

Chapter 6

Analysis of Non- Communicable Diseases Group Institutes

6.0 List of institutes under Non-Communicable diseases group

1. National Institute of Epidemiology (NIE) ,**CHENNAI**
2. Institute of Cytology and Preventive Oncology (ICPO) ,**NOIDA**
3. Desert Medicine Research Centre ,**JODHPUR**
4. Regional Medical Research Centre, **BELGAUM**

The data from the following institutes/labs has not been received:

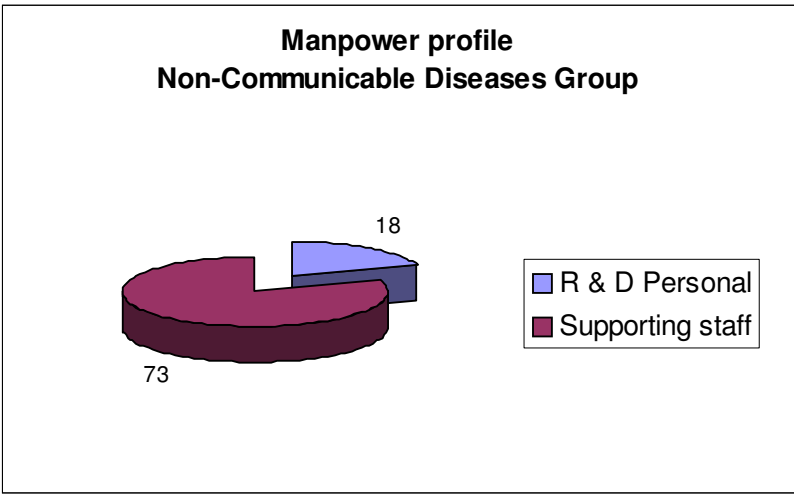
1. Institute of Cytology and Preventive Oncology (ICPO) ,**NOIDA**
2. Desert Medicine Research Centre ,**JODHPUR**

6.1 Overall analysis of institutes under the Non-Communicable diseases group

6.1.1 Manpower Profile

The four institutes categorized in the Non-Communicable Diseases group cover varied areas of research. The figure 6.1 below presents the manpower profile in terms of R&D personal and supporting staff of the 2 institutes/labs of Non-Communicable Diseases group out of a total of 4 who have supplied the data.

Figure 6.1



6.1.2 Core Competency wise Manpower of the Non-Communicable Diseases Group Institutes are given in Table 6.1

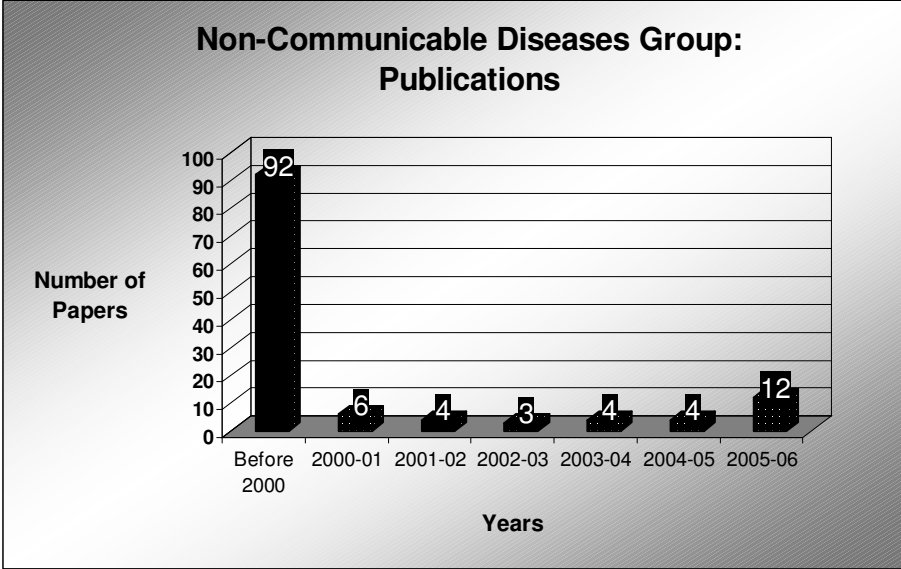
Table– 6.1

Non-Communicable Diseases Group				
Core Competency wise Manpower of various Institutes				
S. No.	Name of laboratory	Area of Core Competency	Manpower (in Numbers)	
			R&D Personal	Supporting Staff
1.	National Institute of Epidemiology (NIE) , CHENNAI	Field Epidemiology Training Programme (FETP)	17	71
		Research studies/surveys		
		Clinical trials		
		Consultancy in Epidemiology and Biostatistics		
2.	Regional Medical Research Centre, BELGAUM	Primate biology /Ethnomedicobotany/screening bioactivities of plant products	1	0
		Statistics/epidemiology	0	2
		Total	18	73

6.1.3 Papers

The following figure 6.2 represents the total number of papers published by the 2 institutes/labs out of 4 institutes in the Non-Communicable Diseases group from 2000 to 2006.

Figure 6.2



6.2 Analysis of individual institutes under the Non-Communicable diseases group

6.2.1 National Institute of Epidemiology (NIE) ,CHENNAI

The National Institute of Epidemiology (NIE) was established on July 2, 1999 by merging the CJIL Field Unit, Avadi with the Institute for Research in Medical Statistics (IRMS), Chennai. The broad objectives of the Institute cover Development of human resources in epidemiology and bio-statistics, Networking of the various ICMR and non-ICMR Institutes at the national level for epidemiological purposes, and Consultancy.

The Institute has the distinction of being the WHO Collaborating Centre for Epidemiology of Leprosy and identified as a Technical Resource Group for Epidemiology of HIV by National AIDS Control Organization.

The Institute carries out a variety of research activities which include areas such as interventional studies, disease modeling, health systems research, evaluation of health schemes and disease control programmes, issues of statistical methodology, epidemiological investigations and clinical trials of traditional remedies.

The Institute is recognized by the Sree Chitra Tirunal Institute of Medical Sciences and Technology (Deemed University), Thiruvananthapuram for the 2-year Field Epidemiology Training Programme (FETP-INDIA) leading to Master of Applied Epidemiology (MAE) degree. The Institute has been conducting training programmes annually in bio-statistics, controlled clinical trials and basic epidemiology for medical doctors, PG medical students and para-medical workers. It also conducts WHO-SEARO 10 day regional workshops on Surveillance, Epidemic preparedness and Response periodically.

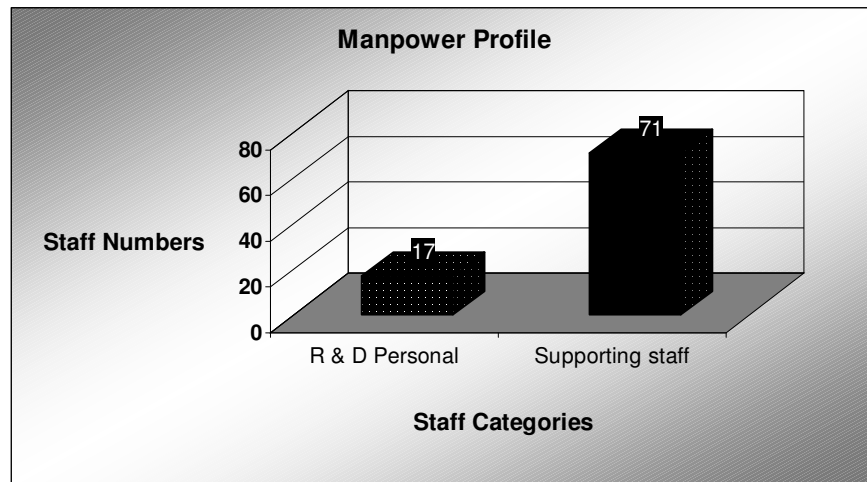
The Institute is recognized by the University of Madras for research leading to Ph. D degree in the areas of epidemiology and bio-statistics.

The Institute has expertise in the areas of bio-statistics, epidemiology, epidemiology of communicable diseases namely leprosy, tuberculosis and other diseases, controlled clinical trials, maternal and child health, health surveys, data processing etc. The Institute has a good library, a well equipped computing facility and a field practice area covering well characterized 5, 00,000 population.

6.2.1.1. Manpower profile

The following figure 6.3 depicts the manpower profile of NIE

Figure 6.3



6.2.1.2. Areas of Core Competency

The following Table 6.2 gives the available manpower data in the identified areas of core competency of the institute.

Table 6.2

S.No	Area	Manpower (Nos.)	
		<i>R & D Personal</i>	<i>Support staff</i>
1.	Field Epidemiology Training Programme (FETP)	17	71
2.	Research studies/surveys		
3.	Clinical trials		
4.	Consultancy in Epidemiology and Biostatistics		

6.2.1.3. Major R&D Facilities

The following Table 6.3 gives various R&D facilities support the above areas of competency:

Table 6.3

S.No	Area	Facilities
1.	Field Epidemiology Training Programme (FETP)	Training facilities, Operational research facilities for doctors, Consultancy Services, Studies, Surveys and Clinical trials.
2.	Research studies/surveys	
3.	Clinical trials	
4.	Consultancy in Epidemiology and Biostatistics	

6.2.1.4 Number of collaborations

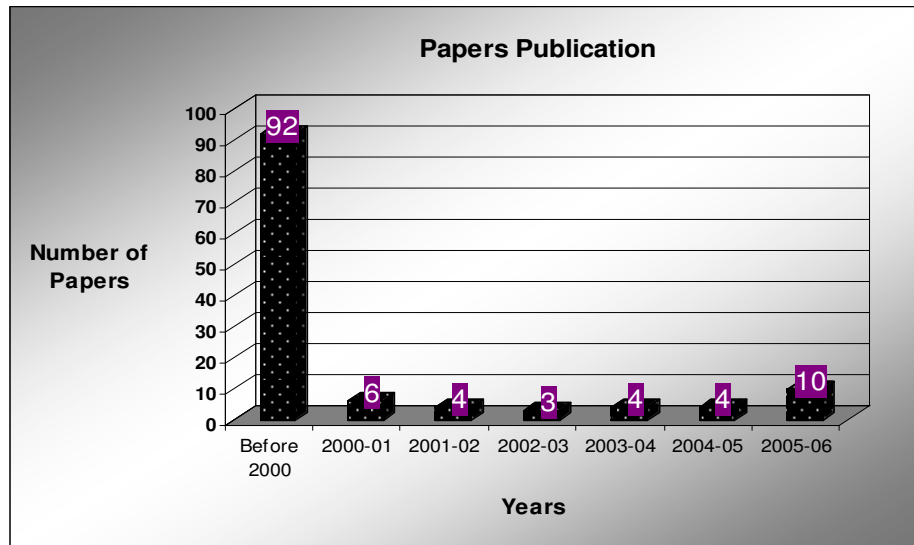
The NIE has recognized following accreditations and collaborations:

1. **International**: National Institute of Epidemiology (NIE) is identified as WHO Collaborating centre for Epidemiology of Leprosy.
2. **National**: NIE is identified as a Technical Resource Group for Epidemiology of HIV by National AIDS Control Organization.
3. **National**: NIE is recognized by the Sree Chitra Thirunal Institute of Medical Sciences and Technology (Deemed University), Thiruvananthapuram for the 2-Year Field Epidemiology Training Programme(FETP) in India leading to Master of Applied Epidemiology (MAE) degree.
4. **National**: NIE is recognized by the University of Madras for Research leading to Ph.D degree in areas of Epidemiology and Biostatistics

6.2.1.5. Papers

The following figure 6.4 gives the details of the number of papers published by NIE during 2000 and 2006:

Figure 6.4



(For details about the publications of NIE, refer institute website)

6.2.1.6. Potential Exportable R & D services

NIE has identified the following as their potential exportable R&D services:

- a. Type of R & D services offered
 1. Training
 2. Studies
 3. Surveys
 4. Contract Research
 5. Specialized facilities / services
 6. Clinical Trials

- b. Description of R & D service offered
 - A. INTERVENTIONAL STUDIES
 1. Comparative leprosy vaccine trial in South India
 2. Single dose therapy for single-lesion PB leprosy cases
 3. Controlled field trial of Efficacy of Vitamin A supplementation in infants
 4. Controlled field trial for two antenatal care packages.

B. DISEASE MODELLING

1. Simulation model for leprosy transmission and control

C. HEALTH SYSTEMS RESEARCH

1. LQAS technique for monitoring national programmes
2. Testing of WHO design for LEM activities
3. Evaluation of National Leprosy Eradication Programme – 2000
4. Estimation of immunization coverage

D. TRADITIONAL MEDICINE RESEARCH

1. Kshaarasootra in the management of fistula-in-ano
2. Vijayasar for newly diagnosed NIDDM patients

E. METHODOLOGICAL STUDIES

1. Implications of misdiagnosis in field trials of vaccines
2. Impact of BCG vaccination on the efficacy of antileprosy vaccines
3. Sample size estimation for comparing two proportions
4. Confidence intervals in medical research
5. Index of nutritional status in children aged 5-10 years.

F. MANPOWER DEVELOPMENT

1. Field Epidemiology Training Programme (FETP) – India.
2. Surveillance, Epidemic Preparedness and Response (SEPR) workshops.
3. Training programme on controlled clinical trial
4. Basic Course in Statistics for Medical Doctors

6.2.1.7. Constraints & Suggestions

NIE highlighted Lack of resources (For More resources, there will be more capacity building and thereby more useful programs/studies can be taken up to fulfill the goals and objectives of the institute) as the constraints that they faced in providing R & D services in India as well as abroad. It was suggested that

availability of suitable resources, capacity building and manpower development can help to overcome these constraints for enhancing exports of R&D Services.

6.2.2. Institute of Cytology and Preventive Oncology (ICPO) ,NOIDA

Institute of Cytology & Preventive Oncology (ICPO) which was initially established as Cytology Research Centre (CRC) by the Indian Council of Medical Research (ICMR) in 1979, came into the existence in 1989 when CRC was elevated to the level of Institute. ICPO was instituted with the main aim of promoting research in the field of cancers that are most prevalent in India with an emphasis on their early detection and prevention. The thrust areas of research include precancer and cancer of the uterine cervix and breast in women. Multidisciplinary studies involving epidemiological, behavioral, clinical, cytomorphological, cytogenetic, biochemical, virological, immunological and molecular biological aspects are being undertaken in order to understand the natural history, biological behaviour and mechanisms of carcinogenesis. ICPO has since made significant contributions in the field of cervical cancer research. The concept of clinical downstaging, visual inspection of cervix with selective cytology screening and development of novel diagnostic approaches for screening HPV and other cancer causing and cancer suppressor genes have been introduced for early detection of cervical cancer. Transcriptional control of viral gene expression and preparatory work on HPV vaccine, analysis of breast cancer susceptibility genes are some of the major research areas being undertaken. ICPO is also promoting human resource development through in-service training, workshops, Ph.D. and M.D. program and referral services in the field. The institute has evolved as a National Reference Centre for HPV and cervical cancer and provides specialized diagnostic referral services.

6.2.3. Desert Medicine Research Centre, JODHPUR

Desert constitutes about one seventh of the globe land surface. In India about 70% of its arid zone lies in the state of Rajasthan. In Rajasthan, 60% of its area is desert and 40% of the total population resides there with population density ranging from 6-178 people per square kilometer.

Desert is characterized by extremes of temperature, scanty rainfall and low vegetation and less availability of water for drinking and irrigation.

Realizing the health needs and health problems of the desert population, Indian Council of Medical Research established the Desert Medicine Research Centre at the land allotted by the State Government.

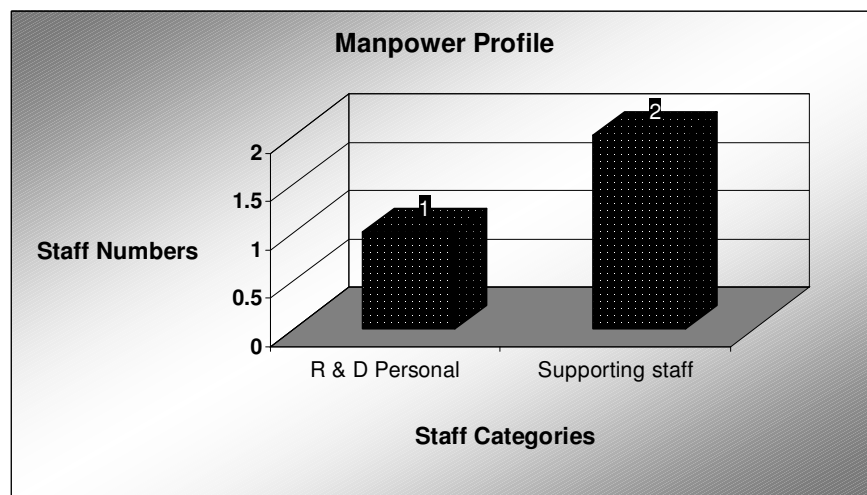
The institute is established with a objective to promote research into health problems of the desert population, to promote research into human adaptation to hostile extremes of the climate, to develop health surveillance and monitoring system, also taking into account of various development activities, to develop an alternate system of the health care delivery system, to build-up technical health manpower in this region, to interact with local agencies and health authorities to help them to find solution to health problems in the region.

6.2.4. Regional Medical Research Centre, BELGAUM

6.2.4.1. Manpower profile

The following figure 6.5 depicts the manpower profile of RMRC, Belgaum

Figure 6.5



6.2.4.2. Areas of Core Competency

The following Table 6.4 gives the available manpower data in the identified areas of core competency of the institute.

Table 6.4

S.No	Area	Manpower (Nos.)	
		R & D Personal	Support staff
1.	Primate biology /Ethnomedicobotany/screening bioactivities of plant products	1	0
2.	Statistics/epidemiology	0	2

6.2.4.3. Major R&D Facilities

The RMRC, Belgaum have Phytochemistry Lab that support the above areas of competency as R&D facilities

6.2.4.4. Number of collaborations/ Affiliations

1. BMK Ayurveda Mahavidyalaya, Shahapur ,Belgaum
2. KLES College of Pharmacy Belgaum
3. J.N Medical College , Belgaum
4. KLES Hospital and Medical Research Centre ,Belgaum
5. Institute of Immunohaematology (ICMR) , Mumbai

6.2.4.5. Potential Exportable R & D services

RMRC, Bhubaneswar has identified the following as their potential exportable R&D services:

- a. Type of R & D services offered
 1. Consultancy services
 2. Surveys
 3. Supply of information/database

6.2.4.6. Papers

The number of papers published by RMRC, Belgaum during 2000 and 2006 are two only.

6.2.4.7. Constraints & Suggestions

RMRC, Belgaum highlighted Lack of market information, inadequate market capabilities, lack of resources (Manpower, Funding) as the constraints that they faced in providing R & D services in India as well as abroad. It was suggested that following could help to overcome these constraints for enhancing exports of R&D Services:

1. Increasing the number of manpower in the relevant discipline.
2. Collaborating with other agencies in areas of mutual interest.