic services are added during the reporting year.

- i. Diagnosis of viral diarrhoea: Rotavirus and Norovirus detection by ELISA test.
- ii. Diagnosis of antibiotic associated diarrhoea: *Clostridium difficile* toxin detection by ELISA test.
- iii. Molecular diagnosis of Traveller's diarrhoea: Enterotoxigenic *E.coli* (ETEC); Enteropathogenic *E. coli* (EPEC) and Enteroinvasive *E.coli* (EAEC) detection by multiplex PCR.

Environmental Laboratory:

A total of 351 (Three hundred and fifty-one) drinking water samples belonging to different drinking water sources (collected during outbreak investigations of water borne diseases, samples from air-line caterers serving VVIP flights, referred samples from schools, hospitals, domestic sources etc.) were tested for bacteriological standards by the MPN Coliform method. 233 (66.38%) of these were found satisfactory, while the remaining 118 (33.6%) were unsatisfactory. Other than this, 123 sewage water samples were collected and processed for polio virus surveillance in Delhi. Concentrated samples were sent to ERC, Mumbai for polio virus isolation. 2500 H2S strip bottles prepared were supplied for polio surveillance in other outbreaks.

Media Room

Approximately 4000 plates of routine plate media (Blood agar, MacConkey agar, Chocolate agar, MH agar etc.)

were supplied in this period. 2000 plates of specialized/selective media (e.g. XLD, SSA, TCBS, etc) were supplied. Around 5000 tubes, 550 vials and 300 flasks of liquid media (e.g. Peptone water, Selenite broth, McConkey broth etc.) were supplied. 600 vials of transport media eg (Cary-Blair medium were supplied by Media room. 1000 nutrient agar slabs were supplied as preservative media. 5000 tubes of biochemical test media (e.g. PPA, TSI Agar, Simmon's citrate, RCUT media etc.) were supplied.

Mycology Laboratory

It provides Diagnostic mycology services to the referred cases from Delhi Hospitals. The important mycotic infections that were diagnosed: *Cryptococcus*- 6, *Aspergillus* - 9 *Candida albicans* - 2, *Candida sp.p-1*, *Alternaria spp.-1*, *Nocardia spp-1*. This involved processing of 105 clinical specimens such as CSF, sputum, blood, serum, skin scrapings and tissue biopsies.

In addition assisted in disease outbreaks and carried out teaching and training activities.

15.20.4. Centre for Medical Entomology and Vector Management

Centre for Medical Entomology and Vector Management is reorganized to develop it as a National Centre par excellence for undertaking research, providing technical support and to develop 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. Major achievements are highlighted below:

Major achievements

1. Based on the detection of Dengue virus antibodies in vector mosquitoes early warning signals were issued to Municipal Health Officer, MCD, Delhi, Chief Medical Officers of district Sonapat & Panipat (Haryana) for possible outbreak of Dengue.
2. Officers and staff members of CME&VM monitored dengue surveillance activities in Central Zone, Shahadra Zone & South Zone of Delhi during current Dengue/Chikungunya epidemic.
3. Laboratory evaluation of two Transfluthrin based mosquito repellent liquid (RDE/LV/A-165) and 1.6% Transfluthrin (RDE/LV/A-166) vaporizer was

carried out in Peet Grady chamber against Culex quinquefasciatus mosquitoes and house flies (Musca domestica).

- Field evaluation of six insecticide compounds in respect of its residual efficacy under field condition is being carried out in Bastar district, Chhattisgarh state.

Ongoing Research Projects

- Studies on the presence of Dengue/JE Virus in vector mosquitoes.
- Japanese Encephalitis /Dengue virus detection in mosquitoes of some endemic areas.
- Entomological surveillance of vector of Yellow Fever, dengue and chickungunya mosquitoes in and around international airports and sea ports and vector control measures thereof.
- Studies on rodent-flea association at major Sea Ports of India.
- Studies on the role of certain anophelines in the transmission of malaria in Arunachal Pradesh and other parts of the country.
- Entomological surveillance of vectors of Scrub typhus in selected urban, peri-urban and rural set up of Delhi, NCR and other parts of the country.

Research abstracts submitted & accepted for presentation:

- Title “Malaria in rural foot hill of Aravali hill mountain range, India” submitted to DRDO for conference on “International Symposium on Recent Advances in Ecology & Management of Vector Born

Disease” at Gwalior (M.P.), w.e.f. 1st to 3rd December 2010.

- Title “Prevalence of different species of Aedes mosquitoes in urban localities of National Capital Territory of Delhi, India and detection of Dengue virus.” submitted to DRDO for conference on “International Symposium on Recent Advances in Ecology & Management of Vector Born Disease” at Gwalior (M.P.), w.e.f. 1st to 3rd December 2010.
- Title “Effectiveness of Diflubezuron (IGR) formulations against four vector species of mosquitoes.” submitted to DRDO for conference on “International Symposium on Recent Advances in Ecology & Management of Vector Born Disease” at Gwalior (M.P.), w.e.f. 1st to 3rd December 2010.

15.20.5. Division of Malariology & Coordination

- The division has a malaria clinic to check/cross check blood smears of clinically diagnosed cases for the presence of malarial parasites, referred by various hospitals of Delhi and surrounding districts of Uttar Pradesh and Haryana state. During the year 2010 upto 31st October, 10 a total of 1227 blood smears were examined, of which 91 were found to be positive. 72 for P vivax and 19 for P falciparum. Clinic also checks the slides brought from field by various divisions during Research & survey. A total of 11 blood smears were examined and all were found negative.
- A total of 582 students from different institutes were given short term training as follows:

S.No	Month	Institutions	No. of participants
1	18-1-10 to 20-1-10	MD Microbiology students of Delhi University of MAMC, LHMC, UCMS & VPCI	6
2	4-2-10 to 5-2-10	5 senior veterinary Army officers of RVC Centre and College Meerut under the aegis of Indian Vet. Research Institute, Izatnagar, Bareilly	5
3	05-2-10	B.Sc Nursing Students of St. Ann’s group of Institutions, Mulki, Mangalore	37
4	8-2-10 to 12-2-10	Post Graduate students from Department of Community Medicine of MAMC, LHMC, UCMS New Delhi	5

S.No	Month	Institutions	No. of participants
5	15-2-10	Trainees of 'diploma in health promotion Education' & PG Diploma in community Health care (PG- DCHC) from Health & Family Welfare Training and Research centre, Mumbai	30
6	17-2-2010	Medical officers of Himachal Pradesh under going "Professional Development Course in Management public health & Health sector reforms for the mid level Medical Officers" at State Health and Family Welfare Training Centre, Pari Mahal, Shimla	17
7	18-2-2010	B.Sc III yr life science students of Sri Aurobindo College(University of Delhi), Malviya Nagar, New Delhi	9
8	23-2-2010	Newly appointed CGHS and CHS officers undergoing induction training course at NIHFW, Munirka	22
9	11-3-2010	BHMS students of Dr. Padiar Memorial Hoemopathic Medical college, Ernakulum, Kerala	38
10	22& 23-3-10	DNB Students	3
11	27-4-10	2 nd year MBBS students of Army college of medical sciences, Delhi cantt.	19
12	11-5-10	2 nd year MBBS students of Army college of medical sciences, Delhi cantt	9
13	13-5-10	4 th year B.Sc Nursing students of Vidyarathana college of Nursing, Udupi	34
14	25-5-10	2 nd year MBBS students of Army college of medical sciences, Delhi cantt	14
15	28-5-10	Visit of 4 th year B.Sc Nursing students of VidyarathanaNitte Usha Institute of Nursing Sciences, Deralakatte, Karnataka	102
16	8-6-10	2 nd year MBBS students of Army college of medical sciences, Delhi cantt	14
17	15-6-10	MD (CHA) & DHA Final Year students from National Institute of Health & Family Welfare, Munirka	12
18	23-6-10	Senior Medical officers of BSF Academy, Tekanpur, Gwalior	11
19	13-7-10	Visit of 2 nd year M.Sc Nursing students of K. Pandyarajah Ballal Nursing Institute, Ullal, Karnataka	27
20	19-8-10	Visit of Class XIIth students of lady Irwin Senior Secondary school Shrimant Madhav Rao Scindia Marg, New Delhi	34
21	13-9-10	Medical officers of Department of community medicine, AFMC, Pune	10
22	23—9-10	Visit of M.Sc Nursing students of Bombay Hospital College of Nursing, Bombay	32
23	5-10-106-10-10 7-10-10	Visit of Final year BHMS students of Nehru Homeopathic Medical College and Hospital, Defence Colony, New Delhi	92
			582

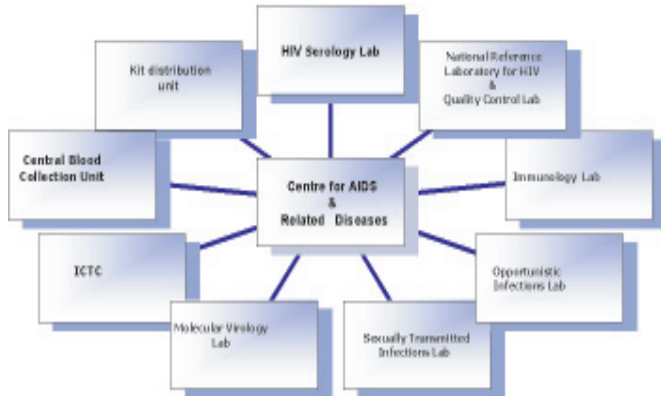
15.20.6. Centre for AIDS & Related Diseases

Introduction

The Division of AIDS was established at National Centre for Disease Control (NCDC) in the year 1995. Prior to this it had existed as AIDS Reference Laboratory in Division of Microbiology (since 1985), one of the first reference centers in India, which initiated surveillance of HIV-infection in the country. In December 2004, it was upgraded as Centre for AIDS & Related Diseases.

The Centre has the following laboratories/units

- i. National Reference Laboratory
- ii. HIV Serology Laboratory
- iii. Quality Control Laboratory
- iv. Immunology Laboratory
- v. STI and Opportunistic Infections Laboratory
- vi. Molecular Virology Laboratory
- vii. Integrated Counselling and Testing Centre (ICTC)
- viii. HIV Test Kits Distribution Unit
- ix. Central Blood Collection Unit



Brief overview of the activities of the Centre

- Serological testing and confirmation of HIV infection for referred samples.
- Counselling and HIV testing for direct walk-in clients
- Panel preparation and delivery of EQAS to SRLs of 4 linked states i.e. Delhi, Haryana, Rajasthan and J&K.
- Quality Control of HIV testing performed by linked state reference laboratories (SRLs) and linked

sentinel surveillance centres in four states viz. Delhi, Haryana, Rajasthan and J&K

- Preparation and characterization of panel for kit evaluation (HIV, HBV & HCV)
- HIV, HBV and HCV test kits evaluation.
- Testing of blood products referred by DCGI for various infectious markers (HIV, HBV and HCV)
- CD4 cell estimation for samples referred from linked ART and PPTCT centers
- Diagnosis of common opportunistic infections i.e. *Cryptosporidium spp.*, *Microsporidium spp.* and *P. jereveci* in stool and sputum respectively.
- Serological diagnosis of syphilis
- Participation in EQAS for CD4 cell estimation conducted by National AIDS Research Institute (NARI), Pune in collaboration with QASI, Canada.
- Participation in EQAS for HIV serology conducted by the National AIDS Research Institute, Pune.
- Participation in EQAS for VDRL/RPR testing conducted by Regional STD Teaching, Training & Research Center, VM Medical college & Safdarjung Hospital, New Delhi.
- Manpower development for
 1. Laboratory investigations for HIV/AIDS
 2. Development of Quality management System in HIV testing laboratories
- Centralized sample collection for different Divisions of NCDC.
- HIV test kits storage facility to DSACS.

Activities performed in various laboratories/units of the Centre

A. Participation in International and National EQAS

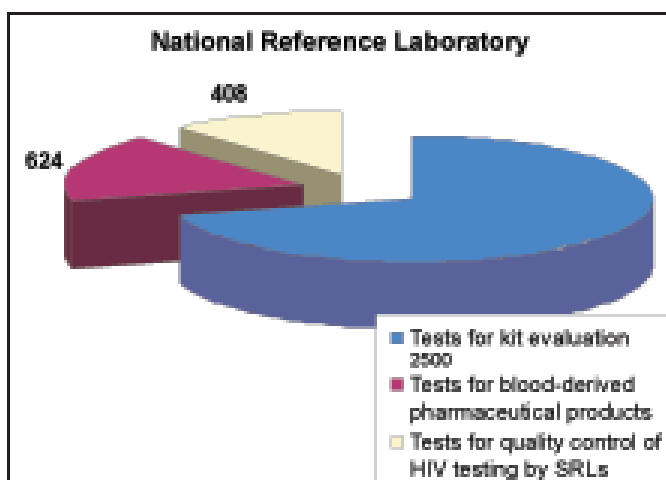
- This Center regularly participates in an EQAS for HIV serology conducted by National AIDS Research Institute, Pune. The Centre has consistently given **100% concordant results** as part of the proficiency testing programme.
- Centre regularly participates in EQAS for CD4 cell estimation conducted by National AIDS Research

Institute, Pune in collaboration with QASI, Canada. The Centre has consistently performed **satisfactorily** during the period.

- This centre regularly participates in External Quality Assessment Scheme (EQAS) for VDRL/ RPR test conducted by Regional STD Teaching, Training & Research Centre, VMM College & Safdarjung Hospital. The centre has consistently given **100% concordant** results for qualitative RPR.

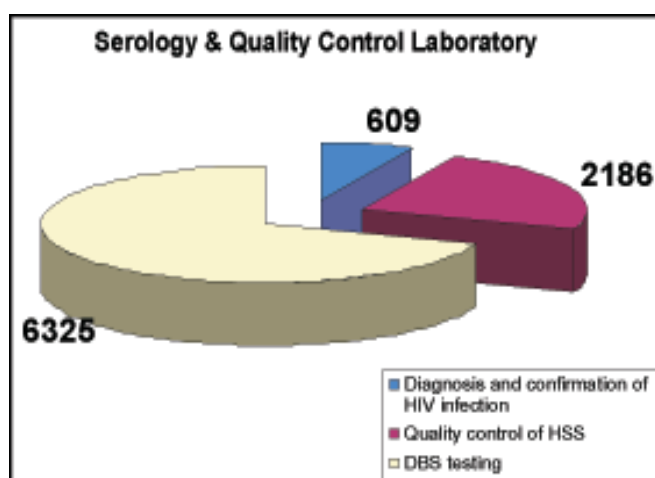
B. National Reference Laboratory

- A total of 52 blood products referred from Drugs Controller General of India (DCGI), Govt. of India have been tested for various infectious markers i.e. HIV, HBV and HCV (a total of 624 tests were performed during the testing of these blood products).
- A total of 05 HIV kits were evaluated at NRL (a total of 2500 tests were performed during the evaluation of these kits).
- A total of 272 samples have been tested for HIV as part of Quality Control of HIV testing performed by linked SRLs (a total of 408 tests performed).
- EQAS programme was conducted twice in this year for all the 13 SRLs and their associated ICTCs
- A panel comprising of 08 members for each of the SRLs and a bulk panel comprising of 04 members for ICTCs was sent after getting them validated from NARI, Pune.
- Report of testing conducted on panel by SRLs was compiled and feedback was given to the respective SRLs.



C. Serology / Quality Control Laboratory

- A total of 609 serum samples were tested for diagnosis and conformation of HIV infection.
- A total of 2186 samples were tested during last round of HIV Sentinel surveillance as part of Quality Control of HIV testing performed linked sentinel surveillance centers in four states viz. Delhi, Haryana, Rajasthan and J&K.
- A total of 6325 Dried Blood Spot (DBS) specimens received from Twenty eight high risk group (HRG) sentinel sites spread across four states namely Jammu & Kashmir, Haryana, Rajasthan & Delhi were tested for anti-HIV antibodies.



D. Immunology Laboratory

- CD4/CD3 cell estimation was performed on 1148 samples referred from anti retroviral treatment (ART) centre, Deen Dayal Upadhyay Hospital, New Delhi and 08 PPTCT centers of Delhi.

E. Molecular Virology Laboratory

- HIV viral load assay by quantitative RT-PCR performed on 200 samples as part of collaborative research project entitled “Comparative study on HIV/AIDS with anti-retroviral and add on Homoeopathy drugs” with Central Council for Research in Homoeopathy, Department of AYUSH, MoH&FW, GoI.

F. Opportunistic Infections/STI Laboratory

- A total of 359 sera samples from suspected cases of Syphilis were tested by RPR card test and TPHA test (A total of 779 tests performed).

- A total of 10 samples were tested for various opportunistic infections.

G. Integrated Counselling & Testing Centre (ICTC)

- A total of 293 direct walk-in-clients were provided pre test counseling while 260 subjects were given post test counselling.

H. Central Blood Collection Unit

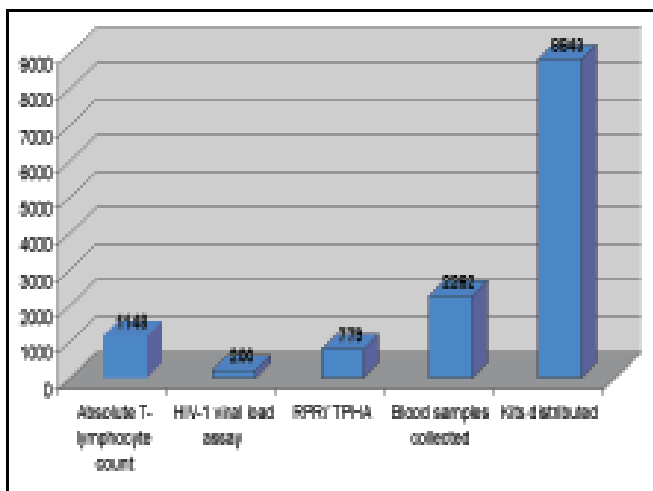
- This unit acts as a central sample collection facility for the institute. During the period a total of 2262 samples were collected and distributed to the respective laboratories for testing.

I. Kits Distribution Unit

- A total of 8843 HIV, HBV and HCV kits were received and distributed by DSACS to various Centers of Delhi.

J. On going Research Projects

1. Collaborative research project “Comparative study on HIV/AIDS with anti retroviral and add on Homoeopathy drugs” with CCRH, New Delhi.



K. Training Activities

1. Organized two days workshop on “External Quality Assessment Scheme (EQAS) for HIV testing” for Officers of the linked State Reference Laboratories from 16th - 17th March 2010.
2. Organized two days workshop on “External Quality Assessment Scheme (EQAS) for HIV testing” for Laboratory Technicians of the linked State

Reference Laboratories from 18th - 19th March 2010.

3. Practical demonstration of “ HIV – Testing Methodologies” to 25 participants from South East Asia Region during the 3 months FETP Programme on 20th August, 2010, at NRL (CA&RD) of NCDC, Delhi.

15.20.7. Epidemiology Division:-

A. Activities of the Division

- Organization and coordination of training courses in Epidemiology to develop trained health manpower. Development of teaching materials such as Modules, Manuals etc. on disease surveillance and outbreak investigation of epidemic prone communicable diseases.
- Investigation of outbreak of diseases of known / unknown etiology and recommend measures for its prevention and control to the States / UTs of the country. Provision of technical support to State government for investigation and control of disease outbreaks.
- Provision of administrative and technical supervision to three branches of the Institute viz., Alwar (Rajasthan), Jagdalpur (Chhattisgarh) and Conoor (Tamil Nadu).
- Provision of technical support to various National Health Programmes in the form of developing guidelines for control, manpower development, evaluation of different components / indicators.
- Assisting the Director for publication of monthly Bulletin “CD Alert”.
- Carry out field research on different aspects of communicable diseases.

B. Outbreaks Investigated/ Rapid Health Assessment.

During the period, officers from the division of Epidemiology carried out investigations of outbreaks in the country and suggested containment measures to the

authorities. Some of the outbreak investigations are as follows:

- Avian Influenza in Murshidabad district of West Bengal.
- Reported wild polio virus cases in Ghaziabad district of Uttar Pradesh on 9th Feb. 2010
- Reported cases of blindness among infants and children in village Shivpur of Gauri bazaar, Deoria district of Uttar Pradesh from 12 – 14 May 2010.
- Dengue outbreak in the districts of Idukki, Kottayam, Pathanamthitta and Thiruvananthapuram in Kerala state from 20 – 24 July 2010 .
- Malaria in Mumbai (Maharashtra) from 29 – 30 July, 2010.
- After cloud burst leading to flash floods causing damage to human life and provided Disease control facilities in Leh from 7- 15 August and from 13- 28 August.
- Reported cases of wild poliovirus in Motihari (East Champaran) District of Bihar from 13-17 October 2010.
- Reported cases of wild poliovirus in Beed district of Maharashtra from 12-25 October 2010.

C. Manpower Development

National Centre for Disease Control (NCDC), Delhi is a WHO Collaborating Center for Epidemiology and training. The division of Epidemiology conducts regular training programmes and numerous other short-term training activities every year. The course curricula of these training programmes are designed and tailor-made to develop the necessary need-based skills for the health professionals. The participants to these courses come from different States/ Union Territories of India. In addition, trainees from some of the neighbouring countries like Bangladesh, Bhutan, Sri Lanka, Myanmar and Nepal also participate in some of the training programmes.

D. The Training Courses Organized

- 15th Regional Field Epidemiology Training Programme (FETP) from 2nd August 2010 to 29th October 2010. A total of 25 participants from 10 countries participated in this training.

- Four week Regional Training Programme on Prevention and Control of Communicable Diseases from 9th November 2010 to 6th December 2010. A total of seven participants from Maldives, Bhutan and Nepal attended the said training.

E. Training/ Meetings & Workshops Attended

- Meeting on Public Health Bill 2009 in the Ministry of Law and Justice at New Delhi on 22.1.10.
- Meeting on South-East Asia Regional conference on Epidemiology organized by WHO and IAE at Hotel Taj, New Delhi from 8 – 10 March 2010.
- Ethical Committee meeting at NCDC on 25.05.2010 to look for the ethical issues of the long projects of MPH Scholars.
- Meeting for revision of Indian Public Health Standards held at NCDC on 5 – 6 May 2010.
- Expert Group Meeting on Firming of Sentinel Surveillance for Vaccine Preventable Diseases under the chairmanship of Dr. L.M. Nath at N.C.D.C., Delhi on 28th June, 2010.
- Sixth World Organ Donation Day on 27 – 28 November 2010 at Vigyan Bhawan, New Delhi

15.20.8. 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 Reference Laboratory for Plague. It has also been recognized by the World Health Organisation 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), Toxoplasmosis, Brucellosis, Leptospirosis, Rickettsiosis, Hydatidosis, Neurocysticercosis and Anthrax.

The Central Animal Facility for breeding & maintenance of different species of laboratory animals is being supervised by the Division.

Major Role and Activities of Division during 2010 are as follows:

A. Referral diagnostic services for the years

	2010 (01.01.2010 ñ 30.11.2010)
Rabies	
(a) Post-mortem diagnosis in animal brain samples by Negri body, FAT, BT	15
(b) Diagnosis in hydrophobia cases by	16
(c) Assessment of antibodies by ELISA test	
(i) Human	617
(ii) Animal	28
Kala-azar	
(a) Parasitological diagnosis by smear examination and culture	96
(b) Serological diagnosis by IFA test	228
Toxoplasma	
Serological and diagnosis by IFA test	390
Brucellosis	
Serological diagnosis by tube agglutination test	76
Rickettsiosis	
Serological diagnosis by Weil Felix test	156
Hydatidosis	
Serological diagnosis by ELISA	32
Arboviral diseases	
Serological diagnosis by IgM ELISA test for Japanese Encephalitis.	
(i) Human sera samples	29
(ii) Human CSF	72
IgM ELISA test for Dengue	742
IgM ELISA test for Chikungunya	292
Plague	
Serological diagnosis by PHA and PHI in rodent Sera	1204
Culture for isolation of Y.pestis from rodent organs	846
Neurocysticercosis	
Serological diagnosis by ELISA	187

Leptospirosis	
Serological diagnosis by ELISA	292
Anthrax	Nil
Viral isolation	
Chikungunya	60
Dengue	280
JE	Nil
Rabies	4
Lymes Disease	Nil
Hanta virus	Nil

B Training courses/Expert group meetings

- Joint Orientation Workshop on Zoonotic infections for medial and veterinary professionals from 17th to 21st May, 2010
- Training Course on laboratory diagnosis of Dengue & Chikungunya for doctors & paramedicals of sentinel hospitals of Delhi from 8th to 11th June 2010.
- Training of core trainers in appropriate animal bite management including intra-dermal inoculation of cell culture anti-rabies vaccine, August, 2010.

C (1). Research projects undertaken

- To study the epidemiological profile of Kala-azar patients in Delhi
- Serological studies in Toxoplasmosis in different Delhi Hospitals.
- Comparative analysis of various serological tests in diagnosis of Toxoplasmosis.
- Surveillance of Plague in different parts of the country.
- Specificity of Passive haemagglutination Test for *Y.pestis*.
- Use of ELISA in serological diagnosis of Neurocysticercosis.

- Molecular characterisation of strains of Leishmania.
- Sero-epidemiology of Brucellosis in high risk population in Delhi
- Standardization of appropriate diagnostic methods for sero-diagnosis and sero-epidemiology of human and animal leptospirosis
- Surveillance of arboviral infections in man and animals
- Isolation of rabies virus in-vitro (Neuroblastoma 2A cell lines).
- Study of prevalence of Rabies in peridomestic and wild rodents.
- Standardization of Rapid Fluorescent Focus Inhibition Test (RFFIT) for rabies antibody titer.
- Isolation of Chikungunya virus in mouse neuroblastoma cell lines.
- Serological studies in clinically suspected cases of hydatid disease
- Sero-epidemiological studies for rickettsial diseases (scrub typhus & Indian tick typhus) in patient with pyrexia of unknown origin.

C (2) Pilot Projects on Prevention and Control of Human Rabies and Control of Leptospirosis.

The Zoonosis division is presently undertaking two projects as “New initiative” under 11th five year plan namely:-

- Pilot Project on Prevention and Control of Human Rabies
- Pilot Project on Control of Leptospirosis.

Pilot project on Prevention and Control of Human Rabies

To prevent human deaths due to rabies a pilot project has been initiated as a ‘New Initiative’ in the 11th Five Year Plan since March 2008, to be completed by March 2010. NICD is the nodal agency to coordinate various activities under the project. It is being carried out in five cities viz: Ahmedabad, Bangaluru, Delhi, Pune & Madurai. The focus of the pilot project is on training of health professionals about rabies and animal bite management, ensuring timely and adequate post-exposure treatment to all animal bite victims, creating awareness in the community regarding rabies, animal bites and its prevention, strengthening laboratory diagnostic capabilities, facilitating introduction of intradermal route of vaccination and sensitizing veterinarians. A total amount of Rs. 3.26 crore has been allocated for the project. An amount of Rs. 1.81 crore was released during 2008-2009 to pilot project cities to carry out various activities.

Pilot Project on Control of Leptospirosis

To prevent morbidity and mortality due to Leptospirosis in human a pilot project has been initiated as a ‘New Initiative’ in the 11th Five Year Plan for two years (March 2008 to March 2010). NCDC is the nodal agency and the three states under the project are Gujarat, Kerala and Tamil Nadu. The focus of the project is on early diagnosis and treatment of Leptospirosis cases, Strengthening of Laboratory and patient management facilities, trained manpower, awareness in the community and inter-sectoral co-ordination. A total amount of Rs. 2.05 crore has been allocated for the project. An amount of Rs 99 Lakhs was released during the year 2008-09. Rs 95.50 lakhs was allocated to pilot project states to carry out various activities. Utilization Certificate and Statement of expenditure of Tamil Nadu (Rs 30.00 Lakhs) and Gujarat (Rs 35.50 lakhs) has been obtained. In the current financial year 2009-10, a sum of Rs. 80.00 Lakhs has been allocated.

15.20.9.Division of Biochemistry & Biotechnology:-

The division is actively involved in disease diagnosis during various epidemics and outbreak, operational research, manpower development, advisory role and other multifarious activities towards prevention and control of a cascade of *epidemic-prone diseases* of larger public health importance.

The division provides laboratory support to epidemiological studies, surveys and outbreaks and also participates in teaching, training, conference, workshops, seminar, symposia and other academic related activities organized by the Institute from time to time. The division conducts applied research activities leading to Ph.D degree from GGSIP University, Delhi. It also imparts project training to M.Sc/B.Tech students from different Universities and Institutes.

The division has two laboratory wings:

A. Biotechnology/ Molecular Biology Wing

- i) *Biotechnology & Molecular Biology Laboratory*
- ii) *Molecular Diagnostics & Gene Cloning Laboratory*

- Molecular Diagnosis & Molecular Epidemiology of over 25 epidemic-prone diseases viz. Polio, Dengue, Hepatitis, HIV, SARS, Avian influenza, Swine flu, Anthrax, MDR TB, Malaria, Kala-azar etc of greater public health importance.

- PCR/RT-PCR & DNA Fingerprinting/Gene Sequencing for ultimate diagnosis of pathogens.
- Tracking the source of infection of emerging/re-emerging diseases.
- Molecular differentiation of strains, detection of virulent/drug resistant forms.
- Genotyping and Sub-typing of strains.
- Maintenance of “Gene Bank” of important disease pathogens.
- Molecular typing of drug resistant *M. tuberculosis*, *S.aureaus* and *K.pneumoniae*.

B. Biochemistry & Environmental Biochemistry Wing

- i) *Clinical Biochemistry & Toxicology Laboratory*
- ii) *National Reference Lab for Iodine Deficiency Disorders*
- Referral services/support to outbreak investigations.
- Analysis of iodine in salt and urine samples in Iodine deficiency disorders (IDD) analysis.
- Thyroid function test (FT3, FT4 & TSH) in referred serum samples.
- Chemical analysis of water for fluoride toxicity,
- Imparts training under NIDDCP for manpower development.

Significant achievements:

- Department of Biotechnology, NCDC has been recognized as Regional Reference Laboratory of NACO for DBS-based HIV-DNA PCR for early infant diagnosis (EID). MOU between NACO and NCDC signed by Director, NCDC on 27.11.2010.
- Four Ph.D students of the division have been awarded Ph.D. Degree from GGSIP University, Delhi.

Research Projects:

- Genomic characterization of circulating strains of Influenza A Virus including H5N1/H1N1.
- Molecular characterization of Dengue virus isolates in the Cpre-M, M and Env/NS1 gene of region of the virus isolates from DF outbreaks.
- Genotyping of HBV Strains from Gujarat HBV outbreak and typing of HCV from Delhi isolates.
- Molecular typing of HIV-1 subtype-C and drug resistance gene in Indian strains.
- Molecular characterization of *M.tuberculosis* in endometrium obtained from infertile women undergoing infertility management.
- Studies on drug resistance gene(s) in *Salmonella* species.
- 7. Characterization of DNA repair enzymes in MDR and XDR *M. tuberculosis* and their role in drug resistance.

- Molecular studies of Chikungunya virus isolates in different parts of the country.
- Monitoring of thyroid hormones in sera from suspected cases and iodine levels in urine and salt samples under NIDDCP.

Outbreak Investigations

Pandemic Influenza A (H1N1) : In view of the major pandemic Influenza A (H1N1) virus outbreak in the country, clinical samples of more than 34285 suspected cases of swine flu were tested at NCDC, Delhi using CDC recommended protocol for Real Time RT-PCR, alongwith PCR and gene sequencing. Till date, over 7966 confirmed cases of Influenza A (H1N1) were reported by NCDC alone. Further regular lab-testing is going on to detect new cases of pandemic Influenza A (H1N1).

15.20.10. Proposed upgradation of NICD to NCDC

NICD, a premier public health institute in the country tasked to meet the challenges of emerging and re-emerging diseases. The upgradation was considered essential as no major upgradation had taken place since long. The institute got its independent appraisal done as advised by the Planning Commission in July, 2007. The Department of Management Studies, IIT Delhi carried out evaluation during November 2007 and submitted its report in May 2008. M/s. HSCC was appointed as Consultant for preparing Detailed Project Report (DPR). They submitted the DPR. Based on the above inputs and also detailed consultations at different levels, including with technical officers, a draft Memo for Expenditure Finance Committee (EFC) was prepared and circulated in December 2009. EFC Memo was finalized after incorporating response from the concerned Ministries/ Departments. The estimated cost includes capital cost for civil and services works, furniture, equipment and additional manpower.

EFC has since recommended the project at a total cost estimates of Rs.382.41 crore. A draft note for Cabinet Committee on Economic Affairs (CCEA) was prepared and sent to MOH&FW for further necessary action. In addition, it has since been decided to engage National Building Construction Corporation (NBCC) as an agency for construction works. Further action to execute an MoU with them is being taken. Simultaneously approvals from local authorities on the site plan and master plan are also being taken.

15.21 LADY READING HEALTH SCHOOL (LRHS), DELHI

Lady Reading Health School, Delhi is established in 1918, is imparting the following courses:-

- I. Diploma in Nursing Education and Administration (Elective in Community Health Nursing).
- II. Certificate Course for Health Workers (Female) under Multipurpose Workers Scheme.
- III. Auxiliary Nurse-cum-Midwife Course under (10+2) Vocational Scheme.

Ram Chand Lohia Infant Welfare Centre, under Lady Reading Health School provides field practice area for Urban Health experience for the students and gives integrated M.C.H. Family Welfare Services to over 39,000 populations.

Staff and students actively participated in 'Pulse Polio Programme', Reproductive Child Health Programme and Perfect Health Mela etc. during the year.

15.22 PASTEUR INSTITUTE OF INDIA (PII) COONOR

The Institute registered as Society under the Societies Registration Act, 1960, started functioning as Pasteur Institute of Southern India, on 6th April 1907 and the Institute took a new birth as the Pasteur Institute of India and started functioning as an autonomous body under the Ministry of Health and Family Welfare, Government of India, New Delhi from the 10th of February, 1977.

Activities undertaken during 2010-11 were:-

- Institute has a Rabies Diagnostic Lab and treatment center to cater the need of the general public.
- Clinical Laboratory service

Present Activities

- Production of DPT vaccine and TCAR vaccine keeping in view of Supply Order received from the Ministry.
- Training Programmes to Post-Graduate and Graduate students.
- Academic programmes like Ph. D. (Microbiology – Part time & Full time) affiliated to Bharathiar

University, Coimbatore and M.D (Microbiology) affiliated to Tamilnadu Dr. M. G. R Medical University, Chennai.

- Breeding of Mice and Guinea pigs for Experimental purpose like Quality Control of DPT and TCAR vaccine and stability study of such vaccines.

Quality Control Division

The Quality Control Division comprises the following divisions.

1. Quality Control Department
2. Rabies Diagnostic Laboratory
3. Sterility Media Section

The following processes were carried out in Quality Control Division.

- a) Quality Control Tests on Bacterial Vaccines (DPT group of vaccines) and Tissue Culture Anti Rabies Vaccines
- b) Sterility media preparation
- c) Rabies Diagnostic Tests

a. Quality Control Tests

IPQC tests for 9 batches BPDT, 7 batches of BPTT and 13 batches of B.P. pool samples were carried out in QCD. Aluminium Phosphate Gel samples (63 Nos) were tested for Aluminium Phosphate content and the Sterility test was conducted for 40 samples. Estimated Thiomersal content for 3 samples and 1 batch of 5 ml tubular glass vials tested for measurement and hydrolytic resistance (Raw Material Testing). Growth Promotion Test was carried out for 1 batch of FTM. Analysed 40 water samples and performed Lf test for 20 samples. The Standard Microbial ATCC Strains and SP2/O Ag 14 Mouse Myeloma cell line have been received and stored.

b. Sterility Media Preparation Division

During this period the Sterility Media section was engaged in the preparation of sterility media to rule out the microbial contamination on various samples and also for the checking of microbes in the classified sterile area in vaccine production. The following table shows the figures of various bacteriological media prepared and utilized.

Nutrient Agar	42 Litres	Prepared in Petri dishes and used for various testings
Sabourauds Agar	32 Litres	Prepared in Petri dishes and used for various testings
Alternate Thioglycollate broth fluid medium	795 Litres	Used in the sterility testings as per I.P.
Soyabean Casein Digest broth	840 Litres	Used in the sterility testings as per I.P.
Fluid Thioglycollate Broth	85 Litres	To use in the sterility test as per I.P.
Nutrient Broth	15 Litres	Used in various tests

c. Rabies Diagnostic Lab

48 sera samples both from Human, Domestic animals were subjected to Rapid Fluorescent Focus Inhibition Test (RFFIT) for the detection and quantification of Rabies Neutralizing Antibodies using Murine Neuroblastoma-2A cells and 96 well flat bottom Micro titre plates. This includes the samples received from our Dispensary from the Patients reporting for consultation and to assess the post vaccination sero conversion for the protection against rabies infection.

Laboratory Animal Division

Number of animal weaned: Mice : 14091 Nos

Guinea pig : 468 Nos

Number of animal supplied to internal users:

Mice : 3386 Nos

Guinea Pig : 159 Nos

Number of Animals Supplied to neighbouring Institute:

Mice : 2350 Nos

Guinea pig : 25 Nos.

Details of grant-in-aid received from the Ministry of Health and Family Welfare, and the expenditure incurred, etc., during 2010-11:

The Ministry of Health and Family Welfare, New Delhi, out of the annual budget of Rs.20.00 Crores has released a total sum of Rs.5.00 Crores to this Institute during the financial year 2010-11 vide the Sanction Order No.V.11011/12/2010/V-I dated 02.08.2010-

As against the Grant-in-Aid amount of '9.91 Crores (i.e., 5.00 crores + 4.91 crores unutilized Grant-in-Aid available as on 01.04.2010), this Institute has already spent a sum of Rs.7.46 crores during the financial year 2010-11 under

Plan scheme upto October, 2010. While releasing the Grant-in-Aid, the Ministry has, vide above letter informed that the normal expenditure of the Plan scheme including the administrative expenses of grantee institutions may be met from the above amount.

Academic activities:

The Industrial visit of Graduate and Post Graduate students of different college/universities were discontinued due to the revival of vaccine production. Two students underwent training for 15 days during May 2010.

The Institute has a well stocked library with 4183 books and 12414 bound volumes, 4 International journals, 13 Indian Journals and WHO publication (Global subscription). The Library is connected with 31 E-books (Print form) and rest of the E-Books are stored in the CD. The Library is connected with internet to utilize the E-journal service to the maximum. Journal Club activities are revived and decided to have two scientific presentation per month.

Quality Assurance

"Quality Assurance" is a wide – ranging concept covering all matters that individually or collectively influence the quality of a product. It is the totality of the arrangements made with the object of enduring that pharmaceutical products are of the quality required for their intended use. Quality Assurance therefore incorporated GMP and other factors, including those outside the scope of this guide such as product design and development.

The following activities were carried out in Quality Assurance Section.

- ❖ Regular monitoring of cold storage of bacterial seed copies (DTP group of vaccine) and issued to concerned section for vaccine production purpose based on their request.

- ❖ Issuing of approved and Authorized copies of BPR to the concerned section (DTP production, formulation & Sterility Media Section) based on their request and reviewed the same when their submitted to quality Assurance Section.
- ❖ Organogram and Responsibilities prepared for all the sections of this organization based on source data from the respective section and issued back the approved copies.
- ❖ SOP revision work carried out for the following sections : Tetanus Section, Diphtheria Section, pertussis Section, gel and mixing section, DTP Containerization and filling section, labeling and packing Section, sterility media Section, Quality control section, Administration section, Account Section, purchase and Stores section, Library, Dispensary, laboratory Animal division, Quality Assurance Section and TCARV section.
- ❖ Preparation of site master file completed.
- ❖ Viable and non viable particle count as part of environmental monitoring carried at Gel and Mixing Section, DTP Filling Section, TC ARV Section, Quality Control Section, Sterility Media and report generated and issued to concern section.
- ❖ Verification of In-house training records and documentation of the reports from all the sections is being carried out periodically.

Revocation of suspension of licence:

The Drugs Controller General (India), Central Licence approving Authority, Drugs Control Division, DGHS, New Delhi has vide Office Memorandum No.X-11026/1/06-D dated 15.01.2008 informed that the Drug Licence has been suspended till such time all the deficiencies pointed out by the Inspection team of NRA Assessment are rectified. Accordingly, the production of all vaccines stopped since January 2008 in this Institute. However, Central Government vide order numbers V.12011/1/2009-VI/DFQC dated 12.02.2010 and F.No.X.11035/2/2010-DFQC dated 26.02.2010 revoked the suspension to the above licence.

DPT production:

To comply with the Ministry's order the production activity initiated and different components like Diphtheria Toxoid, Pertussis component and Tetanus Toxoid are at different

stages of preparation. The tentative schedule of supply is as follows:

January, 2011	50.00 LDs
February, 2011	50.00 LDs
March, 2011	50.00 LDs
April, 2011	50.00 LDs
May, 2011	60.00 LDs
June, 2011	60.00 LDs
TOTAL	320.00 LDs

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

15.23.1 About the Institute

The All India Institute of Physical Medicine and Rehabilitation, Mumbai, established in the year 1955 is an apex Institute in the field of Rehabilitation Medicine under DGHS.

Objectives

To provide need based Medical Rehabilitation Services including provision of Prosthetic & Orthotic appliances for persons with neuro-musculo-skeletal (locomotor) disorders.

- To provide training at Under Graduate and Post Graduate level to all categories of Rehabilitation professionals.
- To conduct research in the field of Physical Medicine and Rehabilitation (P.M.R.).
- To provide and promote community based programmes of Disability Prevention & Rehabilitation for the rural disabled.

15.23.2. The Institute has initiated several steps for commencing new service lines to meet the challenges arising from increasing incidence of disability due to non communicable disorders. Rehabilitation team meets periodically and confer on rehabilitation management in the following special clinics for the PWD.

CP Clinics – 295, Prosthetic & Orthotic Clinics – 208, Case Conference –103, Disability Certificate Evaluation –1585.

Types of disability managing in the Institute.

Birth anomalies affecting musculo-skeletal system, Post Polio Residual Paralysis, Cerebral Palsy, Stroke, Amputee, Spinal Cord Injury, Neuropathies, Myopathies, Occupational Disability.

15.23.3.a Community Based Rehabilitation Projects (CBR): Following project is now completed by this Institute and report is submitted to WHO – A Pilot Project on CBR, in Mumbai urban slum of S-Ward, Bhandup, sponsored by WHO (Country office, India) in collaboration with Municipal Corporation of Greater Mumbai.

15.23.4.b “Mobile Domiciliary Rehabilitation Project” in collaboration with Rotary Club of Mumbai- Worli in H ward of Municipal Corporation of Greater Mumbai. This project is ongoing project for last Five years, which represents exemplary collaboration between Government of India, NGO and MCGM i.e. local self Government.

Highlights: -

- Persons with disability belonging to below poverty line living in the urban slums are targets for intervention under this project. Population living in Santacruz belongs to H (East) ward, Mumbai are being covered by outreach services. Those who require referral services to the Institute are provided transport facilities which are modified to ease the boarding and the alighting of the individual by customized hoist attachable to the entrance.
- Schools children in the locality are periodically screened and provided counseling and intervention services.
- During this period 161 PWD's have been screened in the urban slums.

15.23.4.c Intervention-wise distribution ñ (Under the Project)

Therapeutic intervention Exs Therapy	-	128
Electrotherapy	-	26
Referrals visit to AIIPMR for reconstructive surgeries	-	13
No of Aids & Appliances delivered	-	7

15.23.4.d Post-graduate students were conducted following projects in the Department of P & O.

- Gait Evaluation of a Swing Phase Assist Orhtotic Knee Joint in Patients with Poliomyelitis.
- Performance study of anatomic versus Quadrilateral socket design
- Design and evaluation of multi purpose walker for Elderly people
- A comparative study between supracondylar socket and Anatomical Contoured Socket for Trans-Radial Amputee.

15.23.5. Academic Activities

- The institute had received permission to start MD (Physical Medicine & Rehabilitation) course from the academic year 2010-11 from Ministry of Health & Family Welfare, Government of Maharashtra, Maharashtra University of Health Sciences, Nashik.

Sr. No.	Name of Courses	Intake Capacity
1	MD (Physical Medicine & Rehabilitation)	2

- **Under graduate and post graduate counselling centre** - Institute is recognized as one of the center for UG & PG counseling for admission to MBBS, MD, Dental Courses through Video Conference Mode. Counselling was held during the month of February and March.
- **Diploma in Hearing Languages and Speech Programme** is ongoing training programme on video conference mode. 14 students enrolled for the Academic year 2009-10. All the passed out students have obtained jobs at various organizations.

15.23.6. Implementation of Right to Information Act. (RTI)

Institute is responding to information sought by the applicants. Nominated Central Public Information Officer (CPIO) duly assisted by the committee members provides such information.

15.24 All India Institute of Speech and Hearing (AIISH), Mysore

The All India institute of Speech and Hearing is a pioneer institute in the country imparting professional training, clinical services, conduct of research and education of the public on various communication disorders.

15.24.1. Academic Issues

AIISH has been conducting courses in the area of communication disorders from its inception. The institute which started offering one PG course in 1965 is now offering 14 courses. The student strength has increased from 15 in 1965 to 583 as on today. The admission to all the courses is made on All India basis duly following reservation policies of Government of India.

Besides one certificate course, AIISH conducts 14 Academic courses, which include, three Diploma, UG / PG programs of B.Sc (Speech and Hearing), B.S.Ed (Hearing Impairment), M.Sc (Audiology), M.Sc (Speech-Language Pathology), and M.S.Ed (Hearing Impairment). It has Ph.D and Post-doctoral fellowship programs both in Audiology and Speech Language Pathology.

In addition to the existing two post graduate diploma programs Viz., PG Diploma in Clinical Linguistics for Speech Language Pathologist and Forensic Speech Sciences and Technology, a new Post-graduate Diploma Program in Neuro-Audiology has been introduced at this institute from this academic year 2010-11. On 1st Oct. 2010, this program was launched by Sri V G Talwar, Vice Chancellor, University of Mysore and Dr. Mewasingh, Professor and Dean, Dept. of Psychology, University of Mysore was the guest of honour on this occasion.

DHLS Program:

This Diploma program introduced through quasi distance mode in the year 2007-08 has been continued. At present, the institute has 11 study centers spread over 11 different states covering all the zones in the country, as follows, with AIISH, Mysore as nodal center ;

Jawaharlal Institute of Post-graduate Medical Education and Research (JIPMER), Puducherry, Regional Institute of Medical Sciences (RIMS), Imphal, Manipal, Dr. Ram Manohar Lohia Hospital, New Delhi, All India Institute of Physical Medicine and Rehabilitation (AIIPMR), Haji Ali, Mumbai, Indira Gandhi Medical College, Himachal Pradesh University, Shimla, Himachal Pradesh, Shri Chathrapathi Sahuji Maharaj Medical College, Lucknow University Chowk, Lucknow, Uttar Pradesh, Jawahar Lal Nehru Medical College, Ajmer, Rajasthan, Srirama Chandra Bhanj Medical College, Cuttack, Orissa,

Dr. Rajendra Institute of Medical Sciences, Baritayu, Ranchi, Jharkand, Netaji Subhash Chandra Bose Medical College, Jabalpur, Madhya Pradesh, Jawaharlal Nehru Medical College and Hospital, Mayaganj, Bhagalpur, Bihar.

An annual meet of the All India DHLS Coordinators was held on 1st and 2nd July, 2010 at the institute. The coordinators of the 12 DHLS centers from all over India participated in the meeting along with their counterparts from AIISH.

Courses conducted and admission details:

The admission details for different courses conducted at the institute for the academic year 2010-11 are as follows:

Sl No.	Name of the course	Nos.
1	Diploma in Hearing Aid and Earmold Technology	04
2	Diploma in Hearing, Language and Speech (DHLS) at AIISH, Mysore	06
3	DHLS at other 11 study centres (through quasi distance mode)	182
4	DTYHI (Diploma in Training Young Hearing Impaired)	08
5	BASLP (Bachelors in Audiology & Speech Language Pathology) I Year - 61 II Year - 62 III Year - 44 Internship - 36	203
6	B.S.Ed (Hearing Impairment)	03
7	M.S.Ed (Hearing Impairment)	03
8	M.Sc (Speech-Language Pathology) I Year 36 II Year 35	71
9	M.Sc (Audiology) I Year 36 II Year 35	71
10	Ph.D	15
11	Post-doctoral fellowship	01
12	P.G. Diploma in Forensic Speech Sciences & Technology (PGDFSST)	04
13	P.G. Diploma in Clinical Linguistic for Speech Language Pathologists (PGDCLSLP)	03
14	P.G Diploma in Neuro Audiology(PGDNA)	08
Total		583

Short-term Training Program

Short term training programs were conducted on the following topics:

- a. Assessment of Communication Disorders on 20.4.2010
- b. Identification of language problems in school children on 6.5.2010, 10.6.2010 and 16.7.2010
- c. Speech and language disorders on 9.6.2010

Workshops/Seminars/Symposia/Orientation Programs

Ten workshops/orientation programs were conducted in these seven months on the following topics:

- a. A program on Communication Disorders: Early Identification and Prevention held on 18.5.2010 and 19.5.2010 to Social workers and Health workers.
- b. A program on practical observation of pre-school training for children with communication disorders was held on 4.6.2010 to 30.6.2010 to 14 trainees of C4D2 batch.
- c. Orientation regarding activities of speech language sciences and its activities to nurses on 14.6.10
- d. An orientation program on Speech, Hearing and Language Disorders and Training on Survey for Early Identification and Prevention Communication Disorders held on 2.9.2010 to AHSA Workers of Gumballi and Volunteers of Home Makers from Hullahalli and Akkihebbal.
- e. A workshop on 'Fine tuning of digital hearing aids – Individuals with hearing impairment' was conducted on 2.9.2010.
- f. Workshop on "Preparing young children with Autism to learn language" on 10.9.2010
- g. Orientation program on Professional Voice Care – causes and management of voice disorders to students BGS Apollo Hospital on 14.9.2010.

- h. A program on 'Staff enrichment on application MATLAB' held on 15.9.2010.
- i. An orientation program on use of Hearing Aid analyzers and tester by Special Educator.

Library and Information Center

A total of 210 books were procured during the year making the total number of books to 17045. Besides this, 69 Journals are being subscribed, out of which 13 are e-journals.

15.24.2. Research:

Five research projects with extra mural funding (WHO, DST, CIIL, SBMT and Society of Bio Medical Technology) and 6 projects from AIISH Research Fund are in progress. Additionally, 36 research projects were approved under AIISH Research Fund during the report period.

A collaborative project on 'Design and Development of Speech Enhancer with Vellore Institute of Technology sponsored by Society for Biomedical Technology, Bangalore is being carried out at the institute.

Publications / Releases:

29th Volume (No.1 2010) of Journal of All India Institute of Speech and Hearing (JAIISH) was released on 9th August 2010 on the 45th Anniversary Day of the institute.

Proceedings of the International Symposium on "Bilingual Aphasia", Seminar on "Cochlear Dead Regions" and "Auditory Dys-Synchrony" were released during the period under report. A book on "Train Your Child Level I" was also released for Care-givers of children with hearing impairment during the period

15.24.3. Clinical Services:

The institute continued to provide clinical services for clients with communication disorders through the Departments of Audiology and Clinical Services with its specialized clinical units and Department of Prevention of Communication disorders. A total of 11,912 new clients and 19,176 repeat clients registered during the period from 1.4.2010 to 31.10.2010.

Details of clinical services provided at AIISH, Mysore	Total
Hearing Evaluation	6408
Hearing Aid Trial	4994
Ear Mould Impression	1902
Clients provided with Speech, Language Therapy	4227
Clinical Psychology	3174
ENT cases evaluated at AIISH and KR Hospital	26201
Major and Minor operations conducted	183
Physiotherapy	489
Occupational Therapy	516
Special Clinics	
Augmentative and Alternative Communication Unit:	
Evaluation	11
Therapy	108
Autism Spectrum Disorders Unit:	
Evaluation	103
Therapy	178
Craniofacial Unit	45
Listening Training Unit	877
Professional Voice Care centre	01
Tele-diagnosis and Tele-Rehabilitation to DHLS study centers	
No. of Clients provided Tele-diagnosis and Tele-intervention	16
Clients attended Educational Guidance	126
Preschool Training Center	
Total No. of groups	42
Total No. of languages	04
Total No. of children	1224
Hearing Aid dispensing:	
Under ADIP Scheme of Ministry of Social Justice and Empowerment, Govt. of India	3055
Issued at Camps	257
Issued under AIISH Hearing aid dispensing scheme	596
Hearing Aid Repaired	612

Outreach Services

I. Hearing Screening: Hearing Screening at the Hospitals at Mysore, wherein new born and infant hearing screening was carried out on 7577 babies during the period from 1.4.2010 to 31.10.2010. The babies were referred for confirmation of hearing loss, if any, to AIISH. The babies with confirmed hearing loss were taken for management intervention.

II. Outreach Service Centers: All India Institute of Speech and Hearing has established Outreach Service centers at Akkihebbal, Hullahalli and Gumballi, wherein a speech and hearing unit has been established at the Public Health Centers. Between 1st April 2010 and 31.10.2010, 161 cases were seen at Akkihebbal, 274 at Hullahalli and 192 at Gumballi villages.

III. Camps

Five camps were conducted in Karnataka and Kerala where 1242 were examined, 112 hearing aids were issued and 164 certificates were provided.

IV. AIISH-SSA Project

A collaborative project with Govt. of Karnataka under Sarva Shikshana Abhiyaan was continued and around 95 teachers underwent training in the detection of academic difficulties of school children in the report period.

Two New Special units were launched namely:

1. Fluency Unit.

On 9th August 2010, Prof. V N Rajashekar Pillai, Vice-Chancellor, Indira Gandhi National Open University (IGNOU), New Delhi, inaugurated the Fluency Unit.

Fluency unit cater to the academic, clinical and research and public education needs. Clients with stuttering, neurogenic stuttering, cluttering, and fast rate of speech are offered clinical services. Approximately 40 to 50 persons with stuttering avail the therapeutic services and 250 number of therapy sessions are provided in a month in this unit.

2. Vertigo Clinic

Vertigo Clinic was inaugurated in the Department of ENT at the institute on 22.10.2010.

This clinic was launched to benefit the patients with peripheral and central vertigo problems. The Multidisciplinary team comprises of ENT surgeons,

Neurologists, Audiologists and Nurses. The facilities available in the Vertigo Clinic are Microscopic examination of the ear, Electro Nystagmography, Vestibulo Spinal tests, neurological evaluation, Audiological tests for Cochlear and Retrocochlear Pathology.

15.24.4. Public Education

(i) Public Lecture Series: The monthly lecture series was continued and seven lectures on various topics related to communication disorders were conducted on the following topics during the period.

- a. Public lecture on identification of hearing problems in school going children on 24.4.2010.
- b. Physiotherapeutic Aspects in Communication disorders on 29.5.2010.
- c. Inclusive Education for Children with hearing impairment on 26.6.2010.
- d. Early Identification and Intervention of Hearing Impairment on 31.7.2010.
- e. Stuttering in Children on 28.8.2010.
- f. Hearing Aids – Care and Maintenance on 25.9.2010.
- g. Augmentative and Alternative Communication on 30.10.2010.

Inaugurations:

‘Bodhi’, the New Mens Hostel was and this new hostel situated at Panchavati Campus of the institute accommodates 94 number of students.

‘Ashoka’, the newly constructed International Guest House with 15 number of guest faculty suites recently started with a total living area of 63 sq. mtrs. and parking space with a lounge.

Financial Achievements: Funds from the Ministry

(₹ in crores)

	Grants for the year 2010-11	Grants received April-October 2010	Internal Revenue
Plan	21.85	9.70	
Non-Plan	8.00	5.64	1.67

15.25. CENTRAL INSTITUTE OF PSYCHIATRY, KANKE, RANCHI

The Central Institute of Psychiatry, Ranchi covers a sprawling area of about 210 acres and has the bed capacity of 643. All beds in this hospital are paying. Some beds are reserved for the patients sponsored by the Central Government, Railways, Coal India and some for the state Governments. There are 17 Wards, Nine wards for the Male and six for the Female patients, one Family Unit and one Emergency Ward. Each ward is at some distance from other wards. Each ward has well laid out roads and lawns around it. Male and Female sections are separated by a high wall. All the wards are named after eminent psychiatrists. It may be worth noting that unlike other mental hospitals, CIP, Ranchi has never been a custodial care facility. It has always been an open hospital and the patients are never confined to rooms. They are free to roam within the hospital.

Apart from drug therapy various psychotherapies, behavior therapy, group therapy and family therapy are routinely employed. A milieu therapy approach exists where patients participate in running the ward and help in looking after other patients. Regular physical exercise, outdoor and indoor games and Yoga are available for the patients. A very well stacked library having books in English, Hindi, Urdu and Bengali as well as a number of newspapers and magazines is freely accessible to the patients.

Main objectives of CIP have been Patient care, Manpower development and Research for which the institute has the facilities of:

15.25.1. Adult Inpatient Services: The Inpatient Psychiatry Unit provides services for acutely ill psychiatric patients, including those requiring extensive care for concurrent medical disorders. The entire gambit of mental health expertise is available for the care of in-patients.

15.25.2. Patient OPD- Attendance, Admission and Discharge: During the period from January -October 2010 the total number of OPD cases was **55334** (20478 New and 34856 Old) [*including Psychiatric Cases (Adult & Child), Staff OPD, Clinical Psychiatry, Extension Clinics, Skin Clinics & School Mental Health Programme, Epilepsy Camps*]. New Cases (Psychiatry) were **9730** (6647 Male, 3083 Female); old cases were **32900** (23669 Male, 9231 Female); **3864** (3045 Male, 805 Female) patients were admitted, **3822**

(3015 Male, 807 Female) discharged and only **Three (03)** deaths occurred during the period. The average bed occupancy rate was 87%.

15.25.3. Special Clinics: Special clinics include chronic Schizophrenia Clinic, Skin & Sex Clinic, Neurology Clinic, Sleep Clinic, Epilepsy Clinic, Staff OPD, Headache Clinic, De-addiction Clinic, Child Guidance Clinic; Mood Clinic, OCD Clinic etc. are also run here. Attendance of patients in Special Clinics during the period from January -October 2010 was **16413** which is given below:

Clinics	No. of Patients
Epilepsy clinic	2435
Emergency service	2268
Sleep clinic	58
Skin clinic	2102
Headache clinic	169
Staff OPD	7534
Mood clinic	601
De-addiction	531
Chr. Schiz. Clinic	456
Ocd clinic	212
Neurology	40
Sex clinic	7
Total	16413

15.25.4. Centre for Addiction Psychiatry: This is a new and modern De-addiction Center with capacity of 30 patient beds for the treatment of the person suffering from problems of alcohol & drugs addiction. It is also the nodal Center for the eastern India for the manpower training and research in the field of alcohol and drugs abuse. During the period from January -October 2010, **531** patients suffering from the problem of Alcohol and Drug addiction were seen in the OPD in De-addiction Clinic, **539** patients were admitted, **526** discharged.

15.25.5. Centre for Child & Adolescent Psychiatry: Child psychiatry has been an important discipline at CIP, Ranchi. A child guidance clinic was started in 1950 and an independent 50-bed child psychiatry unit in 1975. This unit also imparts training to resident doctors and postgraduate students in the field of child and adolescent

mental health. It caters the needs of grossly psychotic children, children with development disorders and mental retardation. The parents are required to stay with their children for the duration of the treatment. During the period from January -October 2010, **5150** (New-1286, Follow-up-3864) patients attended OPD for treatment.

15.25.6. Department of Clinical Psychology

The Clinical Psychology Department at the Central Institute of Psychiatry was established in 1948 and is the oldest independent Department of Clinical Psychology in India. Over a period of years the Department has gained excellence in the field of teaching, training, research and clinical services.

15.25.7. Teaching and Training

Initially, the Department was involved in the patient care only; however, later in the year 1962 a teaching course in Clinical Psychology was also started. The course was known as Diploma in Medical and Social Psychology (now known as M.Phil in Medical and Social Psychology). In 1972 Ph.D. in Clinical Psychology was started. Presently, there are 18 seats in M.Phil. (M&SP) and 04 seats are in Ph.D. (Clinical Psychology). Our faculty includes 2 assistant professor, 2 assistant psychologists and 1 lab assistant.

15.25.8. Clinical Services

The Department provides non-pharmacological management for the patients of wide ranging psychiatric problems with the help of psychotherapy, counseling, group meetings, psycho-education, psycho-diagnostic testing, intelligence testing and so forth. Apart from the patients coming to the hospital, the Department is also involved in providing services at various extension clinics as well as schools. There is a separate out-patient unit of the Department. The out-patient unit either gets referral from the general OPD of the hospital or people can directly come and seek help for their psychological problems. The psychosocial OPD, as it is called, caters to the needs of those patients who suffer from minor psychological problems and who can be below exclusively by psychological methods viz counseling, behaviour therapy or biofeedback or relaxation therapy.

15.25.9. Psychology Laboratory

The clinical psychology lab was established for the first time in India in 1949. It has various psychological tests, rating scales, instruments and apparatus which aid in the

management of the patients. The lab has these tests designed for use with both children as well as adult population. There are in total 13 equipments and apparatuses, 43 tests for the assessment of cognitive functions, 19 tests for the assessment of personality which includes projective and objective tests and there are 44 various scales. These tests are for use with both childhood as well as adult population. There are also 66 new tests which the lab has acquired which assess various domains of personality and cognition.

Departmental Activities

Apart from management of the patients, the Department holds weekly academic exercises in the form of departmental seminars and psychotherapy meetings. Further, regular classes are taken for M.Phil and Ph.D. students as well as for the students of other disciplines such as Psychiatry, Psychiatric Social Work and Nursing.

Research Activities

Research is an integral part of the Department. Faculty members and the students of the Department are involved in research activities on a regular basis. Major focus of the current research is psychological assessment, cognitive neurosciences and psychotherapy. Research papers have been published in various international and national journals. The Department is growing every year and is contributing significantly to the field of mental health.

15.25.10. Department of Psychiatric Social Work

The Department of psychiatric social work came into existence in the decade of 1950s although the family psychiatry can be dated back to 1922 when patients were admitted in specially made cottages with their family members for multi-dimensional treatment. Training of the students and professionals who were aspiring to be trained "psychiatric social worker" started in the year 1970. Since then various achievements have been attained by this Department. Training of psychiatric social work started as the "*Diploma in Psychiatric Social Work (DPSW)*" firstly and in the year 1985 it was upgraded to M.Phil. Presently, 12 seats are available for M. Phil trainees.

15.25.11. Outreach Program: Extension Clinics include General Psychiatry Clinic at West Bokaro, Hazaribagh and CCL Gandhi Nagar Clinic, Ranchi and Epilepsy Clinic at Deepshikha, Ranchi. These Units are conducting these programmes regularly. We also arrange regular Camps for awareness program, workshop with teachers, parents

etc. School mental health programme also runs in two schools details of which have been shared in the table below:

Total No. of Patients

Clinics	No of Patients
West Bokaro	328
CCL Gandhi Nagar	74
Hazaribagh Clinic	731
Deepshikha Epilepsy Clinic	173
Deepshika, ICD & H	212
Epilepsy Camp Baripada, Orissa	84
Total	1602

15.25.12. Centre for Cognitive Neurosciences

The Centre for Cognitive Neurosciences had its humble beginning as Electro-encephalography (EEG) Department in 1948 with 6 channels and then 8 channels EEG equipment. The Department was rechristened as Psychophysiology and Neurophysiology Labs in 1995 and recently as the Centre for Cognitive Neurosciences; each new name representing the phenomenal growth that this department has witnessed. Presently the centre has two sections; a clinical section and a research section. The clinical section contains a 21 channels paper EEG, 32 channels QEEG and 40 channels video EEG. The research section includes Dense array EEG acquisition systems (64, 128 and 192 channels), ERP acquisition units (40 channels), a polysomnography unit (40 channels) and a repetitive Transcranial Magnetic Stimulation (rTMS) unit. The centre has acquired advanced signal processing softwares like ASA, BESA, Neuroscan, Curry, Matlab and Mathematica.

The Centre runs a weekly Epilepsy Clinic in the Outpatient Department of the institute (Thursdays) and at Deepshikha, Ranchi (Wednesdays).

25.15.13 Department of Pathology and Biochemistry

Department of Pathology and Biochemistry performs number of pathological test in clinical pathology, microbiology, bacteriology and biochemistry, serology and immunology. The Department has innumerable

pathological specimens of rare cerebral disease. This Department is also engaged in high level of research.

15.25.14. Emergency Services: A 24 hours emergency service is available in the OPD of the institute with bed strength of 16 patients (8 for male and 8 for female patients).

15.25.15. 24 Hours Services of Telephonic Helpline & E-Mail Helpline: During January – October 2010, 761 helpline calls and 124 e-mails were attended.

15.25.16. Training Programme: In the training program, Case conference, Seminar, journal clubs were regularly held every week. Seminar-27 (1284 participants), Case Conference-29 (1283 participants), Journal Club-20 (626 participants) Visiting Nursing Students from other centers (402 participants).

15.25.17. Medical Library

In accordance with the objectives of the institute to become a “Centre of Excellence Medical Library is to provide the information services and access to bibliographic and full text digital and printed resources in the field of Mental Health and Allied Sciences to the scholarly and informational needs to the institute community. It also support the educational and research programme of the institute by providing physical and intellectual access to information, consistent with the present and anticipated educational and research programmes of the institute.

Library provide a wide range of current , accurate and authoritative information from a vast selection of print and electronic resources using State of the art technology at it’s newly constructed three storied building. The library collection focused primarily on Psychiatry, Psychology, Neurosciences, Psychiatric Social Work and Psychiatric Nursing. The collection of the library which includes Books, Journals, Weekly Magazines, Newspapers, VHS, VCDs, Reports, Dissertation, Thesis, WHO publication, Microfilms, Atlas and electronic databases is regarded one of the richest collection of its kind in the country. It has some rarest collection of reference materials dating back from pre independent (1910) and onwards. It has collection of nearly 55,000 books, bound volumes of journals and WHO publication. Nearly 2000 books from different world wide publishers have been added every year to make the library collection richer. The library currently subscribes 318 print journals and has access of

almost more than 2000 e-journals by using different platform such as Science Direct, Wiley's Online Library, OvidSP, Cambridge Online, Sage Online, Springer link etc. Library is also a member of the ERMED – India consortia which is run by National Medical Library, New Delhi. ERMED provides full text access of almost 1800 journals on its platform. It is no exaggeration to state that the CIP Library is the largest and finest of its kind in the country.

The library has been using the KOHA an Integrated Library Management Software package for library housekeeping operations. All the holdings of the library have been indexed and users can search the database by using KOHA OPAC online from any computer in the institute's LAN and from anywhere of the world by using Web OPAC as usual. All the holdings of the library are equipped with RFID Tags which help the users in Self Issue and renewal of the library holdings by using Bio-Metric system based Self Issue KIOSK and also help in finding any books on the self by using Handheld Reader. RFID tags also helps in library's self management and security of the library holdings.

Apart from the above library offers Reference Services, Photocopying, User Guiding Services, Display of New Arrivals, Document Delivery Service, Current Awareness Service etc. Library is well connected with institute's LAN and has 10 Mbps Leased Line connectivity.

Library is equipped with **Wi-Fi** to provide Internet access to it's users on their own Laptops. Anyone can contact the library for any type of information needed in their academic/research work by using the e-mail address ciplibrary@hotmail.com.

15.25.18. Homoeopathy Interventional Research Project in CIP

On 17 September 2007 CIP launched two Homoeopathic interventional Research Projects entitled "*To Assess the Feasibility of Add on Homeopathic Therapeutic Intervention in Schizophrenia: an Open Trial*" and "*To Assess the Feasibility of Add on Homeopathic Therapeutic Intervention in Depression: an Open Trial*". These projects are funded by Central Council for Research in Homoeopathy, Ministry of Health and Family Welfare New Delhi. The launch of this project widened the horizon in the mental health intervention. This project gave an impetus to the general belief toward alternative therapy and thus opened new avenues for the treatment of mental health problems.

The joint venture of homeopathy and modern approach to mental health generated new knowledge that is useful for the field of mental health.

15.25.19. The 36th Annual Conference of Indian Psychiatric Society, Eastern Zone Branch (CEZIPS 2010) & World Mental Health Day

The 36th Annual Conference of Indian Psychiatric Society, Eastern Zonal Branch (CEZIPS 2010) was held at Central Institute of Psychiatry (CIP) on 8th and 9th October, 2010 which was jointly organized by Central Institute of Psychiatry and Indian Psychiatric Society, Jharkhand State Branch. The theme of the conference was "Child and Adolescent Mental Health". Over 350 delegates and accompanying persons were registered who attended the conference.

15.25.20. Major Achievement

- Centre for Cognitive Neurosciences Block, Central Store Building, 16 nos. of Type IV and 8 nos. of Type V residential quarters are at the verge of completion and will be handed over to CIP shortly.
- Construction of new boundary wall in place of old damaged boundary wall is in progress.
- 50 candidates out of total 79 seats were admitted for the various courses conducted by CIP, Ranchi in the session starting from 1st May, 2010
- Digital X-ray, Haematology Analyzer, Bio Chemistry auto analyzer, Coils for Magnetic Stimulator Machine, Radio Frequency identification system for Books & Journals for Medical Library, Digitization of Medical Records, EEG Records, Office Records, Fiber-Optic networking of the Campus and heavy duty switches for Campus Server have been added to the Institute.
- Installation of 380 KVA DG set, 400 KVA transformer & underground electric cabling and development of lawns in the hospital.
- Chapatti making machine, Flour kneading machine, Steam cooking system, 150 ltrs. cooker, Three burner and Two burner Gas Chulha, Potato Piller and Veg. cutting machine have been added to the kitchen.

15.25.21. Clinical & Research

Marked increase in the number of cases attending OPD, inpatient admission and sharp decline in mortality rates, expansion of community outreach programme, increase in the number of research paper publication, publication

of research journal- Indian Journal of Social Psychiatry (Official Journal of Indian Association of Social Psychiatry), increase in the number of students admitted to various courses, conversion of microfilms into digital formats.

15.5.22. Budgetary Provision

(Rs. in thousand)

FINANCIAL YEAR	PLAN				NON-PLAN			
	BUDGET ESTIMATE	REVISED ESTIMATE	FINAL ESTIMATE	EXPENDITURE	BUDGET ESTIMATE	REVISED ESTIMATE	FINAL ESTIMATE	EXPENDITURE
2009-10								
Revenue	100000	72300	74092	73858	262000	266600	273700	272537
Capital	50000	144100	139600	135800	—	—	—	—
Total	150000	216400	216392	209658	262000	266600	273700	272537
2010-11 (Up to Oct. 10)								
Revenue	120000	—	—	53767	241800	—	—	153351
Capital	152500	—	—	103500	—	—	—	—
Total	272500	—	—	157267	241800	—	—	153351

15.25.23. Workshop on the Amendments to the Mental Health Act.

A workshop was held in the Central Institute of Psychiatry on 17th July, 2010 to discuss the proposed amendments to the Mental Health Act, 1987. This workshop was a

part of several regional workshops organized by the Ministry of Health and Family Welfare across the country to gather opinion regarding the proposed amendments to the Act. The Central Institute of Psychiatry was the venue for eastern India.

15.26. CENTRAL RESEARCH INSTITUTE (CRI) KASAULI

Central Research 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. Govt. of India. The Institute has a huge complex which 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 vaccines/sera and research activities. Central Research Institute is engaged in production of (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. (v) Quality Control of immunologicals.

Staff Strength:

There are 725 sanctioned posts in CRI-Kasauli. The number of sanction posts of group A,B, C and D are 50,32,213 and 430 respectively. The total staff in – Position is 577. The staff in-position of group A,B,Cand D is 16,24,186 and 351 respectively. Total Vacant posts

are 148. The Vacant position of group A,B,Cand D are 34,8,27and 79 respectively.

Budget Provisions 2010-11

(Rs. in Lakh)

Budget Provisions	Plan	Non Plan	Total
BE 2010-11	1200.00	2812.00	4012.00
Expenditure			
Oct, 2010	234.00	1313.00	1547.00
RE 2010-11	3232.00	2589.00	5821.00
BE 2011-12	4568.00	3312.00	7880.00

Manufacturing Demand and Supply of Vaccine and anti-sera :

Since its inception the institute has developed into a premier institute in research and production of a number immunobiologicals. The order suspending the production license was revoked by the Govt. of India in February, 2010. Production has been restarted and work on upgrading all the facilities to meet cGMP standards is underway. The quantity of vaccines and anti-sera supplied during the last three years is given in the table No. 1.

Table No.1 Details of vaccine supplied during the period:-

(Quantity in lakh of doses)

Sl. No.	Vaccines and Anti Sera	Installed Capacity	2008-2009 Demand	2008-2009 Supply	2009-2010 Demand	2009-2010 Supply	2010-2011 Demand	2010-2011 Supply	Balance Stock as on (31.10.2010)
1	DPT(Doses)	312	260	206.23	00	00	53.50	53.50	16.84
2	DT(Doses)	144	140	37.49	00	00	0.006	00	00
3	TT(Doses)	264	400	116.08	300.00	0.33	1.94	3.98	0.0018
4	Typhoid (AKD) (Doses)	20	20	1.96	1.42	00	00	00	00
5	J.E. (doses)	Not Definite	4.00	00	00	00	0.0011	00	2.91
6	Yellow Fever (Doses)	0.40	1.32	0.84	1.07	1.06	0.75	0.75	0.89
Quantity in lakh of ml									
7	ARS	2.00	0.38	0.38	0.1	00	1.52	0.22	0.0125
8	ASVS	3.00	0.04	0.04	0.0006	00	1.20	1.20	0.53
9	DATS(Lakh Vials)	0.10	00	00	0.01	00	0.03734	0.00054	0.00013
10	NHS	As per Demand	00	00	0.279	0.253	0.035	0.035	0.05
11	Diag. AG.	2.50	0.243	0.243	0.714	0.714	0.443	0.443	0.07

Other activities of the institute:

In addition to manufacturing of the vaccine and sera the Institute is engaged in a large number of the activities such as :

- Quality Assurance and Quality control
- National Salmonella and Escherichia Coli Center.
- National influenza surveillance center
- Rabies research center
- National Polio laboratory for surveillance
- Experimental animal House
- Medical treatment Centre & Diagnostic section
- Academic & Research Activities

For developing DPT group of vaccine manufacturing facility at CRI, Kasauli, Ministry has engaged M/s HLL Life care Limited, a Public Sector Enterprises under the Ministry as Project management Consultant and to utilize the services of M/s NNE Pharmaplan as their Detailed Engineering Consultant for revival of CRI Kasauli. Conceptual layout plan of the project has been approved by WHO and DCG (I) and further activities are also being undertaken. The project is likely to be completed by May-June, 2011.

15.27. VALLABHBHAI PATEL CHEST INSTITUTE (VPCI), UNIVERSITY OF DELHI, DELHI

Brief Background

The Vallabhbhai Patel Chest Institute (VPCI) is a unique post graduate medical institution devoted to the study of chest diseases. It is a University of Delhi maintained institution under ordinance XX (ii). The Institute is administered by a Governing Body constituted by Executive Council of the University and is funded entirely by Grants-in-Aid from the Ministry of Health and Family Welfare, Government of India. The Institute fulfills the national need for providing relief to large number of patients in the community suffering from chest diseases. It has eminently discharged its role and has earned a unique place in the field of Chest Medicine.

Main Objectives

The main objectives of VPCI are to conduct research on basic and clinical aspects of Chest Medicine, to train post

graduates (**D.T.C.D., M.D., Ph.D.**) in Pulmonary Medicine and allied subjects, to develop new diagnostic technology and disseminate scientific knowledge related to Chest Medicine to other institutions in the country and to provide specialized clinical and investigative services to patients.

Patient Management Services

The Viswanathan Chest Hospital (VCH), is the hospital wing of the Institute which provides the patient management services with the following facilities; Outpatient Department, Inpatient Facility with 60 beds, 24 hours Respiratory Emergency, 8 bedded Respiratory Intensive Care Unit (with facilities of 7 ventilators), Sleep Laboratory, Tobacco Cessation Clinic, National Yoga Therapy Centre, Cardio-pulmonary Rehabilitation Clinic, Picture Archiving and Communication Systems (PACS), Medical Records Section, Oxygen Plant.

During the year 2009-10 the VCH enrolled 10426 new patients, 54386 old patients. A total number of 3956 patients were admitted as Indoor cases. A total number of 19531 were provided 24 hours Respiratory Emergency Services and 429 patients were provided ventilator (invasive and non-invasive) treatment in ICU. A number of specialized investigations done were as follows; Pulmonary function tests: 20444, Arterial blood gases: 2046, Bronchoscopy: 261, Bronchoalveolar lavage: 28, CT scans: 2462, Ultrasound examinations: 569, X-rays: 20834, Electrocardiograms: 5919, Polysomnograms: 67, HIV testing: 218, Serum IgE tests: 622, Skin tests: 758, Clinical biochemistry: 26742.

During the year under review, the Institute has played a vital role in conducting investigations for the pandemic influenza H1N1 virus as per the directive of the Government of India.

Research Activities

The Institute continued its thirst for research in Respiratory Diseases and allied sciences. These research projects were sponsored by different agencies of Government of India, World Health Organization, etc. The notable contributions during the period on research include: Development of novel therapeutics based upon natural products from Indian Medicinal plants, Pulmonary function in normal children in Delhi region: development of reference standards for spirometry, Heart rate variability in chronic obstructive pulmonary disease: associations with systemic inflammation and clinical implications,

Systemic mycoses in HIV positive patients: a study of species spectrum of etiologic agents, antifungal susceptibility pattern and epidemiologic aspects, Functional characterisation of *lspA* gene of *Mycobacterium tuberculosis*: cloning, expression and its role during pathogenesis, Prospects for the development of anti-tubercular drugs based on transacetylase function of glutamine synthase, Studies on the possible mechanisms involved in the effects of UNIM-352, a polyherbal, anti-asthmatic unani preparation in experimental animals, Brain nitric oxide and high altitude stress, To study the prevalence of obstructive sleep apnoea amongst middle aged chronic obstructive airway disease (COPD and asthma) patients by a home based sleep study and atopy, and Multi-site epidemiological and virological monitoring of human influenza virus surveillance network in India –Phase II.

Post Graduate Teaching and Training

A total of 9 MD students for academic year 2008-11 and 10 DTCD students for academic year 2008-10 were enrolled. In addition, 48 students were given training under the MD and DTCD programmes. Sixteen research scholars pursued their PhD programmes. As a part of imparting updated knowledge regarding various developments in respiratory diseases, the Institute had conducted 9th CME course on, “Pneumonia” on 13th, February 2010 and the 35th Workshop on “Respiratory Allergy: Diagnosis and Management”, Delhi on March 8th-12th March 2010. Training in Behavioural Counselling – Tobacco Cessation on 22nd July 2010.

An important milestone during this year is the approval to start DM course in Pulmonary and Critical Care Medicine with an intake of two students every year by the University of Delhi.

Conferences/ Workshops during the year

“National Symposium on Sleep Apnea: An Update”, held on 5th - 6th April 2010 on the occasion of the 61st Foundation Day Celebrations of the VPCI, Delhi.

The 12th “Prof. R. Viswanathan-VPCI Oration” was delivered by Prof. M.K. Bhan, Secretary, Government of India, Department of Biotechnology, New Delhi, on 6th April 2010.

The 6th “Prof. A.S. Paintal Memorial Oration” was delivered by Prof. Chulani Tissa Kappagoda, Professor of Medicine, University of California, Davis, U.S.A., on 24th September 2010.

Publication

The Institute has been publishing a quarterly periodical, The Indian Journal of Chest Diseases and Allied Sciences and continues its effort to disseminate the recent advances in Chest Diseases and allied sciences. It is available online at the website address; <<http://www.vpci.org.in>>. Further, 46 research papers authored by Institute’s faculty members were published in reputed national and international journals and book chapters.

Budget During the Year 2009-10

Plan	Rs. 12.00 crores
Non Plan	Rs. 17.00 crores

Infrastructure Development

As part of continuing efforts in upgrading and modernization of the Institute, various equipments relating to patient care and diagnostic and for research and development were procured. Major equipments added are: Whole Body Multi Slice Helical CT Scanner (64 Slices/Rotation), CCTV, Non Invasive Ventilator UV-VIS Double Beam Spectrophotometer, Spectrum Monitor, Hardware & Software for Archiving & Networking System, HPLC System, Body Composition Analyzer, Portable Aerosol Spectrometer, Nikon Ten Header Trinocular Microscope, Electrophoresis & Trans Blot Unit, Biosafety Cabinet, Nikon Trinocular Research Microscope, Refrigerated Incubator cum Shaker, NIBP Recording System, Blood Gas Analyser, Biosafety Cabinet, Whole Body Plethysmograph, Water Purification System, etc.

In addition, most of the renovation works are done with an eye on Persons with Disabilities (PWD). Ramps are provided for easy access to OPD, Doctors’ Room, ICU, Medical Investigation Rooms, Wards, Parking places, etc. Exclusive parking places are provided (with proper signage markings) for PWD. In the Auditorium of our Institute, special toilets have been provided exclusively for PWD. Ramps are also provided for easy access for PWD to enter the Auditorium seats and stage.

Renovations/upgradations of Biochemistry, Physiology, Pharmacology and Respiratory Allergy and Applied Immunology Departments of the Institute were completed. Renovations/upgradations of Microbiology, Medical Mycology, Clinical Biochemistry Departments as well as Staff Quarters are going on.



15.28. CENTRAL BUREAU OF HEALTH INTELLIGENCE (CBHI)

15.28.1. Introduction

Established in 1961, CBHI is the National Nodal Institution for Health Intelligence in India, with the broad objectives to:

- (1) Maintain and Disseminate the (i) National Health Profile (NHP) of India, (ii) Health Sector Policy Reform Options Database (HS-PROD), (iii) Inventory and GIS Mapping of Govt. Health Facilities in India, etc.
- (2) Review the Progress of Health Sector Millennium Development Goal (MDG) in India,
- (3) Annual Road Safety Profile of India,
- (4) Facilitate Capacity Building & Human Resource Development,
- (5) Need Based Operational Research for Efficient Health Information System (HIS) as well as use of Family of International Classification (FIC-ICD-10 & ICF) in India and
- (6) Function as WHO-CC on FIC in India, closely links with WHO – CCs on FIC in the World, Asia Pacific FIC Network & South East Asian Countries.

15.28.2. Organization

- (a) In Dte. GHS / GOI, the CBHI headed by Dy. Director General & Director has four divisions viz. (i) Policy & Infrastructure, (ii) Training, Collaboration & Research, (iii) Information & Evaluation, and (iv) Administration.
- (b) Six Health Information Field Survey Units (FSUs) of CBHI are located in different Regional Offices of Health and Family Welfare (ROHFW) of GOI at Bangalore, Bhopal, Bhubaneswar, Jaipur, Lucknow & Patna; each headed by a Dy. Director with Technical & Support staff, who function under the supervision of Sr. / Regional Director (HFW/GOI).
- (c) Regional Health Statistics Training Center (RHSTC) of CBHI at Mohali, Punjab (near Chandigarh), CBHI-FSUs and Medical Record Department & Training Centers (MRDTC) of Safdarjung Hospital New Delhi & JIPMER Puduchery; conduct various CBHI In-service Training Courses.

15.28.3. Major Activities of CBHI

15.28.3.a Maintain and Disseminate the National Health Profile of India on ñ

Demography

- Population Statistics
- Vital Statistics

Socio-Economic

- Education, Social Indicators, Economic Indicators, Employment, Housing & Amenities, Drinking water & Sanitation, Health Legislation in India, Survey on Morbidity, Health Care and Condition of the Aged.

Health Status

- Morbidity & Mortality
- i. Communicable Diseases ii. Non Communicable Diseases
- Incidents of Deaths due to Accidents, Major Outbreaks Investigated by NICD , Reproductive & Child Health, Disability, Mental Health

Health Finance

- Five Year Plan Outlays
- Health Expenditure & Financing Agents

Human Resources in Health Sector, including AYUSH

Health Infrastructure, including AYUSH

- Education Infrastructure (Medical, Nursing & Paramedical)
- Service Infrastructure
- Vaccine-wise and Institution-wise status of production, demand and supply
- Directory of Health Research Institution in India

15.28.3.b. Health Sector Policy Reform Option Database (HS-PROD) of India.

Though States / UTs of India have undertaken reforms in the health sector, a lot of this goes unnoticed and hence not documented. Thus, MOHFW/GOI under its Sector Investment Programme (SIP) funded by European Commission, entrusted CBHI to develop and maintain HS-PROD. 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. The

HS-PROD website (www.hsprodindia.nic.in) till date has documented more than 260 reform options from a varied range of fields and stakeholders like the States/UT governments, development partners, non-government organizations and categorized them under 16 key management areas.

15.28.3.c. Inventory & GIS Mapping of Government Health Facilities in India:

For creation of an electronic database of government health facilities, educational institutions, training centres, and other health care establishments in India, CBHI has prepared a database of the Govt. health facilities for their mapping using Geographical Information System (GIS) for its wider dissemination through the CBHI website. It is an ICT based approach to strengthen the health care resources management and planning for efficient health services delivery as envisaged under NRHM. Data has been collected from all the 35 States/UTs from the periphery and other source agencies including Statutory Councils and GIS mapping of the Govt. health facilities uploaded on the national website www.cbhighf.nic.in during February 2008. All the States/UTs are in process of data validation & updating the Govt. health facilities online. Keeping in view the census 2011 village/area codes. Once the updation is done, the GIS view will be opened for web surfer's access for public.

15.28.3.d. Millennium Development Goals.

The Millennium Declaration adopted by the General Assembly of the United Nations in its Fifty-fifth session during September 2000 reaffirmed its commitment to the right to development, peace, security and gender equality, to the eradication of many dimensions of poverty and to overall sustainable development. These are intended for the Member Countries to take efforts in the fight against poverty, illiteracy, hunger, lack of education, gender inequality, infant and maternal mortality, diseases and environmental degradation. The Millennium Declaration adopted 8 development goals, 18 time-bound targets and 48 indicators to be achieved by 2015, of which 3 MDGs are directly related to health sector viz. reduce child mortality, improve maternal health and combat HIV/AIDS, malaria and other diseases; for which CBHI is responsible for compilation in Dte.GHS/MOHFW/GOI.

15.28.3.e. National Level In-service Man-power Development Training Programs per year:

Training Course (and Batch size)	Duration and Frequency	CBHI Training Center (Details Over-leaf)
Medical Record Officers (15)	One Year 02 batches a year	Medical Record Department & Training Centers at
Medical Record Technicians (15)	6 months 4 batches a year	(i) Safdarjung Hospital, New Delhi
Training Course of Master Trainers on Family of International Classification (ICD-10 & ICF), 9 States/UTs per batch	One week (5 days) 2 batches in a financial year	(ii) JIPMER, Puduchery CBHI/RHSTC, Mohali (Near Chandigarh)
Orientation Training Course on Health Information Management for Officers (15)	One week (5 days) 2 batches in a financial year	CBHI/RHSTC, Mohali
Orientation Training Course on Health Information Management for Non-medical Personnel (20)	One week (5 days) 14 batches in a financial year	(i) CBHI/RHSTC, Mohali, and (ii) CBHI/FSUs at Bangalore, Bhopal, Bhubaneswar, Jaipur, Lucknow & Patna
Orientation Training Course on Medical Record & International Management (20)	One week (5 days) 14 batches in a financial year	(i) CBHI/RHSTC Mohali, and (ii) CBHI-FSUs at Bangalore, Bhopal, Bhubaneswar, Jaipur, Lucknow & Patna.
Orientation Training course on Medical Record & Information Management (20)	One Week (5 Days) 8 batches in a financial year.	(i)CBHI/RHSTC, Mohal (ii)CBHI,FSUs Bangaluru Bhopal Bhubaneswar, Jaipur Lucknow & Patna

On regular basis more than 40 batches of training courses covering more than 800 candidates are held every financial year. Training Calendar, Eligibility Criteria, Guidelines and Application Forms for all the above courses can be downloaded from the CBHI website www.cbhidghs.nic.in

During 2010-11 (up to 10.12.2010), 521 Personnel from all over the country have been trained in various in-service training courses viz. Medical Record Officer, Medical Record Technician, Health Information Management for Officers, Health Information Management for Non-medical Personnel, Family of International Classification (ICD-10 & ICF) for Non-medical Personnel, Master Trainers on Family of International Classification (ICD-10 & ICF) and Medical Records and Information Management through CBHI Training Centres and 13 batches of trainings are still to be conducted up to 31st March, 2011.

In 2011-12, 46 batches of in-service training courses are expected to train more than 900 functionaries.

15.28.3.f. Capacity Building, Operational Research & Reviews

CBHI FSUs located in Regional Offices of Health & FW/GOI at Bangalore, Bhubaneswar, Bhopal, Jaipur,

Lucknow and Patna help CBHI in getting the validated health information from States/UTs and facilitate in capacity building of health care

delivery functionaries as well as operational research keeping in view the objectives of CBHI. The CBHI regularly undertakes half yearly meetings to review functioning of all the FSUs and Training Centres and during 2010-11, 12th & 13th half yearly review meeting was held during 7-8 July 2010 at FSU Lucknow and 14th such meeting is tentatively scheduled during January 2011 in Rajasthan. The Multicentric Study on the Organisation & Functioning of Medical Record Department and use of ICD – 10 in Secondary and Tertiary Level Allopathic Hospitals in Different Regions of India has been undertaken during 2010-11 in 12 State/UTs including 72 hospitals with the following objectives:

- (1) Situation Analysis of infrastructure in terms of the organisation, functioning, logistics and human resources along with their training & skills in a Medical Record Departments/Units in the hospital from CHC through tertiary level.
- (2) To study the present system of record generation, compilation, analysis, storage and retrieval of medical records in the hospitals.

- (3) To study the usage of ICD-10 for morbidity & mortality coding along with major constraints and feasible solutions.
- (4) To recommend the improvisation and strengthening of Medical Record Department (MRD) and use of FIC (ICD-10 & ICF), in terms of optimal requirement on the: (a) Functions, (b) Organisation with regard to human resources and their training as well skill needs (c) Logistics including physical space and ICT and (d) Development of pool of trained manpower for efficient functioning of MRD.

15.28.3.g. CBHI As WHO Collaborating Centre on Family of International Classification (FIC)

CBHI with due approval by MOHFW the Dte. GHS/MOHFW, GOI has been (Sept., 2008) officially declared to function as “WHO Collaborating Centre on Family of International Classifications (ICD-10, ICF & ICHI)” for coding morbidities, mortality, related health aspects, function and disabilities in India, while closely, linking with South East Asia Pacific network on FIC.

15.28.3.h. CBHI Functions as WHO Collaborating Centre on Family of International Classifications (ICD-10 & ICF) in India, with major Terms of References to:

- (1) 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.
- (2) 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:
 - (a) 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.

- (b) Studying aspects related to the structure, interpretation and application of contents those concerning taxonomy, linguistics, terminologies and nomenclatures.
- (c) Participating in the quality assurance procedures of the WHO-FIC classifications regarding norms of use, training and data collection and application rules.
- (3) Network with current and potential users of the WHI-FIC and act a reference centre (e.g. clearinghouse for good practice guidelines and the resolution of problems) by:
 - (a) assisting WHO Headquarters and the Regional Offices in the preparation of member components of the WHO-FIC and other relevant materials.
 - (b) Participating actively in updating and revising the member components of the WHO-FIC.
 - (c) 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.
- (4) 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), and
- (5) Present periodic reports of the centre’s activities to the annual meetings of heads of WHO Collaborating Centres for the WHO Family of International Classifications (WHO-FIC).
 - i. Director (CBHI) attended WHO – FIC Network Annual Meetings, 16-22 Oct. 2010 at Toronto, Canada.

15.28.3.i. Maintenance of Three CBHI National Web Sites.

CBHI with the assistance of NIC, has recently (2008-09) redesigned & reformatted its three websites viz. (i) www.cbhidghs.nic.in (ii) www.hsprodindia.nic.in (iii) www.cbhighf.nic.in, for online data transmission and public viewing.

- (i) CBHI website www.cbhidghs.nic.in contains general information about CBHI, National Health Profile, Mortality Statistics in India (2006), Right to Information Act, National Recommendations on improving and strengthening Health Information System, as well as use of ICD 10 in country, CBHI case study & recommendations on human health resource requirement, CBHI in-service training programmes/ calendar along with application forms, Module & Work Book on ICD 10, Reporting formats for health data from States/UTs to CBHI, etc.,
- (ii) CBHI Website www.hsprodindia.nic.in contain entries related to Health Sector Policy Reform Data Base of India and being updated from time to time.
- (iii) CBHI's third website www.cbhighf.nic.in containing inventory & GIS mapping of the Govt. health facilities, was launched by DGHS/GOI.

15.28.3.j. Major Publications of CBHI (2010)

- (1) Trained Manpower Document on Family of International Classification Cation (ICD-10 & ICF): Indian Experiences (2004-2010), October, 2010
- (2) National Health Profile (NHP) 2009, March 20, '2010.

15.28.3.k. CBHI Activities under WHO/GOI, (Biennium 2010 & 2011) are as under

- 1. National Review on the use of ICD-10 in 6 different Regions of India & to recommend on further improvisation and strengthening.
- (1) Development of Advocacy & Training kit well as Simplified coding manual for family of International classifications (ICD-10 & ICF)
- (2) National consultation to update the framework and guidelines for disability certification to principles of ICF in India,
- (3) National Review on updation of data on GIS mapping of all the Government Health Facilities in all the 35 States/UTs.

15.28.3.l. CBHI ñ On Line Data Entry System through website www.cbhidghs.nic.in.

State/UT HFW directorates are responsible for punctually and regularly furnishing the (i) Monthly Communicable Diseases (ii) Monthly Non-Communicable Diseases, and (iii) Annual Data on Medical/Nursing/Para-Medical education & infrastructure in the prescribed formats to CBHI/ Dte.GHS. Based on this information from all the States/UTs and other reporting agencies, provide up-to-date data related to morbidity & medical/health infrastructure for framing reply to the Parliament Questions. CBHI also brings out annual publication "National Health Profile" which serves as National Reference Document for policy, planning and evaluation now of health related activities in the country. The above requisite health information are being sent by the States / UTs On-line through CBHI website www.cbhidghs.nic.in.

15.28.4. CBHI Linkages and Coordination

1. All 35 States/UTs of India
2. All 20 Regional Offices of Health & FW of GOI
3. National Rural Health Mission (NRHM) and National Health Programmes in India
4. Medical, Nursing & Paramedical Councils & Educational Institutions
5. Public Health/Medical Care Organizations and Research Institutions under Department of Health Research including ICMR and Various other Ministries
6. Census Commissioner & Registrar General of India
7. Planning Commission, Government of India
8. Union M/o Statistics & Programme Implementation
9. Union Ministries of Railways, Labour, HRD, Rural Development, Communication & Information Technology, Shipping Road Transport & Highways, Home Affairs, Defence, Social Justice & Empowerment etc.
10. Non-Government Organizations in Health & related sectors in India
11. WHO and other UN Agencies Concerned with Health and Socio-economic Development
12. European Commission

13. All the WHO – Collaborating Centres on Family of International Classification (FIC) in the world, Asia Pacific Network on FIC and countries of South East Asia Region

15.28.5. Budget

CBHI under this budget head “Health Information and Monitoring System” has been allocated an amount of Rs.16850000 BE Rs.15770000 RE Rs 15000000 BE for 2011-12 proposed in plan for the financial year 2011-12.

15.29. NORTH EASTERN INDIRA GANDHI REGIONAL INSTITUTE OF HEALTH AND MEDICAL SCIENCES (NEIGRIHMS), SHILLONG

North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS) has been established in Shillong, on the lines of AIIMS, New Delhi, and PGIMER, Chandigarh, with the objective of providing advanced specialized Health-care to the people of North East Region. An amount of Rs. 1266.38 crore has been allocated for the Institute in the 11th Plan.

This Institute has been planned to include a 500 bedded referral hospital with 35 teaching departments at postgraduate level in various specialties and super-specialties. A fifty seat Nursing College and Under Graduate MBBS College has already started functioning from the Institute.

- ❖ PG Courses in Anesthesiology, Obst. & Gynecology, Microbiology and Pathology have started in 2009-10

Total staff strength in the Institute

Sl. No.	Total Staff	Post sanctioned	Filled up	Vacancy position
1	NEIGRIHMS	1524	850	674

- ❖ Budget Allocation & Expenditure for the years 2010-11 is indicated below:-

Name of the Institute	Allocation 2010-11	Amount released as on 17.01.2011
NEIGRIHMS	102.85	67.85

15.30. NATIONAL INSTITUTE OF BIOLOGICALS (NIB), NOIDA

The Ministry of Health & Family Welfare has established the National Institute of Biologicals (NIB) as an Apex Scientific institution in the country at an estimated cost of Rs. 269.24 crores. The Institute shall be a National Control Laboratory (NCL) for assuring availability of high standards and good quality of biological products namely Vaccines, Blood products, Recombinant DNA products, Reagents, Immunodiagnostic kits, Therapeutic Enzymes & Hormones, Glucometers, Allergens, etc. that are manufactured indigenously or imported into the country.

The scientific activities of the Institute are performed by Laboratories carrying out the Quality Control Evaluation/ testing of different batches of various types of Biologicals as under :

- a) Critical immunodiagnostic kits (ELISA, rapid, confirmatory and automated kits) for diagnosis of HIV, HCV and HBsAg & Syphilis.
- b) All categories of Blood Grouping Reagents like Monoclonal, Polyclonal, blend and type like Anti-A, Anti-B, Anti-AB, Anti-D (IgM), Anti-D (IgM+IgG), Anti-D(IgG), Anti-C, Anti-c, Anti-E, Anti-e, Anti-H (Lectin), Anti Human Globulin (AHG) and Bovine Serum Albumin (BSA), Anti-K, etc. In addition evaluation of Blood Grouping kits are also done.
- c) Blood Products like Human albumin, normal and specific immunoglobulin, coagulation factors (factor-VIII & IX), Plasma Protein fraction & Fibrin Sealent.
- d) Biotherapeutics Enzyme and Hormones like Streptokinase, hCG&FSH
- e) Viral and Bacterial Vaccines – OPV, MMR, CCRV, HRIG, TAT, Alib, Meningococcal, etc.
- f) Recombinant products like Insulin Analogs, Interferon and Erythropoietin.
- g) Biochemical test kits like for Glucose, Cholesterol, Triglycerides, HDL & LDL
- h) Allergens like House dust mites & cockroaches
- i) Preparation of National Reference Standards and well characterized Sera Panels with traceability.

In addition to the above mentioned main laboratories, there are other supporting laboratories/units like the Bioassay, animal facility, Sample Receipt & Report Despatch Section, Quality Management Unit, etc.

Performance Report

(a) Since 1997, NIB has been doing Quality Control Evaluation of various batches of critical immunodiagnostic kits for HIV, HCV, HBsAg and Syphilis. The main functions of the Diagnostic Division is to certify the quality of diagnostic kits for assuring the safety of blood from the viral diseases at blood banks resulting in Safe Blood Transfusion. The types of kits evaluated are Enzyme Linked Immunosorbant Assay (ELISA), Enzyme Immunofluorescent Assay (ELFA), Chemi Luminescence Immuno Assay (CLIA), Rapid & Confirmatory (Western Blot, RIBA & Neutralization antibody). These kits are either indigenously manufactured or imported, and referred by the port offices and CDSCO offices of DCG(I). The total number of kits evaluated during the year was 177 out of which 55 kits were for HIV, 53 kits for HBsAg, 60 kits for HCV & 4 each for Syphilis and HIV-HCV combo kits. Evaluation was done as per Standard Operating Procedures based on WHO guidelines. The Laboratory has prepared characterized sera panel for evaluation of HIV, HCV and HBsAg and have been supplied to indigenous licensed diagnostic kits manufacturing 165 Laboratory Technicians from CHCs, PHCs, IECS, Blood Banks, District & Private Hospitals and Medical Colleges from various districts of U.P. and Uttarakhand have been trained in HIV testing. The lab has participated in International and External Quality Assessment Programme (EQAS) for HIV & HCV with National Serology Reference Laboratory Australia. The lab has also conducted EQAS for NACO State Reference Laboratories of Uttar Pradesh and Uttarakhand. Under NACO's HIV Sentinel Surveillance (HSS) in 45 Targeted Interventure (T.I.) based high risk group based in the States of U.P., Bihar and Assam. 12000 dried blood spot (DBS) testing was done. In addition to Evaluation of kits for its quality, a total number of 60 batches of Blood Products, Human albumin Immunoglobulin Factor VIII Fibrin Sealant, Hepatitis B Immunoglobulin were tested for Transfusion Transmitted Infection (TTI).

- (b) The Blood Grouping Reagents Laboratory is a notified CDL under the Drugs & Cosmetics Act for Quality Control Evaluation and Batch Release Certification of Blood Grouping Reagents. The Institute, besides dealing with legal samples referred by CDSCO, also certifies the quality of Blood Grouping Reagents for safe blood transfusion services. The Institute during the year tested and reported 55 batches of Blood Grouping reagents
- (c) The Blood Products samples in the Institute are received from and through the Port Offices of the DCG (I) for Quality Control Evaluation and pre-release certification. A total of 53 batches of such blood products received for evaluation during the year were Human Albumin, Coagulation Factor (Factor VIII & IX), Fibrin Sealant Kit, Plasma Protein, Plasma Protein Fraction, and human normal IgG (Immunoglobulin) IV & IM, Specific Immunoglobulin (Anti D IgG).
- (d) The Enzymes and Hormones Laboratory has been set up to evaluate the Quality Control testing of Biotherapeutic Enzymes and Hormones namely Streptokinase, Urokinase. The work has been initiated on Human Chorionic Gonadotropin. During the year 3 batches of streptokinase were tested and reported. Standardization of parameters for Q.C. evaluation of heparin is also in progress.
- (e) The Bacterial Vaccine Laboratory was established to initiate the Quality Control Testing of Bacterial Vaccines for pre-release certification. The laboratory have standardized quality control test parameters to take up the testing of BCG vaccine (live attenuated) and polysaccharide vaccine viz. Haemophilus Influenza type 'b' conjugate vaccine. The viral Vaccine Laboratory of the Institute, during the year, have (i) standardized the quality control parameter of Live Attenuated MMR Vaccine and Cell culture Rabies Vaccine. 6 batches of MMR and 4 batches of Rabies vaccine have been tested. The approval for the safety test has been taken up. The testing of Rabies Immune-globulin and Tetanus Antitoxin is ready to be taken up.
- (f) Recombinant Products Laboratory has been established for Quality Evaluation of

Recombinant Products derived by recombinant DNA technology. Laboratory has standardized 12 parameters for testing of rh-Insulin and Insulin analog formulations and during the year 86 batches from 11 different formulations of Insulin and Analogs have been tested and reported upon. This includes Insulin formulations namely Regular, NPH, biphasic (50:50, 25:75, 30:70), Lispro, Aspart, glargine, Glucagon like peptide. Developed Pharmacopoeia specifications for Human Insulin to be incorporated as addendum in insulin monograph. Preparation of National Reference Standard for Insulin Human was taken up by Inter-laboratory collaboration at National & International level. Newer products are ready to be taken up are hematopoietic factors, and Analogs –Detemir, Glulisine.

- (g) Biochemical laboratory for evaluation of test kits is in the initial phase of its establishment to develop methodology for routine biochemical kits for Glucose by collection of fresh left over blood samples from various reputed hospitals. Similarly Glucometers and test strips have been studied as per the method developed for it. The process of standardization of the other biochemical kits viz., Cholesterol, Triglycerides, HDL & LDL have been initiated.
- (h) Bioassay Lab for Sterility test has performed the test as per Pharmacopoeia requirements given in USP, BP and IP by 3 methods viz., direct inoculation, membrane filtration and closed system membrane. Total of 134 samples have been tested for sterility test on samples of insulin formulations and blood products referred by respective laboratories.
- (i) Animal Facility registered with CPCSEA in 2004 is fully functional to perform mandatory in vivo tests for the Quality Control Evaluation of Biologicals as given in Pharmacopoeia. During the pre-view period, IAEC approval has been taken for mandatory regulatory tests on Human Albumin, Streptokinase, Immunoglobulin, hCG Hormone, live attenuated Measles Vaccine, Cell Culture Rabies Vaccine and Hyperimmune Rabies serum.

Abnormal toxicity assay has been performed on 21 batches of Human Albumin, 2 batches of

Plasma and 3 batches of Streptokinase. Potency Assay for LCG Hormone and abnormal toxicity assay for polysaccharide vaccine viz. Haemophilus influenza type B conjugate vaccine has been standardized and Progen test on rabbits is under standardization.

- (j) Nucleic acid testing laboratory has been established for Nucleic acid based detection of Transfusion Transmitted Viruses (HBV, HCV, and HIV1) in human plasma samples. During the year 07 samples were tested on plasma and albumin for HBV, 02 samples for HIV and 06 samples for HCV by viral RNA extraction.
- (k) Reference standard Unit maintains a repository of traceable Standards procured from NIBSC, USP, EDQM, BBI, Paul Ehrlich and WHO. These are for diagnostic Kit, blood grouping reagents, blood products, enzymes and hormones, recombinant products, bacterial and viral vaccines.
- (l) Quality Management Unit has prepared the quality manual document as per requirements of ISO 17025. It has taken up the process of filing application to NABL for accreditation of laboratories as per chemical and biological tests. To include in the 1st phase testing of various Biologicals like Immunodiagnostic Kits, Blood Products, Blood Grouping Reagents, Enzyme & Hormones and Recombinant products, sterility tests and Animal tests were included. The unit conducted an Internal Quality Audit Management Review Meetings for compliance of actions and the pre-inspection by the NABL Lead Auditor for the same was held in April 2010.

BUDGET

The funds of the Institute are received as Grant-in-aid from the Ministry of Health & Family Welfare. The B.E. & R.E. of the Institute are as under:

Rs. in crore			
Year	B.E.	R.E.	Expenditure
09-10	15.00	11.00	10.98
10-11	17.25	15.00*	8.38 #
11-12	17.80 *	---	---

* proposed

up to Nov. 2010

15.31. BCG VACCINE LABORATORY, (BCGVL) GUINDY

Activities

The BCG Vaccine Laboratory was engaged in the following activities :

- Production of BCG Vaccine (10 doses per vial) for control of childhood Tuberculosis and supply to Expanded Programme of Immunization (EPI) since 1948.
- Production of BCG Therapeutic (40 mg.) for use in Chemotherapy of Carcinoma Urinary Bladder since 1993.

Performance of Laboratory at Present:

After revocation of suspension of manufacturing licence vide Ministry of Health & Family Welfare Order No.X.11035/2/2010-DFQC dated 26.2.2010, the manufacturing of BCG Vaccine 10 doses has started.

BCG Cancer Vaccine (40mg): Production of BCG Vaccine (40 doses) has yet to start.

Total Revenue Earned: Total revenue earned is Rs.2,73,233 from Sale of Guinea Pigs, Sale of condemned items, Licence fee for Community Hall and Guest House.

Important Achievements during 2010-11: After the revocation of suspension of manufacturing licenses, production process has been initiated.

Budgetary Details:

Budget Grant- 2010-11-Non-Plan (Actual Expenditure as on 31.10.2010)

Sl. No.	Sub-head	Budget Grant 2010-11	Expenditure incurred from 1.4.2010 to 31.10.2010	Balance available
1	Salaries	6,00,00,000	2,39,29,527	3,60,70,473
2	Medical Treatment	12,00,000	1,12,660	10,87,340
3	Overtime Allowance	20,000	14,667	5,333
4	D.T. E	5,00,000	99,001	4,00,999
5	Office Expenses	37,00,000	20,57,564	16,42,436
6	Supplies & Materials	3,00,00,000	1,07,87,656	1,92,12,344
7	Advt. & Publicity	2,50,000	81,718	1,68,282
8	Minor Works	35,00,000	12,10,456	22,89,544
9	Mach. & Equipment	2,58,30,000	31,42,859	2,26,87,141
TOTAL		12,50,00,000	4,14,36,108	8,35,63,892

Budget grant ñ 2010-11- Plan (Revenue)

Sl. No.	Sub-head	Budget Grant 2010-11	Expenditure incurred from 1.4.2010 to 31.10.2010	Balance available
1	Office Expenses	50,00,000	18,83,419	31,16,581
2	Materials & Supplies	1,40,00,000	4,94,910	1,35,05,090
3	Machinery & Equipment	2,85,00,000	2,00,226	2,82,99,774
TOTAL		4,75,00,000	25,78,555	4,49,21,445

Budget Grant-2010-11-4210 Capital Outlay on medical and Public Health (Major Head)

Sl. No.	Sub-head	Budget grant 2010-11	Expenditure incurred from 1.4.2010 to 31.10.2010	Balance Available
1	Motor Vehicles	1000000	0	1000000
2	Machinery & Equipment	4000000	0	4000000
3	Major Works	5000000	0	5000000
TOTAL		1,00,00,000	0	1,00,00,000

Group Wise Staff Position of BCG Vaccine Laboratory, Guindy, Chennai

Group	Sanctioned Strength	Abolished	Present Strength	Filled	Vacant	Excess Incumbent
Group-A	3	-	3	2	1	-
Group-B Gazetted	4	-	4	-	4	-
Group-B Non-Gazetted	14	5	9	5	4	-
Group-C	160	63	97	122	3	28
Total	181	68	113	129**	12	28

** The filled posts include excess incumbents whose appointments were made after receipt of various recommendations of MHFW for abolition of posts/abolition orders under optimization Scheme/IWSU.

15.32 ALL INDIA INSTITUTE OF HYGIENE AND PUBLIC HEALTH (AIH & PH), KOLKATA

Background

The All Institute of Hygiene and Public Health (AIH&PH), Kolkata was established on 1932 with the assistance of Rockefeller Foundation. This institute is pioneering in Post-Graduate Teaching and Research in various disciplines of health intelligence and health services. The Institute continues to pursue with its mandate for development of human resources in the field of Public Health since its inception. The primary objectives of the Institute are:

- To develop health manpower by providing post-graduate training facilities of the highest order;

- To conduct research directed towards the solution of various problems of health and diseases in the community;
- To undertake fundamental and operational research to develop methods for optimum utilization of health resources and application of the findings for protection and promotion of health care services.

Institutional set up

The Institute has eleven academic Departments and two (2) field practice areas, one at Urban Health Centre, Chetla, Kolkata and the other at Rural Health Unit & Training Centre, Singur, Dist. Hooghly. Under the aegis of these departments and field practice units, various teaching/ training courses, field programs and workshops are conducted. The Institute also houses a reference

library especially on health sciences to cater to the needs of the students, faculty and other users. Two hostels, one for men and another for women, are located in the vicinity of the main building of the Institute to accommodate students and guests. Hostel facilities are also available at Rural Unit & Training Centre, Singur. Work on construction of the Institutional Block in the Bidhan Nagar campus of the Institute coming up at Salt Lake, Kolkata is almost complete. Construction of 44 residential quarters, substation building, international hostel and guest house along with associated services has already been completed.

Budget Allocation

The Institute has been allocated the following Budget Grant during the financial year 2010-11:

Budget Head	Plan	Non-Plan	Total
Grant(Rs. Crores)	7.22	16.87	24.09

Besides, international agencies like WHO, UNICEF etc. Other central and state agencies also provided funds to this Institute to carryout various projects/research activities in Public Health & Hygiene.

Teaching and Training Activities

During the year 2010-11, the Institute conducted MD/Community Medicine and Masters degree Course in Veterinary Public Health, Post Graduate Diploma Courses viz., DPH, DMCW, DIH, DHE, Dip- Diet, DPHM, DNEA, DHS, M. Sc. in Applied Nutrition, MPH and MEPH.

The Institute organized the following courses:

- Training on Trainers in Immunization for MOs For NE States supported by NIHF, New Delhi
- FETP course for District Surveillance Officers of the IDSP of Nagaland, Mizoram, Tripura and West Bengal.
- ‘Communicable Disease Epidemiology & its application in Health Promotion Prevention and Control’
- ‘Advance Methods in Epidemiology, Bio-Statistics and Research’
- ‘PLA for Health Promotion & Education’
- Health Risk Behavior, Surveillance & Promotion for NCOs’

- ‘Life skill education for Adolescent health’
- Institutional Capacity Enhancement Training in Health Promoyion to train a group of master trainers from Bhutan in collaboration with WHO SEARO, August 09.
- Behavioral change in Public Health.

Important Projects/Research Activities

- Public Health Problems Particularly on Public Nutrition, Community Nutrition, Micronutrients, Malnutrition & street food.
- Prevalence of Arsenicosis in West Bengal.
- Monitoring & surveillance activities in HIV / AIDS surveillance in West Bengal & North Eastern States supported by NACO.
- Conducted WHO (FIP) on Epidemiological concepts in Malariology and its prevention and control & Epidemiology of Comuincable/Non-communicable Diseases.

Other Important Activities

- a. The Department of PHA, as the Nodal department, has conducted Professional Development Course (PDC) for District level officers, which is sponsored by Govt. of India and European Commission.
- b. The Department of Epidemiology organized two Pre-Surveillance Training Workshops for the participants from 11 States under HIV Sentinel Surveillance (HSS).
- c. The Department of Microbiology along with the Department of Epidemiology of this Institute has been identified by NACO as the Departments of Regional Institute (RI) for the HIV Sentinel Surveillance Programme.
- d. The Department of Sanitary Engineering Provides services of water/ waste water analysis to various Government organizations, municipal authorities, NGOs etc.
- e. The Sanitary Engineering Department, Govt, of West Bengal & UNICEF in various ways for the mitigation of arsenic problems in West Bengal.
- f. 30 trainees have so far been nominated by WHO for training in different courses in the biennium 2009-10.

- g. The Department of Microbiology is conducting IDSP training programmes for District Medical Officers for the 3rd phase of the training in the North Eastern States of India.
- h. Counseling through video-conferencing of MBBS/ BDS(15%) seats, MD, MS/MDS (50%) under ALL India UG/PG quota, AIIH&PH has been one of the counselling venue.

Field Practice Units:

Two Field Practice Units viz. Urban Health Centre, Chetla, Kolkata and Rural Health Unit & Training Centre, Singur, Hooghly (West. Bengal) are operating smoothly under the direct control of AIIH & PH. Besides the field Practice services offered to the students of the Institute, the field units are also providing excellent clinic based preventive, promotive & curative services to the community.

Library Services:

The Institute has a large reference library, offering excellent services on health information and other related matters to various users. The Library is having about 65000 (approx) books and Journals. The stock of the library is constantly being enlarged and enriched every year through acquisition of latest books & journals, periodicals, etc.

Implementation of official language policy

The Praveen / Pragma training under Hindi Teaching Scheme has been started in the Institute itself. Staff and officers nominated for Prveen /Pragma. Officers/staff successfully completed the Praveen / Pragma training under Hindi teaching Scheme.

Details of the courses are being conducted at AIIH&PH, Kolkata are given below.

SI. No	Name of Course	Session	Duration	Sanctioned strength	Student admitted	Vacant
1.	Doctor of Medicine (Community Medicine)	2010-13	3 years	11	06	05
2.	Diploma In Public Health	2010-12	2 years	92	71	21
3.	Diploma in Maternal & Child Welfare	2010-12	2 years	46	45	01
4.	Diploma in Industrial Health	2010-12	2 years	15	11	14
5.	Master of Veterinary Public Health	2010-12	2 years	15	02	13
6.	Master in Public Health	2010-12	2 years	31	18	13
7.	Diploma In Nursing Education & Admn. (Child Health)	2010-11	1 years	62	08	54
8.	Diploma in Public Health Management	2010-11	1 years	25	04	16
9.	Diploma in Dietetics	2010-11	1 years	31	09	22
10.	Diploma in Health Education	2010-11	1 years	46	39	07
11.	M.Sc(Applied Nutrition)	2010-12	2 years	31	16	15
12.	Master of Engineering Public Health	2010-12	2 years	23	00	23
13.	Diploma in Health Statistics	2010-11	1 years	08	00	08

15.33. CENTRAL LEPROSY TRAINING AND RESEARCH INSTITUTE, CHENGALPATTU, TAMIL NADU

Introduction:

The Central Leprosy Teaching and Research Institute (CLT&RI), Chengalpattu was originally established in

1955 by the Government of India under a Governing Body by taking over Lady Wellington Leprosy Sanatorium established in 1924. Later, in 1974, Govt. of India had made CLT&RI as a subordinate office of Directorate General of Health Services, Ministry of Health & Family Welfare with an objective to provide diagnostic, treatment and referral services to leprosy patients, trained

manpower development for leprosy, control / elimination besides, research on various aspects of leprosy and its control. It has separate wings of Epidemiology and Statistics, Clinical, Medicine, Microbiology and Bio-chemistry laboratories with Animal House facilities, Surgery and Physiotherapy. This institute caters to both indoor and outdoor patients. The hospital has bed capacity of 124 patients. This Institute is also recognized as one of the nodal centers by Central Bureau of Health Intelligence (CBHI), Dte.GHS, Govt. of India for conducting Health Statistics training course for Medical Officers.

During 2010-11 till 30th November, 2010 following activities were carried out in the Institute.

Inpatients services

Total patients treated	=	554
Total Discharges	=	399
Patients remain at the end of the year	=	37

Out patients: Total patients treated = 5541

Surgery	2010-2011 (till 30-11-2010)
Reconstructive Surgery:	
Claw finger correction	11
Claw thumb correction	6
Wrist Correction	1
Drop Foot Correction	3
Surgical Decompression of Nerves:	
Ulnar Nerve	3
Ulcer Surgery	5
Miscellaneous like ear lobe repair, Biopsy, SSG Knee disorganization, MTH resection, Calcaneal shaving etc	5
Total	34

Physiotherapy Section:

New Case Registration : 40

Total number of cases
(for Exercise, Therapy, etc) : 4110

Radiography Section:

Total Number of Ski grams taken = 168
(as on 30-11-2010)

Micro-Cellular Rubber Mill:

MCR Sheet Production = 920
(as on 30-11-2010)

Division of Laboratories

Clinical pathology & Skin Smear	831
Haematology & Serology	3000
Microbiology	100
Histopathology & Molecular Biology	71
Bio Chemistry	3130

Training Section

All four Divisions, Clinical, Surgical, Epidemiology & Statistics & Laboratories are actively taking part in the various teaching and training programmes conducted by the Institute. The details of the programmes are as on 30-11-2010 follows:-

S.No	Category of service	Number of participants attended the training
1	Non Medical Health Supervisor's Training Course	83
2	Medical Officer Skin Smear Training (10 days)	1
3	PG Medical students from CMC & CRRI	53
4	Lab technician Skin smear raining (5 days)	5

15.34. REGIONAL LEPROSY TRAINING AND RESEARCH INSTITUTE, RAIPUR, CHHATTISGARH

RLTRI, Raipur is under the DGHS, continuously serving is having 75 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 has well equipped Operation Theatre and an expert Orthopaedic Surgeon to undertake various kind of Re-constructive surgery for leprosy related deformity.

As per the existing guidelines of the Government of India, the treatment of Leprosy is now available in every health facilities and in the changed scenario after integration the Institute provides only technical guidance as and when required.

Need based training program for all categories of medical personnel in the field of leprosy are organised. Condensed training program for Medical Officers as well as for the field level workers has been developed. The Institute has all the facilities and expertise to conduct the training program.

The Institute is also having well equipped indoor facility. A total of 356 cases were admitted in the indoor wards which includes 116 patients having ulcers, 58 patients having ENL reaction. The average monthly bed occupancy ratio of indoor wards during the year 2009-2010 was 50% and average duration of stay of the patient was 38 days. Leave against Medical Advice (LAMA) rate was less than 1%. 118 new and old RCS cases were also admitted in the indoor wards for Physiotherapy and treatment.

15.35. REGIONAL LEPROSY TRAINING & RESEARCH INSTITUTE ASKA, ORISSA

This institute was established in the year 1977. At present there is 47(Gr.A-2, Gr.C-23, Gr.D-20) staff in position out of 67 sanctioned posts. It has a 50 beds hospital and average bed occupancy is about 52%. The institute provides both Outdoor and Indoor services to leprosy patients. The institute also works as a referral center for management difficult to diagnose leprosy cases, Skin smear examination and problematic, complicated and intractable cases of reaction and ulcers. Physiotherapy measures and MCR chapples are provided to the 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 1. OPD Attendance - 954 (Leprosy -728 , Non-Leprosy -226). 2) Indoor - Total admission -280 3) Reaction cases Managed -63 with Thalidomide's 5. 4. Major Surgeries :- 41 5) DPMR - 153 (exercise, POP-37, splint-Nil, Crape Bandage -03) MCR Chappals -436) Lab:- Total Inv. - 1426 (Clinical - 740, Microbiology (Skin Smear ex).- :- 80, Parasitology & haematology :- 588 Bio- Chem.-18) 7) Training:— Faculty of this institute is going as resource person to impart modular trg. in NLEP to doctors and Paramedical staffs of state and also participate in NLEP review and planning meeting of states.

15.36. REGIONAL LEPROSY TRAINING AND RESEARCH INSTITUTE, GOURIPUR, BANKURA, WEST BENGAL

Regional Leprosy Training and Research Institute, Gouripur, Bankura, a 50 bedded leprosy hospital set up by Central Govt. in 1984.

The performance report up to 31st October, 2010 during the year 2010-11 is as detailed below-

- i. One day orientation training given to Homeopathy Student nos. 45
- ii. Admission-97 Discharge-100, New Case-35 Other case-1916 MDT given-314, Staff Treatment- Other cases attended-2551
- iii. Group Discussion- 249 Leaflet distribution-699, School Survey-0 nos., Student exanubed-0, Suspected Case-0, Film Show 0, IEC programme-47
- iv. Plastering – 19 pts, Ray-220 pts, Wax Therapy- 325 pts, Exercise and massage for indoor pts – averagely 8 pts daily
- v. 140 nos exposure
- vi. Slit Skin Smear – 571, Bio-chemistry-184, Clinical Pathology-235.

15.37. NATIONAL MEDICAL LIBRARY

Introduction

National Medical Library (NML) provide valuable library information services to support the academic, research

and clinical work Health science professionals in the country. It occupies important position in country's health care information delivery system. Some of the significant services provided by NML are:

15.37.1. Reference services & collection building

One of the greatest strengths of NML is its richest collection of books, reports, serials, bound volumes of journals and computer databases. This invaluable treasure of biomedical and health science information, which is often the only source, is widely used by professionals from all parts of the country. It has collection of over 1.35 lakhs books and over 5.2 lakhs bound journals. The Library subscribed 1510 print journals worth Rs. 7.44 crore in 2010. Library follows Open-Access system for shelf arrangement. Library added 390 volumes (books purchased 1035+ serials purchased 90+Gift books 30) by spending over 34.57 lakhs in the year 2010. The books and journals acquired during the year have been classified and catalogued by using LIBSYS library software package.

15.37.2. Local Area Network (LAN) and Online Public

Access Catalogue (OPAC): Servers and computers in the library are networked to form a LAN having an integrated Library Management Software Package – LIBSYS. About 40,500 records of books are now available through OPAC computer search by library users. Leased lines of (100 mbps) and broad band internet facility is available to provide Internet services including access to full-text of the journals.

Information Retrieval Services

NML has been offering the service using MEDLINE since 1990. Besides, it has about 500 CDs on different subjects. The biomedical information sources available on Internet, namely PUBMED, PUBMED Central, ERMED etc. were also accessed to meet the requirement of library users. Many articles were searched through MEDLINE service for getting references and abstracts for research scholars during the year. A Work station having the facility of 10 terminals fitted with CD writer is being developed for on-line access of foreign medical journals. Scheme to "Inter-linking of Government Medical College Libraries with the NML". Government colleges are provided with financial assistance to acquire hardware, software, Internet connectivity and to hire contractual staff. This scheme has already covered 78

medical college libraries. The project aims to develop information communication technology capability among the participating colleges to be able to access the online information resources available in NML.

Reference and Documentation Services

The library remains open on 359 days of the year from 0900 - 2000 hrs on weekdays and from 0930 - 1800 hrs on holidays. Over 150 users visit the library every day for reference, consultation, obtaining photocopies of required articles and information retrieval service. Library has been visited by information seekers to avail following services:

- Queries answered 4798
- New Membership 74
- Issue/return of documents 1270
- Inter Library loan (Print documents) 14

Library developed database of over 6000 medical thesis/dissertation submitted to medical colleges across the country. The same is available at <Search Medthes> at www.nml.nic.in. The library also developed a database of over 4000 medical articles published in Indian Medical journals in the country in MARC21 software under the **Index Medicus-India** project. The library also developed the database of over 6000 medical thesis submitted to different medical colleges across the country. The database is widely used through the NML website. Library brings out a quarterly "List of New books Added to NML". It is also bringing out a weekly **Indian Press Index on Health** which covers important press release on topics related to health science in prominent Indian newspapers.

Document Delivery Service

The Document Delivery Service provides access to the full text of documents needed by various medical specialists. This service is in fact used more widely than any other service of the library and caters predominantly to requests for copies of articles in journals (current as well as back files). A large number of request for photocopy of articles are received from outside Delhi by post, e-mail and fax through Government as well as private photocopy counters. Photocopies of about 7089 (approx.) articles per month are provided to medical research scholars across the country, in which postal charges are free for delivery of articles to outside Delhi states.

ERMED-India e-journal consortium

Over the years the National Medical Library (NML) has been providing a wide variety of Health Information dissemination activities focused on reaching out Health Care Professionals of the country. NML disseminates over 8000 (8000 x 5 =40,000 pages) photocopy of articles from medical journals per month to medical scholars across the country. The system involves sizeable photocopy machines + man power + maintenance of back ,volumes of medical journals, their shelving and repeated binding due to extensive use of journals.Despite above tedious efforts the end user does not get efficient document delivery service due to delay in postal services and human handling.

In 2010 ERMED purchased 1180 e-journals at the cost of Rs 10.20 crores for 98 members (2 private members have made their own payment for per site e-journals). The consortium recorded over **1,92,082** download of full text of articles from Jan- Jun 2010, which shows optimum utilization of ERMED resources .

NML envisions that the availability of latest knowledge and skills through global Medical Literature to Indian Medical Fraternity will be able to improve Medical Research output of the country and ensure effective Health Care System for All.

Training:

The Training cum Orientation programme for ERMED at National/Regional/State level has been conducted to create awareness and make the system more user friendly at the following Institutions mentioned below:

- (i) For Chandigarh, Haryana and Himanchal Pradesh, at PGIMER, Chandigarh, on 9th April 2010.
- (ii) For Gujrat and Madhya Pradesh, at BJMC, Ahmedabad on 20th April 2010.
- (iii) For Tamil Nadu, Puducherry and Port Blair at Dr.MGRMU on 27th April 2010.
- (iv) For Uttar Pradesh, at SGPIMS, on 21st May 2010
- (v) For West Bengal, at PGMER & SSKM on 19th April 2010.

NML also provided sufficient number of “Users Manuals” and “ Posters” to each participant to enhance awareness for ERMED. It is expected that the search skill of the users will be more efficient in future to make use of the ERMED resources.

Consultancy services provide to following Hospitals/ Institutes:

- National Institute of Health & Family Welfare, New Delhi
- Institute of Human Behaviour and Allied Sciences (IHBAS), Delhi.
- Safdarjung Hospital, New Delhi.

Branch Library: National Medical Library maintains a branch library in the 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. Steps are being taken to renovate the present library set up and to improve library collection and services at Branch Library.

15.38. LALA RAM SARUP TB HOSPITAL

LRS Institute of Tuberculosis (TB) & Respiratory Diseases has been engaged in the service of the Nation since 1952. From a TB Hospital, It became an autonomous Institute in 1991 with specific objectives of developing tertiary care facilities for patients suffering from respiratory diseases and for supporting the National Tuberculosis Control Programme (NTCP). The Institute is engaged in the management of patients through its state of the art Out Patient Department (OPD), Indoor wards, Operation Theatre, Respiratory Intensive Care Unit, Emergency Ward and quality assured Lab. Diagnostic facilities.

The institute has various departments and sections which are as follows:-

Departments:

Department of Anaesthesia, Department of Bio-Chemistry, Department of Epidemiology & Public Health, Department of Hospital Administration, Department of Internal Medicine, Department of Microbiology, Department of Molecular Medicine & Bio-technology, Department of Paediatrics, Department of Pathology, Department of Physiology ,Department of Radiology, Department of TB & Respiratory Diseases, Department of TB Control & Training, Department of Thoracic Surgery and Surgical Anatomy.

Sections

Respiratory intensive care unit (ICU), Sleep lab, Health education section, Biostatistics section, Voluntary

Counselling and Testing Centre (VCTC), Fibre-optic Bronchoscopy Unit, Lung Cancer section, Physiotherapy section, Library, Computer section, ART Centre, Yoga Centre, Allergy and Immunotherapy Clinic.

The sanctioned staff of the Institute is 610 and present staff strength is 495.

Out Patient Management:

A total of 28438 patients were registered in OPD registration counter. These are considered as chest symptomatic at the LRS-OPD. Out of these 6384 (22.4%) came from the LRS RNTCP specified area, 14218 (50.0%) from Non-Area and 7836 (27.6%) from outside Delhi.

A total of 20469 patients were diagnosed. Out of them 12971 (63.4%) were diagnosed as TB cases and 7498 (36.6%) were diagnosed as Non TB cases. After diagnosis, a total of 5682 TB cases were referred out from LRS to LRS DOTS centres / other chest clinics in Delhi or outside Delhi for further treatment from DOTS centres.

The total number of patients who attend the LRS OPD constitute mainly four groups (i) New registration (ii) Subsequent visits for diagnosis (iii) Follow up visits of TB cases and (iv) Follow up Visits of Non-TB patients. During the period, a total of 83561 patients attended the OPD with an average of total 373 patients per day including 128 per day as new registrations.

A total of 5119 chest symptomatic directly attended the DOTS centres under the specified area of the LRS institute. Besides these, 6384 symptomatic came directly at LRS OPD from the RNTCP area of the institute. This comprised a total of 11503 symptomatic under RNTCP. Out of these, a total of 1405 TB cases were registered under RNTCP for DOTS treatment. All of them were put on DOTS treatment with none on conventional.

A daily OPD for children is being carried out in the morning. A total of 2551 children were newly registered in the OPD. 213 were diagnosed as suffering from tuberculosis and referred to respective DOTS centres.

A centre for Integrated counselling for HIV testing has been operational in the institute. During the period, a total of 3122 patients were imparted counseling and tested for HIV. A total of 130 (4.2%) cases were found HIV positive during this period.

Comprehensive HIV care facilities are provided at the ART centre. These include free of cost antiretroviral

therapy, free CD4 testing, treatment and prophylaxis of opportunistic infections, patients and family counseling as well as pre ART support and care services. As on 31st December-2010, a total of 855 patients are on HIV care and 523 patients are on ART treatment.

Surgical Clinic is held on Tuesday/Friday afternoon for patients requiring surgical treatment and follow up post-operative patients. A total of 424 Major and 2850 minor procedures were done during this period.

The Institute runs various specialised clinics, which are held periodically. A total of 4303 patients attended these clinics during this period.

Indoor Management:

A total of 4114 patients were admitted. They included 482 patients admitted to Respiratory Intensive Care Unit. Of these, 4027 (98%) were admitted on free and 87 (2%) on paid beds. Many patients who were admitted came at terminal stage. A total of 3816 patients were treated and 708 died during this period.

Training of Medical & Paramedical personal:

Several training programmes have already being conducted by the institute for Doctors, paramedical personnel (Lab Tech., Sr. Lab Tech., Treatment organisers, Sr. Treatment supervisors and programme officers, Administrators) of several states. The 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 every year. A total of 762 trainees were imparted training during this period.

DNB course:

The Institute is recognized centre for post-graduate DNB (Respiratory Diseases) degree course since 1999. Now, w.e.f. 2009, the institute has been accredited for ten DNB seats per year. Regular teaching activities such as seminars, journal club, faculty lectures, grand case presentation, mortality meetings, pathological conference, radiological conference, bed-side clinical round are routinely carried out.

Organising the CME & Conferences:

The institute is actively involved in organising Continuing Medical Education programme (CME) on different aspects of diagnosis and management of tuberculosis and respiratory diseases.

Research Activities:

In addition to 20 on going DNB researches, 10 more were under taken during the period. Similarly in addition to 43 ongoing other than DNB researches, 18 more were undertaken during the period.

Publications:

During the period 11 faculty members of the Institute contributed chapters in the recently released NCCP Text Book of Respiratory Medicine(Editor in chief Dr. D. Behera) under the aegis of National College of Chest Physicians, India. In addition to this, there were 10 publications by the faculty in renowned National and International Journals.

Achievements:

- A new diagnostic facility called Line Probe Assay (LPA) has been established in new research block to detect resistance to Rifampicin in 48 hours. This is likely to help in rapid diagnosis of TB Patients. A training was conducted under FIND project in this regard following which internal proficiency test has been completed.
- Institute facilitated the process of the National DOTS-PLUS guidelines for programmatic management of MDR-TB patients.
- A first of its kind in the country, New MDR-TB wards have been constructed with latest technology and have started functioning.
- The Institute has now become a regular DOTS-Plus site for the state of Delhi under the National Programme. The Institute is extending its services and activities to become one of the four DOTS-Plus sites under RNTCP that will cover nearly 40 lakh population of Delhi and the national reference laboratory of the Institute will extend logistic support for the culture and DST facilities for half of the population of Delhi to detect MDR TB patients. The Institute, being one of the NRLs, is supervising the IRL activities over 8 states of India that includes areas in the North East. Under its guidance, the NDTB center was accredited as an IRL.
- A state of art BSL-III laboratory, MGIT system and RT-PCR machine have been functioning.
- A newsletter of the Institute is being published regularly every three months for circulation among the professional colleagues.
- A number of high end equipments for patient care and research were procured for various departments.
- Institute is now admitting 10 students for DNB degree course following approval as against the 6 students earlier.
- Emergency services have been functioning round the clock now along with facilities for X-ray, ECG and laboratory services.
- Digital X-ray is being provided free of cost to the patients through computed radiography system installed in Radiology Department.
- Institute is responsible for conducting the national Annual Risk of T.B. infection Survey in eastern region of the country.
- A block of 30 staff quarters (Type-A) has been constructed.

15.39. NATIONAL INSTITUTE OF MENTAL HEALTH AND NEURO SCIENCES, (NIMHANS), BANGALURU

The National Institute of Mental Health and Neurosciences, a multidisciplinary Institute for patient care and academic pursuit in the frontier areas of Mental Health and Neurosciences has strived too hard to maintain the mission of delivering prompt and appropriate patient care, develop man power and carryout the research in areas of natural relevance in behavioral, clinical and basic neuroscience. During this period of review from April 2009 to 31st March 2010, Dr.D.Nagaraja was the Director/Vice Chancellor till 31st January 2010. After completing his terms of appointment, Ministry of Health and Family Welfare, Govt. of India has appointed Dr.S.K.Shankar, Dean Clinical Neurosciences as In-charge Director/Vice Chancellor, till the appointment of full time Director/Vice Chancellor. Dr.Shankar ensured continuity of service, academic and scientific philosophy of the Institute with equal opportunity to all.

Hospital Services

NIMHANS as a secondary and tertiary care hospital in the fields of Psychiatry, Neurology and Neurosurgery and allied diagnostic specialities, rendered service to the patients from all over the country as well as neighbouring developing SAARC, Arabic and African Countries. During the year 2009-10, patients numbering 3,97,666 have been treated.