



# **Annual Report 2015-16**

**DEPARTMENT OF HEALTH RESEARCH**  
**Ministry of Health & Family Welfare**  
**Government of India**  
**New Delhi**

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सत्यमेव जयते

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**Ministry of Health & Family Welfare**  
**Government of India**  
**New Delhi**  
**<http://www.dhr.gov.in>**

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# Introduction

## 1 CHAPTER

The Department of Health Research (DHR) was created as a separate Department within the Ministry of Health & Family Welfare by an amendment to the Government of India (Allocation of Business) Rules, 1961 on the 17th Sept, 2007. The Department became functional from November 2008 with the appointment of first Secretary of the Department.

The aim of the DHR is to bring modern health technologies to the people through research and innovations related to diagnosis, treatment methods and vaccines for prevention; to translate them into products and processes and, in synergy with concerned organizations, introduce these innovations into public health system.

The following 10 functions (nine new functions, plus the ongoing function of administering the ICMR) have been allocated to the Department of Health Research:

1. Promotion and co-ordination of basic, applied and clinical research including clinical trials and operational research in areas related to medical, health, biomedical and medical profession and education through development of infrastructure, manpower and skills in cutting edge areas and management of related information thereto.
2. Promote and provide guidance on research governance issues, including ethical issues in medical and health research.
3. Inter-sectoral coordination and promotion of public - private - partnership in medical,

biomedical and health research related areas.

4. Advanced training in research areas concerning medicine and health, including grant of fellowships for such training in India and abroad.
5. International co-operation in medical and health research, including work related to international conferences in related areas in India and abroad.
6. Technical support for dealing with epidemics and natural calamities.
7. Investigation of outbreaks due to new and exotic agents and development of tools for prevention.
8. Matters relating to scientific societies and associations, charitable and religious endowments in medicine and health research areas.
9. Coordination between organizations and institutes under the Central and State Governments in areas related to the subjects entrusted to the Department and for the promotion of special studies in medicine and health.
10. Administering and monitoring of Indian Council of Medical Research.

With a view to fulfil its mandate of nine new functions, the DHR had formulated following five new schemes and all these schemes have since been approved and rolled out in 2013-14:

1. Establishment of Network of Research

Laboratories for Managing Epidemics and Natural Calamities.

2. Establishment of Multidisciplinary Research Units (MRUs) in Govt. Medical Colleges
3. Establishment of Model Rural Health Research Units (MRHRUs) in the States.
4. Human Resource Development for Health Research.
5. Grants in Aid scheme for inter- sectoral convergence & promotion and guidance on research governance issues.

During the year under review, the Department made significant progress in the implementation of the aforesaid schemes. A total of 9 MRUs, 12 Viral Research & Diagnostic Labs (3 State Level Labs and 9 Medical College Level Labs) were approved during the year. With the aforesaid addition, the cumulative coverage has reached 70 MRUs, 12 MRHRUs and 63 VRDLs (5 Regional Labs, 14 State Level Labs and 44 Medical College Level Labs).

Funds have been released in respect of 52 MRUs, 12 MRHRUs and 36 VRDLs. Besides this, 39 fellowships for training in India and abroad and support to 5 Institutes and 6 conferences was approved under the HRD Scheme on Health Research. A total of 41 research projects were also approved under the GIA Scheme up to January 2016. A total of 19 MRUs in the medical colleges and 8 MRHRUs have already initiated research activities. These schemes are largely helping in building up a strong and effective eco-system for carrying out health research in the country and for introduction of new technologies, new methods of treatment and products/processes into the public health system.

The Department has also been working on bringing suitable legislations aimed at (i) regulating ethical issues pertaining to biomedical and health research, (ii) regulating medical, social, ethical and legal aspects of surrogacy and (iii) assisted reproductive technology services in the country, and also for regulating the processes for recognition of any proposed alternative systems of medicine.

## Administration and Finance

## 2 CHAPTER

The Department is functioning with a very small component of staff. While six posts were transferred from the Department of Health & Family Welfare (DoHFW) to this new Department, sixteen additional posts, in different grades, were subsequently created in this Department with the approval of the Department of Expenditure. The latest status regarding the sanctioned strength of the Department and the number of posts filled so far is as under:

**Table (1)**

Sl. No.	Name of post	No. of posts transferred from DoHFW	No. of addl. Posts created	Total sanctioned strength	No. of posts filled
1.	Jt. Secretary	1	1	2	2
2.	Director/Deputy Secretary	1	1	2	2
3.	Scientist 'E'	0	1	1	0
4.	Under Secretary	1	1	2	3
5.	Scientist 'C'	0	2	2	0
6.	Section Officer	1	2	3	3
7.	Assistant	1	4	5	5
8.	Private Secretary/Stenographers	0	4	4	4
9.	Upper Division Clerk (UDC)	0	0	0	1
10.	Lower Division Clerk/MTS	1	0	1	1
	<b>Total</b>	<b>6</b>	<b>16</b>	<b>22</b>	<b>21</b>

The position of filing up of posts is as follows:

- Scientists:** The posts of Scientist 'E' and Scientist 'C' can be filled up only after the Recruitment Rules for these posts are approved & notified. The RRs approved by the DoPT have been referred to the Union Public Service Commission for approval.
- Secretariat Posts:** The cadre controlling authority for the Department of Health Research is the Department of Health & Family

Welfare and, therefore, actual posting of officers/staff is first made by Department of Personnel & Training to the Department of Health & Family Welfare and, thereafter, further postings are made by that Department to Department of Health Research. The Project Management & Implementation Units (PMIUs) have been established in the Department for effective implementation of all the five schemes rolled out during the year 2013-14. The establishment matters of the Department of Health Research are handled



by the Department of Health & Family Welfare alongwith other support functions such as Budget, Cash, Official Language matters, PAO etc.

3. **Additional Posts:** Steps have also been initiated by Department of Health Research for augmentation of its existing strength by way of creation of additional posts.
4. **Grievance Redressal Mechanism:** DHR has grievance redressal mechanism in place with Deputy Secretary, DHR as the Nodal Officer for the purpose. During the year 2015-16, no grievance was received from any official of the Department.
5. **Constitution of complaints committees for Prevention of Sexual Harassment of women in work places:** Department has set up complaint redressal mechanism to prevent sexual harassment of women in the working places of the DHR with four member committee. One complaint was received during the year from the Bhopal Memorial Hospital & Research Centre.
6. **E-Governance Initiatives:** In order to promote and strengthen ICT enabled e-Governance in the country, Department of Health Research has taken several initiatives to digitize certain activities, as follows:
  - DHR has established Local Area Network (LAN) connectivity through NIC and leased line circuits, to facilitate speedy implementation of e-Governance Policy of Government.

- In respect of the 5 newly launched schemes, action will be taken to develop web-based softwares for Physical and Financial monitoring of the schemes.
- Module for online monitoring of the 'Grant-in-Aid Scheme for Inter-sectoral convergence & coordination for promotion & Guidance on Health Research' has already been developed and made functional. Facility in the portal has also been provided for online submission of research proposals, both under the GIA Scheme as well as under the scheme of 'Establishment of Multi-Disciplinary Research Units (MRUs) in the Govt. Medical Colleges'. Department's website is being redesigned with add-on features to incorporate all requisites of the standard Govt. of India Guidelines for Websites (GIGW).
- Department has implemented the AADHAR based Biometric Attendance System (BAS) wherein all employees are marking their attendance on digital devices.

#### Finance:

##### (i) Allotment:

The Approved outlay for the 12th Plan for the Department is Rs. 10029 Crores. Out of the approved allocation of Rs. 10029 Crores, an allocation of Rs.5259 Crores has been earmarked for the schemes/programmes of Department of Health Research and Rs. 4770 Crores for the various activities/programmes of ICMR. The scheme-wise allocations are as follows:

**Table (2)**

(Rs. in crores)

S. No.	Schemes	12th Plan Outlay (2012-17)	Approved project Cost as per EFC/CCEA	Budgetary Allocation i.e. BE for 2012-13 to 2015-16
1.	HRD scheme of DHR	812.00	597.00	97.00
2.	MRU in State Medical Colleges	1118.00	503.83	209.50
3.	MRHRU in the States	246.00	67.66	50.00



4.	Establishment of a Network of laboratories for Managing Epidemics and Natural Calamities	1084.00	646.00	160.00
5.	Grant-in-Aid scheme of DHR	1953.00	1242.00	138.50
6.	Grant-in-Aid to ICMR	4770.00	4770.00	2148.17
7.	Governance and departmental expenses	46.00	46.00	22.00
	Total	10029.00	7872.49	2825.17

**(ii) Expenditure:**

The actual expenditure incurred by the Department during 2014-15 and 2015-16 under Plan was as under:

**Table (3)**

(Rs. in crores)

Particulars	2014-15			2015-16		
	BE	RE	Actual	BE	RE	Actual (upto January, 2016)
DHR	145.00	105.00	103.91	145.00	110.86	61.76
ICMR	568.17	505.00	486.74	568.17	556.74	523.34
Total	713.17	610.00	590.65	713.17	667.60	585.10

A statement indicating the BE/RE (2015-16) and actual expenditure upto January, 2016 under Plan and Non-Plan and BE (2016-17) under Plan and Non-Plan is given at **Annexure-I**

**Monitoring & Evaluation of the Schemes**

A strong and effective mechanism for implementation, monitoring and evaluation of the physical, financial and research programmes of the schemes is already provided in the structure of the schemes. Project Management and Implementation & Units (PMIUs) have been established in the DHR and ICMR with requisite administrative and scientific support staff for periodic monitoring of the progress of implementation of the schemes with reference to the outcomes and deliverables expected to be achieved under each scheme.

Teams have been constituted for undertaking field visits for onsite review of the progress of implementation of the schemes- establishment of Multi-Disciplinary Research Units (MRUs) in the Govt.

Medical Colleges; Model Rural Research Units in the States and Virology Diagnostic & Research Labs. The teams also provide guidance and suggestions to the concerned medical colleges/institutions for addressing the problems and bottlenecks faced by them in executing the schemes.

Review Meetings are held by Secretary, DHR from to time with the stakeholders, namely, the representatives of the State Health Departments, Principals/ Nodal Officers of the medical colleges, subject area experts, etc for detailed review of the progress of implementation of the schemes.

Action has also been initiated to develop web-based software for online physical and financial monitoring in respect of all the 5 schemes.

**Audit Observations:**

There was no Audit Para pertaining to the Department of Health Research (DHR) during the year.

**Schemes of Department of  
Health Research (DHR)**

## NETWORK OF RESEARCH LABORATORIES FOR MANAGING EPIDEMICS AND NATURAL CALAMITIES

### 3 CHAPTER

Diagnosis of viral diseases is a major problem in most parts of country and outbreaks of new viral agents is a common phenomenon. The inadequacy of specialized laboratories in the country especially at secondary and tertiary level has been noticed in the past as well as during the H1N1 crises that gripped the nation. In the context of biological agents being used as weapons for man-made disaster as well as outbreaks of new viral agents, it is considered necessary to establish a network of laboratories for viral diagnosis. Such a network and active research programme is needed to generate evidence for interventions for various viral infections which are endemic to the country. With National Centre for Disease Control (NCDC) and National Institute of Virology (NIV), acting as the apex laboratories for surveillance and research respectively for this purpose, it is considered essential to establish a network of laboratories across the country. These labs will supplement the activities of the Integrated Disease Surveillance Project (IDSP) coordinated by NCDC, Delhi with special focus on viruses and will also be expected to deal with all common viruses such as the following:

1. Viruses Transmitted by Respiratory Route: Measles, Rubella, Mumps, Influenza viruses (A, B and C), Parainfluenza virus, Adenoviruses, Respiratory Syncytial Virus, Rhinoviruses, Polio, Coronaviruses.
  2. Viruses Transmitted by Intestinal Route: Hepatitis A, E, Rotavirus, Astroviruses, Calciviruses, Norwalk viruses, Enteroviruses.
  3. Vector Borne Disease Viruses: Dengue, Chikungunya, Japanese Encephalitis, West Nile, Kyasanur Forest Disease, Chandipura.
  4. Zoonotic Viruses: Rabies, Nipah virus, Hanta Virus
  5. Viruses Transmitted by Body Fluids: HIV, Hepatitis B and C.
2. Priority will be given to develop infrastructure and expertise for diagnosis of viruses with a potential to cause outbreaks and/or which are responsible for significant disease burden like Measles, Influenza viruses (A, B and C), Respiratory Syncytial Virus, Polio, Hepatitis A, E, Rotavirus, Enteroviruses, Dengue, Chikungunya, JE etc. These laboratories will be expected to develop expertise for diagnosis of specific viruses circulating in their geographic area.
  3. To cope with the emergent situation and urgent need for Virology Diagnostic facilities in the wake of outbreaks & endemic viral infections, ICMR had started a Virology Diagnostic Laboratory (VDL) Network Programme in 2009-10 in the *ad hoc* extramural mode, with the provision of providing funds by the ICMR with regard to infrastructure development and running of the VDL for a period of five years. Thereafter, the State Government/Health Authorities were required to take over the facility (including its trained manpower) and maintenance at end of the project period.

#### Ongoing laboratories under the ICMR System

Six Grade-I laboratories and four Grade-II Laboratories under ICMR system as per details given in Table (4) below:

Table (4)

S.No.	Name of the Centre	Grade	Date of Inception of Lab
1.	Regional Medical Research Centre, Bhubaneswar (to be terminated in March 2016)	I	March 2010
2.	Regional Medical Research Centre, Port Blair	I	March 2010
3.	Kasturba Medical College, Manipal	I	March 2010
4.	National Institute of Virology Field Unit, Allapuzha (to be terminated in March 2016)	I	March 2011
5.	Rajiv Gandhi Centre for Biotechnology, Thiruvanthapuram (to be terminated in March 2016)	I	March 2011
6.	King's Institute of Preventive Medicine, Chennai	I	Dec. 2011
7.	Rajendra Memorial Research Institute of Medical Sciences, Patna	II	Dec.2011
8.	Regional Medical Research Centre for Tribals, Jabalpur	II	Dec.2011
9.	Rajendra Institute of Medical Sciences, Ranchi	II	Dec.2011
10.	Andhra Medical College, Visakhapatnam	II	Dec.2011

#### **Establishment of a network of Viral Research & Diagnostic Laboratory (VRDLs) under the DHR Scheme**

4. Concurrent establishment of new VRDL labs as well as Review of progress of established labs at completion of two & four years is undertaken by senior experts of ICMR on a regular basis. Most of the functional VRDLs are now well established with basic diagnostic techniques for viruses and are generating data from their respective centres. DHR envisages involving all VRDLs in well-planned epidemiological studies related to viruses of national relevance to bring out data representative of the entire nation. Uniform Protocols/SOP's/Trainings/Quality Assurance/Quality Control methods will be followed by all the Laboratories.
5. While ICMR initiated the programme in a research project mode and its centers have contributed immensely, Department of Health Research developed a new scheme to cover the entire country. The scheme rolled out in 2013-14 envisages establishment of three tier laboratories - 10 Regional Labs, 30 State level

Labs and 120 Medical College Level Labs in the State Government Medical Colleges for timely diagnosis and management of viral epidemics and new viral infections during the 12th Plan period, at an estimated cost of Rs. 646.83 crores. The geographic spread of the labs will be taken care of while establishing the labs, to cover the entire country and the States not having any medical college will be linked to the labs in the nearby States/area.

#### **Objectives**

- Create infrastructures for timely identification of viruses and other agents causing significant morbidity at public health level and specific agents causing epidemics and/ or potential agents for bioterrorism.
- Develop capacity for identification of novel and unknown viruses and other organisms & emerging/re-emerging viral strains and develop diagnostic kits.
- Provide training to health professionals.
- Undertake research for identification of emerging and newer genetically active/ modified agents.

6. The expenditure on the establishment of labs at the State level and at the Medical Colleges would be shared between the Central Government and State Governments in the ratio of 75:25 (90:10 in respect of North-Eastern, Hilly States, including Sikkim and J&K). Expenditure on the Regional Labs would, however, be fully borne by the Central Government.

### Funding Norms

**Regional Labs:** The Non-recurring cost of a Regional Level Lab is about Rs. 15.00 crores for the development of infrastructure, which include civil works (Rs.4.20 crore), furnishing & furniture (Rs.50 lakh) and equipment (Rs.10.25 crore). The recurring cost of Regional Lab per annum is Rs 81 lakhs, towards staffing (Rs.46 lakh), Consumables & Contingencies and Training (Rs.35 lakhs).

**State Level Labs:** About Rs.3.9275 crores, comprising upto Rs.50 lakhs under civil works mainly for renovation/modification of the buildings and Rs.3.4275 crore for equipments. In addition, recurring expenditure of about Rs.50 lakh per Lab for engaging trained technical man power on contractual basis and expenses on training, consumables and contingencies.

**Medical College Level Labs:** About Rs. 1.7390 crore, including Rs. 1.4390 crore for equipment and civil works /renovation of building and recurring expenditure of Rs.30 lakhs per annum, comprising expenses on staffing, consumables & contingencies and training.

### Requirements from the States

- Allocating a building on the premises of a medical college / institution for the establishment of the Viral Research & Diagnostic Lab (VRDL) or to provide space of mutually agreed dimensions (approx. 250-300 sq. meters for State Level Lab and

approx.200-300 sq. meters for Medical College Level Lab), free of cost, in existing premises for the establishment of the VRDL.

- To sign MoA with the DHR.
- Deputing a mutually agreed number of its personnel to work in the VRDL.
- Deputing personnel (including those belonging to the State Health Service) to undergo training/ attend workshops at the VRDL.
- Sharing of expenditure on the establishment of labs at the State level and at the Medical Colleges Levels between the Central Government and State Governments in the ratio of 75:25 (90:10 in respect of North-Eastern, Hilly States, including Sikkim and J&K). The cost of land/ building to be provided by the Government will be reckoned towards its contribution.

### Status of Implementation

- 12 Viral Research & Diagnostic Labs (3 State Level Labs and 9 Medical College level labs) were approved during the year 2015-16 (Till January 31, 2016). With the aforesaid addition, the cumulative coverage has reached 63 VRDLs (5 Regional Labs, 14 State Level Labs and 44 Medical College Level Labs).
- However, funds have been released in respect of 36 VRDLs only (5 Regional Labs, 10 State level labs and 21 Medical College level labs) upto January, 2016.
- Against the BE provision of Rs. 46.00 crores and RE provision of Rs. 45.00 crores under Plan during 2015-16, expenditure upto January, 2016 is Rs. 21.81375 crores.
- List of VRDLs sanctioned till January, 2016 is given in the table (5) below

**Table (5)****DHR VRDLs FUNDED TILL DATE****Regional VRDLs:**

1. Post Graduate Institute of Medical Education & Research, Chandigarh
2. Regional Medical Research Centre, Dibrugarh, Assam
3. All India Institute of Medical Sciences, Bhopal, Madhya Pradesh
4. ICMR Virus Unit, National Institute of Cholera & Enteric Diseases, Kolkata, West Bengal
5. JIPMER, Puducherry

**State Level VRDLs:**

6. B.J. Medical College, Ahmedabad, Gujarat
7. Indira Gandhi Medical College, Shimla, Himachal Pradesh
8. Sher-e-Kashmir Institute of Medical Sciences, Srinagar, Jammu & Kashmir
9. NEIGRIHMS, Shillong, Meghalaya
10. Bangalore Medical College & Research Institute, Bangalore, Karnataka
11. Gauhati Medical College, Gauhati, Assam
12. SMS Medical College, Jaipur, Rajasthan
13. KGMU, Lucknow, Uttar Pradesh
14. Government Medical College, Kozhikode, Kerala
15. SCB Medical College, Cuttack, Odisha

**Medical College Level VRDLs:**

16. Osmania Medical College, Hyderabad, Telangana
17. Govt. Medical College, Jammu, Jammu & Kashmir

18. Patna Medical College, Patna, Bihar
19. Govt. Medical College, Amritsar, Punjab
20. Pt. BD Sharma Post Graduate Institute of Medical Education & Research, Rohtak, Haryana
21. M.P. Shah Govt. Medical College, Jamnagar, Gujarat
22. Government Medical College, Theni, Tamil Nadu
23. LSBK Memorial Govt. Medical College, Jagdalpur, Chattisgarh
24. Government Medical College, Mysore, Karnataka
25. Madurai Medical College, Madurai, Tamil Nadu
26. Sri Venkateshwar Institute of Medical Sciences, Tirupati, Andhra Pradesh
27. Dr. Rajendra Prasad Government Medical College, Tanda, Himachal Pradesh
28. Siddhartha Medical College, Gunadala, Vijayawada, Andhra Pradesh
29. Govt. Medical College, Patiala, Punjab
30. Indira Gandhi Medical College, Nagpur, Maharashtra
31. Government Medical College, Trivandrum, Kerala
32. S N Medical College, Jodhpur, Rajasthan
33. Uttar Pradesh Rural Institute of Medical Sciences & Research, Saifai, Etawah, Uttar Pradesh
34. Govt. Medical College, Haldwani, Uttarakhand
35. Government Medical College, Agartala, Tripura
36. JNIMS, Imphal, Manipur



**LIST OF VRDLs APPROVED BY DHR BUT NOT YET FUNDED DUE TO  
NON-COMPLETION OF REQUISITE CODAL FORMALITIES**

S.No	List of Viral Research & Diagnostic Labs (VRDLs)
	<b>State level Labs</b>
1.	Regional Institute of Medical Sciences, Imphal, Manipur
2.	Coimbatore Medical College, Coimbatore, Tamil Nadu
3.	Gandhi Medical College, Secunderabad, Telangana
4.	Institute of Medical Sciences, BHU, Varanasi, Uttar Pradesh
	<b>Medical College Level Labs:</b>
1.	Sarojini Naidu Medical College & Hospital, Agra, Uttar Pradesh
2.	GSVM Medical College, Kanpur, Uttar Pradesh
3.	Silchar Medical College, Assam
4.	Government Medical College, Miraj, Sangli, Maharashtra
5.	Government Medical College & Hospital, Chandigarh
6.	Kakatiya Medical College, Nizampura, Warangal, Telangana
7.	R G Kar Medical College & Hospital, Kolkata, West Bengal
8.	IPGMER, Kolkata, West Bengal
9.	Vijaynagar Institute of Medical Sciences, Bellary, Karnataka ( <i>taken up by Karnataka Government</i> )
10.	S.K Medical College, Muzzafarpur, Bihar
11.	Darbhanga Medical College, Darbhanga, Bihar
12.	M.G.M Medical college, Indore, Madhya Pradesh
13.	Government Medical College, Thissur, Kerala
14.	J.N Medical college, Aligarh, Uttar Pradesh
15.	Tirunelveli Medical College, Tirunelveli, Tamil Nadu
16.	Govt. Mohan Kumaramanglam Medical College, Salem, Tamil Nadu
17.	RNT Medical College, Udaipur, Rajasthan
18.	Hassan Institute of Medical Sciences, Hassan, Karnataka
19.	MGM Medical College, Jamshedpur, Jharkhand
20.	Rajendra Institute of Medical Sciences, Ranchi, Jharkhand
21.	BPS Govt. medical College, Sonapat, Haryana
22.	Rajeev Gandhi Institute of Medical Sciences, Kadapa, Andhra Pradesh
23.	Government Medical College, Anantpur, Andhra Pradesh



**As many as 18 Viral Diagnostic & Research Laboratories are functional upto 31st January, 2016, for carrying out viral diagnosis**

**Regional Level VRDLs**

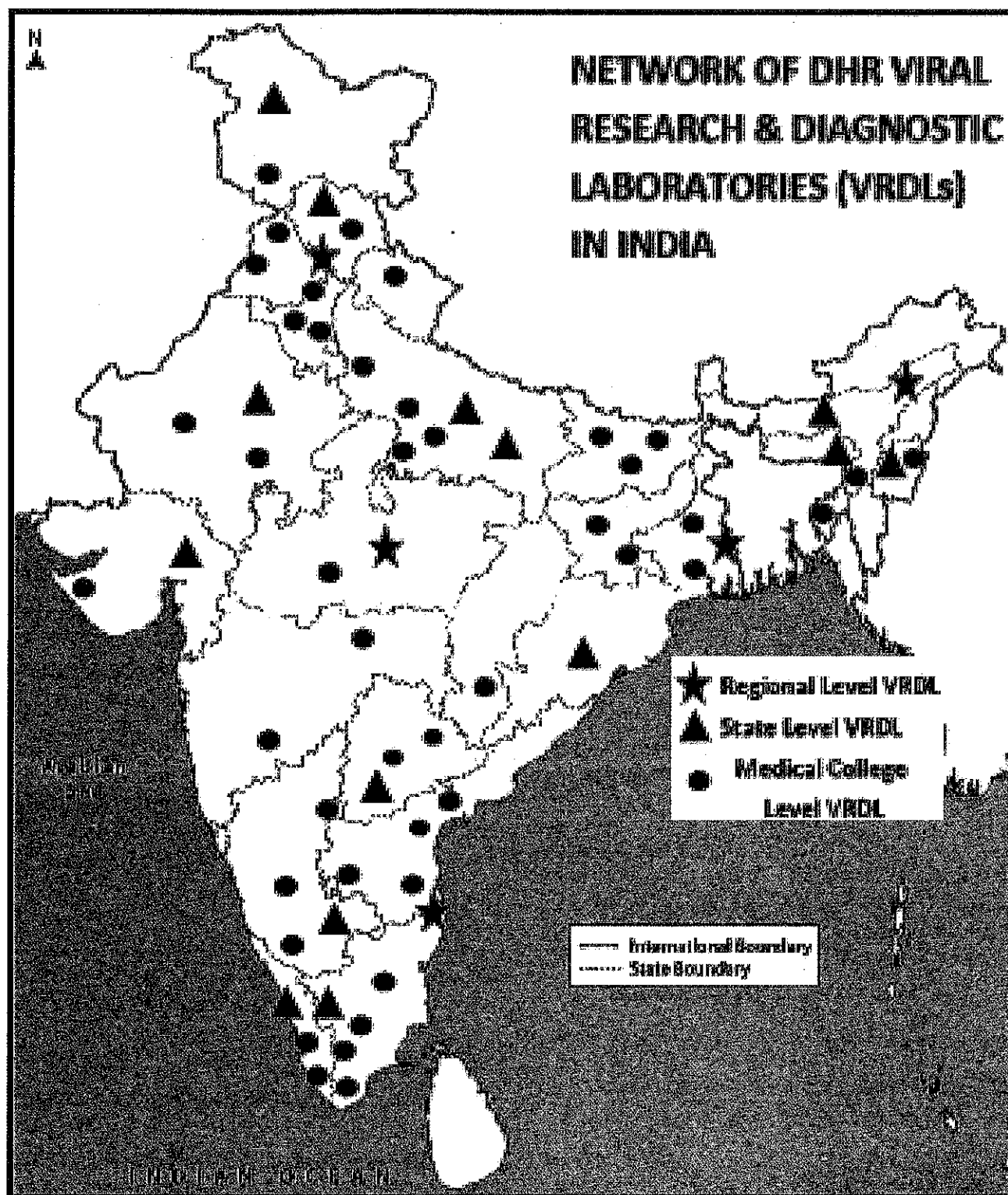
1. RMRC, Dibrugarh, Assam

**State Level VRDLs**

2. Gauhati Medical College, Gauwahati, Assam
3. IGM, Shimla, Himachal Pradesh
4. NEIGRIHMS, Shillong, Meghalaya
5. Sher-i-Kashmir Institute of Medical Sciences, Srinagar

**Medical College Level VRDLs**

6. Patna Medical College, Patna, Bihar
7. Madurai Medical College, Tamil Nadu
8. Government Medical College, Theni, Tamil Nadu
9. IGGMC, Nagpur, Maharashtra
10. Government Medical College, Agartala, Tripura
11. Osmania Medical College, Hyderabad, Telangana
12. Government Medical College, Jammu, J&K
13. Government Medical College, Amritsar, Punjab
14. Sri Venkateswara Institute of Medical Sciences, Tirupati, Andhra Pradesh
15. Late Sri Baliram Kashyap Memorial Medical College, Jagdalpur, Chhattisgarh
16. Pt. B.D Sharma PGIMS, Rohtak, Haryana
17. Government Siddharta Medical College, Vijaywada, Andhra Pradesh.
18. Government Medical College, Thiruvanthapuram



Click on the symbol (★, ▲, ●) to know the details of VRDLs

# ESTABLISHMENT OF MULTI-DISCIPLINARY RESEARCH UNITS (MRUs) IN STATE GOVERNMENT MEDICAL COLLEGES

## 4 CHAPTER

- 1.1 Health Research is predominantly carried out in the Medical Colleges/Institutions providing education in allied subjects. Medical Colleges are the back bone of both teaching and providing specialized services to patients in India. They are also expected to set the trends in the thinking process and innovations to improve the understanding of the diseases and their management. However, over the years it has been noticed that majority of medical colleges have confined themselves to routine patient care and teaching based on conventional methods. Presently, quality medical research is largely confined to a handful of institutions and medical colleges in the country that too in few States only. The standard of papers published/ research projects undertaken by the students of post-graduate courses/PhD in most of the Medical Colleges are not inspiring. The Department observed that it may be attributed both to the lack of appropriate facilities for conducting research and a lack of motivation and knowledge on the part of faculty and students in Medical Colleges for conducting research.
- 1.2 Due to lack of infrastructural facilities, the Medical Colleges have not been pursuing newer methods of investigation for understanding the pathological diagnosis, treatment and management practices. Even for State Governments, Health Research has not been perceived as a priority area. This has also affected the quality of clinical services being provided.
- 1.3 Therefore to promote and encourage quality medical research in the country and provide assistance to the Medical Colleges to set up appropriate research facilities, the Department of Health Research rolled out the MRU Scheme in the year 2013-14 for XIIth Plan and continued with its implementation during the year.
- 1.4 The target of the scheme, which has been approved and rolled out during the year 2013-14, aims to provide infrastructural support, in terms of civil works, equipment and recurring expenditure, to carryout research focused on non-communicable diseases, to various State Govt. Medical Colleges across the country.
- 1.5 The scheme entails setting up of 80 MRUs (45 in 2014-15) in the Government Medical Colleges/ Institutions during the 12th Plan period. The faculty of the Medical College will be encouraged to carry out research projects on national and regional priorities. Total estimated cost of the project is Rs.503.85 crores.

### FUNDING NORMS:

- 1.6 Rs.5.25 crore per MRU towards equipment & civil works. In addition, recurring expenditure of Rs.34.00 lakhs per annum towards staffing on contractual basis and consumables, etc.

### Action expected from the State Governments:

- o To provide requisite space (minimum 300 sq. mtr), free of cost, at the concerned Medical College.
- o Signing of MoA with the Department of Health Research for taking over the liability of running the centres after five years. This would be about Rs.34 lakhs per year per Medical College.

**1.7 Status of Implementation**

- i. Against the total target of covering 80 medical colleges, 70 MRUs have been approved. (36 in 2013-14 and 13 in 2014-15 and 21 in 2015-16).
- ii. Funds have been released to 52 MRUs (29 in 2013-14 and 13 in 2014-15 and 10 in 2015-16). Release of funds to another 5 Medical colleges approved in 2015-16 will be made on completion of requisite codal formalities.
- iii. Funds to 13 medical colleges could not be

released since UCs are pending in respect of other schemes of Ministry of Healthy & Family Welfare.

- iv. Against the BE provision of Rs. 45.50 crores and RE provision of Rs. 28.00 crores under Plan during 2015-16, expenditure upto January 2016 is Rs. 21.76 crores.

**1.8 List of medical colleges covered for establishment of MRUs during the year till date is given in table (6) below:**

**List of Government medical colleges/institutions approved for establishment of Multi-Disciplinary Research Units (MRUs) in the Government Medical Colleges/ Institutions (upto January 2016):**

**Table (6)**

S.No.	State	Name of the approved medical college
1	Andhra Pradesh (4)	Siddhartha Medical College, Vijaywada
		Rangaraya Medical College, Kakinda, Andhra Pradesh
		Andhra Medical College, Visakhapatnam Andhra Pradesh
		SV Medical College, Tirupati
2	Telangana (2)	Osmania Medical College, Hyderabad
		Gandhi Medical College, Secunderabad
3	Assam (2)	Silcher Medical College and Hospital, Silcher
		Fakhruddin Ali Ahmed Medical College, Barpeta, Assam
4	Chhattisgarh (1)	Pandit JNM Medical College, Raipur
5	Gujarat (2)	M.P.Shah Medical College, Jamnagar
		Surat Municipal Institute of Medical Education & Research (SMIMER), Surat
6	Haryana (1)	Pandit B.D. Sharma PGIMER, Rohtak
7	Himachal Pradesh (2)	Indira Gandhi Medical College, Shimla
		Dr. R.P. Govt. Medical College, Kangra at Tanda
8	Jammu & Kashmir Srinagar (3)	Govt. Medical College, Jammu
		Govt. Medical College, Srinagar
		Sher e Kashmir Institute of Medical Sciences, Srinagar
9	Jharkhand (1)	MGM Medical College, Jamshedpur
10	Karnataka (5)	Mysore Medical College and Research Institute, Mysore
		Shimoga Instt. Of Medical Sciences, Shimoga

S.No.	State	Name of the approved medical college
		Karnataka Institute of Medical Sciences, Hubli
		Dharwad Institute of Mental Health & Neuro Sciences, Dharwad
		Mandaya Institute of Medical Sciences
11	Kerala (2)	Medical College Thiruvananthapuram
		Calicut Medical College, Calicut, Kerala
12	Manipur (1)	Regional Institute of Medical Sciences, Imphal
13	Punjab (3)	Government Medical College, Amritsar
		Govt. Medical College, Patiala
		Guru Gobind Singh Medical College & Hospital, Faridkot
14	Chandigarh UT(1)	Government Medical College, Chandigarh
15	Rajasthan (6)	Dr. S.N. Medical College, Jodhpur
		Government Medical College, Kota
		Sardar Patel Medical College, Bikaner.
		J.L.N. Medical College & Associated Group of Hospitals, Ajmer
		SMS Medical College, Jaipur
		R.N.T Medical College, Udaipur
16	Tamil Nadu (9)	Madras Medical College, Chennai
		Tirunelveli Medical College, Tirunelveli
		Coimbatore Medical College, Coimbatore
		Dr.ALM Post Graduate Institute of Basic Medical Sciences, Taramani
		Medical College, Tanjavur, Tamil Nadu
		Govt. Mohan Kumarmangalam Medical College, Selam, Tamil Nadu
		Govt. Theni Medical College, Theni, Tamil Nadu
		Chengalpattu Medical College, Chengalpattu
		Madurai Medical College, Madurai
17	Tripura (1)	Agartala Govt. Medical College, Agartala
18	Uttarakhand (2)	Govt. Medical College, Haldwani (Nainital)
		Veer Chandra Singh Garhwali Govt Medical Science & Research Institute, Shrinagar
19	West Bengal(4)	R.G. Kar Medical College, Kolkata
		Medical College & Hospital, Kolkata
		Institute of Post Graduate Medical Education & Research, Kolkata
		Nil Ratan Sirkar Medical College, Kolkata
20	Delhi (NCT) (3)	University College of Medical Sciences, Delhi
		VallabhBhai Patel Chest Institute, Delhi
		Maulana Azad Medical College, Delhi

S.No.	State	Name of the approved medical college
21	Madhya Pradesh (4)	S.S. Medical College, Rewa
		Netaji Subhash Chandra Bose Medical College, Jabalpur
		M.G.M. Medical College, Indore
		GR Medical College, Gwalior
22.	Orissa (3)	S.C.B. Medical College, Cuttack
		VSS Medical College, Burla
		M.K.C.G. Medical College, Berhampur,
23	Goa (1)	Goa Medical College
24	Maharashtra (3)	Seth G.S Medical College & KEM Hospital Mumbai
		B.J. Medical College, Pune
		Dr. Vaishampayan Memorial Government Medical College, Sholapur
25	Uttar Pradesh (4)	G.S.V.M Medical College, Kanpur
		King George Medical University, Lucknow
		Institute of Medical Sciences, Banaras Hindu University, Banaras
		Rural Institute of Medical Sciences & Research, Safai, Etawah
<b>Total (25 States/UTs)</b>		<b>Total : 70 Medical Colleges</b>

**List of medical colleges approved for MRUs but funds could not be released due to non- completion of codal formalities, including settlement of pending UCs against other schemes of MoHFW, is given in Table (7) below:**

Table (7)

S.No.	State	Name of Medical College
1	Andhra Pradesh	Rangaraya Medical College, Kakinada
		Andhra Medical College, Visakhapatnam
2	Delhi(NCT)	Maulana Azad Medical College, Delhi
3	Jammu & Kashmir	Sher-e-Kashmir Medical College, Srinagar
4	Madhya Pradesh	GR Medical College, Gwalior
5	Maharashtra	B.J. Medical College, Maharashtra
		Dr. V.S Memorial Medical College, Solapur
6	Rajasthan	Government Medical College, Kota
		J.L.N Medical College & Associated Group of Hospitals, Ajmer
		RNT Medical College, Udaipur Rajasthan
7	Tamil Nadu	Govt. Mohan Kumaramangalam Medical College, Selam
8	Uttar Pradesh	Institute of Medical Sciences, Banaras Hindu University
		GSVM Medical College, Kanpur
	<b>Total</b>	<b>Total 13 Medical Colleges</b>

**Initiation of research activities by the MRUs:**

1.7 The concept research proposals, after approval from the respective Research Advisory Committee from the respective Medical Colleges, which were funded in September 2013, were invited for review.

A total of 162 concept research proposals on Non-communicable Diseases (NCDs) were screened in the Special Project Review Committee meeting on 13.11.2014. A total of 76 research proposals were shortlisted. The details are given in Table (8) as under:

**Table (8)**

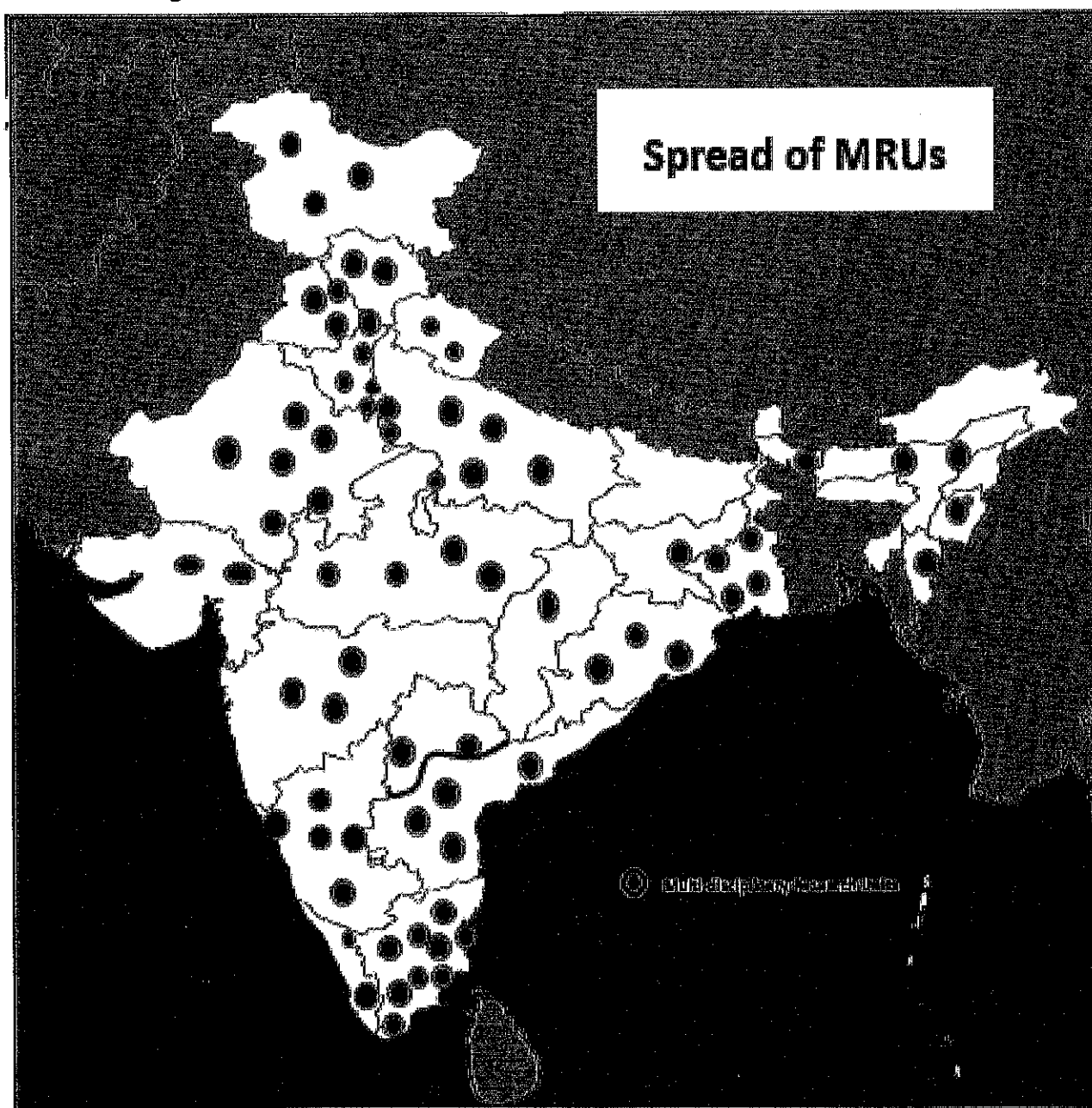
<b>S.No.</b>	<b>Name of Medical College</b>	<b>No. of Research Proposals shortlisted</b>
1	Osmania Medical College, Hyderabad, Andhra Pradesh.	2
2	Silcher Medical College and Hospital, Assam	3
3	Pandit B.D. Sharma PGIMER, Rohtak, Haryana	2
4	Indira Gandhi Medical College, Shimla, Himachal Pradesh	2
5	Govt. Medical College, Jammu, Jammu & Kashmir	3
6	Govt. Medical College, Srinagar, J & K	5
7	MGM Medical College, Jamshedpur, Jharkhand	4
8	Mysore Medical College and Research Institute, Mysore, Karnataka	4
9	Shimoga Instt. Of Medical Sciences, Shimoga, Karnataka	4
10	VSS Medical College, Burla, Orissa	3
11	Government Medical College, Amritsar, Punjab	3
12	Madras Medical College, Chennai, Tamil Nadu	3
13	Tirunelveli Medical College, Tirunelveli, TamilNadu	4
14	Coimbatore Medical College, Coimbatore, Tamil Nadu	2
15	Dr.ALM Post Graduate Institute of Basic Medical Sciences, Taramani, TamilNadu	6
16	Govt. Medical College, Haldwani (Nainital) Uttrakhand	2
17	VallabhBhai Patel Chest Institute, Delhi	3
18	Seth G S Medical College and KEM Hospital, Mumbai	1
19.	Chengalpattu Medical College, Chengalpattu	1
20.	SCB Medical College, Cuttack	1
21	Sree Avitom Thirumal Hospital for Women & Children, Medical College, Thiruvananthapuram, Kerala	1
22.	SS Medical College, Rewa	1
23.	Karnataka: Institute of Medical Sciences, Hubli	1
24.	Surat Municipal Institute of Medical Education & Research (SMIMER), Surat	2
25.	University College of Medical Sciences & GTB Hospital, Delhi	7
26.	Regional Institute of Medical Sciences, Imphal	4
27.	RG Kar Medical College, Kolkatta	2
	<b>Total no. of research proposals</b>	<b>76</b>



- 1.8 Since each medical college has constituted its own local Research Advisory Committee (RAC), it has been decided to give them freedom to undertake research under MRU as per the proposals recommended by the RAC, without seeking approval from DHR/ICMR. Role of DHR & ICMR should be limited to providing handholding to the medical colleges on designing research proposals and monitoring of progress of the research

activities and achievement of outcomes. For this purpose, a National Level Research Advisory Committee (NAC) consisting of three expert members would be constituted for making suggestions and providing guidance from time to time. A suggestive structure/composition of the Local RAC has also been conveyed to the medical colleges for effective & qualitative examination and approval of research proposals.

**Map showing country-wide establishment of Multi-Disciplinary Research Units in Govt. Medical Colleges**



# ESTABLISHMENT OF MODEL RURAL HEALTH RESEARCH UNITS (MRHRUs) IN THE STATES

## 5 CHAPTER

Public health system in India has a wide network of primary health centers at the periphery, plus referral, secondary and tertiary level hospitals at district, state and other levels. Over the last more than 60 years, preventive, diagnostic and therapeutic services have been provided through this network managed by States. It has been observed that a big gap exists between PHC/CHC and tertiary care hospitals with state-of-art-facilities created by centre and also by some of the state governments. The professionals and policy makers have a general view that modern methods of diagnosis and management cannot be practiced at peripheral level. There is a mental block among a large number of professionals and policy makers who think that modern methods of diagnosis and management cannot be practiced at rural settings.

2. Medical doctors working in the State public health system do not get opportunity for orientation on modern advances in a regular fashion in their settings and therefore, are unable to utilize advances in medical science in their work. Because of this, the transfer of technology to the end users becomes very difficult.
3. Further, wide variations exist in the pattern of diseases prevalent in different geographical areas, the local conditions which require development of state/area specific, disease specific strategy to provide better health care facilities ensuring that the modern technology is available to the general public. Transfer of research finding/technology at the rural level has been found to be major lacuna in the provision of quality medical services to rural population.
4. To bridge the gap, Department of Health

Research has rolled out a scheme for 'Establishment Model Rural Health Research Units (MRHRUs) in the States', under the initiative of infrastructure development for health research in the country. The scheme is based on the experience of establishing such a Unit at Ghatampur under National JALMA Institute for Leprosy and Other Mycobacterial Diseases (ICMR), Agra, where the methods of diagnosis and treatment as well as epidemiology are shown to be workable deep at the grass root rural settings. These Units have been envisaged to function as an interface between the developers of new technologies (Researchers in the medical/other institutions; State or Centre), Health Systems Operators (Centre/state health services) and the Beneficiaries (community).

5. The Model Rural Health Research Units being set up under the scheme would undertake the following functions:
  - i. Develop state/area specific models depending upon the disease profile, morbidity patterns and local conditions for transfer of the technology for providing better health care services to the rural masses.
  - ii. Training the health professionals of State health system for the use of modern field adaptable methods and the model developed.
  - iii. Undertake various research projects in close coordination with the State Government institutions and others that are relevant and beneficial to the rural population.

- iv. The Units will develop State specific models depending on the disease profile, topography and the local conditions as per the priorities & location identified by the State Govt. in close coordination with State Health Authorities.
6. The MRHRU will be an interface between patient, health providers and health researcher to provide latest / sophisticated technology for diagnosis and management of diseases in rural areas. The activity will be entirely supported by DHR for its sustenance. In total, 15 MRHRUs are to be established during the XII Plan period. Each MRHRU has to be linked to the nearest ICMR institute to mentor and guide the research activities of MRHRU relevant to local needs. The research activities carried out at each MRHRU are monitored/ guided by the Committee, consisting of eminent Scientists of National repute with representation from state govt. medical colleges, state health services and other concerned state health officials, constituted with the approval of Secretary, DHR. Total estimated cost of the project for entire XIIth Plan is Rs.67.66 crores.

**FUNDING NORMS:**

Rs.3.00 Crores per MRHRUs sanctioned for civil works/Equipment. Besides, recurring expenditure of Rs.50 lakhs towards staffing, consumables, etc.

**Action expected from the States:**

- Provide requisite land sufficient to construct covered space of about 620 sq. meters, in close proximity to the PHC/CHC, free of cost.
- Signing of MoA with the DHR for implementation of the programme.

**Status of Implementation**

- 12 MRHRUs already sanctioned and an amount of Rs.22.40 crores has been released during 2013-14 (Rs.12.40 crores) & 2014-15 (Rs.10.00 crores).
- Against the BE provision of Rs. 10.00 crores and RE provision of Rs. 6.50 crores under Plan during 2015-16, expenditure upto January, 2016 is Rs. 3.00 crores.
- List of 12 approved MRHRUs sanctioned till 31-12-2014 and 3 new MRHRUs to be sanctioned in 2015-16 in the various States is given in the table (9) below:

**Table (9)**

S. No.	State	Location of MRHRU	ICMR mentor Institute/Centre	Linked Medical College
1	Assam	PHC Chabua	RMRC, Dibrugarh	Assam Medical College & Hospital, Dibrugarh
2.	Himachal Pradesh	CHC, Haroli	NJIL&OMD, Agra	Dr RPG Medical college, Tanda
3.	Rajasthan	Bhanpur Kala, Government Health Clinic, Jaipur	DMRC, Jodhpur	SMS Medical College, Jaipur
4.	Tamil Nadu	State Rural Health Centre at Tirunelveli	NIE, Chennai	Tirunelveli Medical College
5.	Tripura	Kherengbar Hospital Khumulwung	RMRC, Dibrugarh	Agartala Government Medical College

S. No.	State	Location of MRHRU	ICMR mentor Institute/Centre	Linked Medical College
6.	Karnataka	PHC, Sirwar, Manvi Taluk, Raichur	RMRC, Belgaum	Raichur Institute of Medical Sciences, Raichur.
7.	Punjab	CHC Bhunga (Hoshiarpur)	NIOP, New Delhi	Govt. Medical College, Amritsar
8.	Maharashtra	Sub District hospital (SDH), Dahanu (Thane)	NIRRH, Mumbai	Grant's Medical College and JJ Group of Hospitals, Mumbai
9.	Andhra Pradesh	Old RHTC Premises, Chandragiri (Dist. Chittoor)	NIN Hyderabad	S.V. Medical College, Tirupati
10.	Odisha	Block, CHC, Tigiria	RMRC Bhubaneswar	S.C.B. Medical College, Cuttak
11.	Madhya Pradesh	Datia	RMRCT, Jabalpur	G.R. Medical College, Gwalior
12.	Chhattisgarh	PHC, Lakharam Block (Bilaspur)	RMRCT, Jabalpur	Chhattisgarh Institute of Medical Sciences, Bilaspur
13.*	Gujarat	Sachin Rural Health Training Center	National Institute of Occupational Health (NIOH), Ahmedabad	Govt. Medical College, Surat
14.*	West Bengal	Bandupur BPHC (BPHC equivalent to CHC)	National Institute of Cholera and Enteric Diseases (NICED), Kolkatta	College of Medicine and Sagore Datta Hospital, Kamarghati
15.*	Kerala	PHC Aryad	National Center for Disease informatics and Research, Bangalore	Govt. TD Medical College, Alappuzha

\* New MRHRUs likely to be sanctioned in 2015-16

#### Initiation of research activities by the MRHRUs:

7. ICMR being the implementing agency has also formulated the guidelines for composition of Research Advisory Committee (RAC), Terms of Reference and Procedure for Land Transfer by State to Department of Health Research. The MRHRUs of Himachal Pradesh, Rajasthan, Tamil Nadu, Assam and Tripura have constituted the RAC and have submitted the

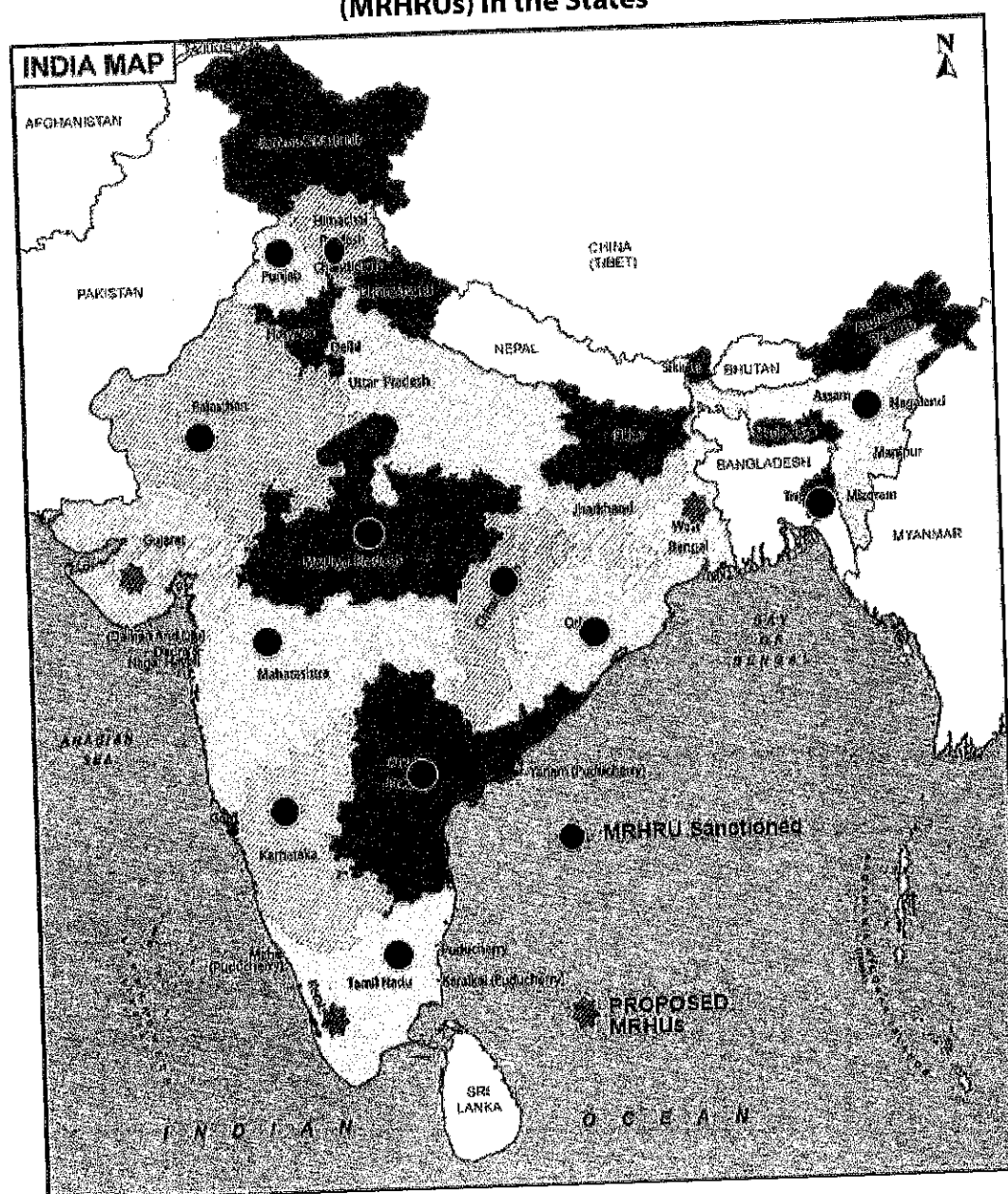
research proposals after approval through respective RAC. One multi-centric project on nutritional studies has been initiated at 8 MRHRUs.

8. All the research projects submitted by these MRHRUs have been reviewed by Special Project review Committee (SPRC) and the details are given in the Table (10) as below:

Table (10)

S.No.	Name of the MRHRU Project	No. of Research Proposals shortlisted
1.	MRHRU at CHC Haroli (Tanda) HP	6
2.	MRHRU at PHC, Chabua, Assam	3
3.	MRHRU at Kherengbar Hospital, Khumulwung, Tripura	3
4.	MRHRU at Kallur [Projects approved by Research Advisory Committee (RAC) under Chairmanship of Dr. Kolandaswamy]	5
5.	MRHRU at Bhanpur Kala, Govt. Health Clinic, Jaipur, Rajasthan	4
6.	Andhra Pradesh at Old RHTC Premises, Chandragiri (Dist. Chittoor)	3

Map showing country-wide establishment of Model Rural Health Research Units (MRHRUs) in the States



# GRANT-IN-AID SCHEME FOR INTER-SECTORAL CONVERGENCE & COORDINATION FOR PROMOTION AND GUIDANCE ON HEALTH RESEARCH

6

CHAPTER

The scheme launched during 2013-14 aims at providing support in the form of grant-in-aid for carrying out research studies to identify the existing knowledge gap and to translate the existing health leads into deliverable products. There will be special focus on encouraging innovation, their translation and implementation by collaboration and cooperation with other agencies by laying special stress on implementation research so that there is a better utilization of available knowledge. The Scheme has been approved by Cabinet Committee on Economic Affairs (CCEA) on 6th February, 2014 at a total estimated cost of Rs.1242 crores.

## 2. The Scheme has the following components for funding:

### (1) Research studies with emphasis on public health

The objective of this component is to support research studies on disease burden, risk factors, diagnosis & treatment, etc of major diseases. The studies will be limited to Non- communicable diseases. In this category a total number of 287 studies, with the maximum duration of 3 years and cost range between Rs.50 lakh - Rs.3 crores each, can be funded at a total estimated cost of Rs. 289.00 crores.

### (2) Translational Research Projects

The objective of this component is to translate the already identified leads into products and processes in the area of human healthcare, through coordination among the agencies involved in basic, clinical and operational research for use in the public health system. It is proposed to take up 75 leads already available with ICMR, 25 leads from Extramural projects funded by ICMR and 15 leads from other Science & Technology Departments/

Organisations. Total No. of 115 projects with a duration of 1-4 years and cost range of Rs.3-10 crores can be funded with a total estimated cost of Rs. 510 crores during the 12th Plan period.

### (3) Inter-sectoral Co-ordination Including Funding of Joint Projects

The Objective of this component is to promote joint/collaborative research projects with other agencies involved in bio-medical/health research in the country for optimum use of resources and transfer of knowledge. Total number of 181 projects with a cost range of Rs. 50 lakh-10 crore and duration of 2-3 years per project can be funded under this component, at a total estimated cost of Rs.298 crores

### (4) Cost effectiveness analysis of health technologies through a health technology assessment system

The aim of the studies would be to come up with appropriate recommendations and guidelines on cost effective but viable technology/process/diagnostics for managing various diseases, to facilitate public choice and controlling health care costs, while maximizing health outcomes. 171 projects with a cost range of Rs.50 lakh to Rs.2 crores and duration of 1-3 years can be funded under this component at a total estimated cost of Rs.136 crores.

### (5) Support to ICMR and non-ICMR scientists for participation in conferences abroad in identified priority areas of the Department and conduct of national & international seminars & conferences.

The component is intended to provide financial support for taking part in international conferences/



seminars/symposia etc. The activity of organizing international conferences/ seminars/symposia to share experiences on health research issues is also proposed under this component. Non-ICMR

scientists would mainly cover the faculty and students of the medical colleges. Total estimated cost of this component is Rs.6.00 crores.

### STATUS OF IMPLEMENTATION:

#### Year-2013-14:

Component of the Scheme	No. of Projects Sanctioned	Funds released (Rs. in Crore)
Research Studies with emphasis on Public Health	40	4.95

#### Year 2014-15:

Component of the Scheme	No. of Projects Sanctioned	Funds released (Rs. in Crore)
Research Studies with emphasis on Public Health	74	15.83
Translation Research	12	1.11
Intersectoral Co-ordination	5	0.71
Cost effectiveness analysis of health technologies through a health technology assessment system	9	5.29
Other Exp.		0.32
<b>Total</b>	<b>100</b>	<b>23.26</b>

#### Year 2015-16:

Component of the Scheme	No. of Projects Sanctioned	Funds released (Rs. in Crore)
Research Studies with emphasis on Public Health	22	7.15
Translation Research	1	0.58
Intersectoral Co-ordination	5	0.78
Cost effectiveness analysis of health technologies through a health technology assessment system	13	1.75
Others	-	0.12
<b>Total</b>	<b>41</b>	<b>10.38</b>



# SCHEME FOR HUMAN RESOURCES DEVELOPMENT FOR HEALTH RESEARCH

The scheme for Human Resource Development for Health Research (HRD) is intended to create a pool of talented health research personnel in the country by upgrading skills of faculty of medical colleges, mid-career scientists, medical students etc by specialized training in priority areas of health research in leading national and international institutions. Financial assistance to institutions for up-gradation of infrastructure to enable such institutions to provide training with state of the art technologies and development and implementation of online web based courses on health research is also an important component of the scheme. The scheme also has a separate component specifically for training of women scientists who have had a break in their career and for encouragement of Non-resident Indians (NRIs), Persons of Indian Origin (PIO) and Overseas Citizen of India (OCI) serving abroad in health research activities, to come back to India for undertaking research in identified areas.

2. Total approved cost of the scheme is Rs 597 crores for the 12th Plan period, involving award of 2585 fellowships and development of 1694 research projects by the trainees.

## PRIORITY AREAS OF RESEARCH

Toxicology	Quality Control (QC) and Quality Assurance (QA)
Genomics	Modern Biology
Proteomics	Biotechnology
Geriatrics	Genetics
Stem Cell Research	Drugs Chemistry
Clinical Trials	Operational Research
Good Clinical Practices (GCP)	Health Informatics

Good Laboratory Practices (GLP)	Medical Ethics
Disease Modeling	Health Economics
Environmental Health	Mental Health/Clinical Psychology
Any other area recommended by the committee as per National Health Policy/ National Health Goals	

## BENEFICIARIES:

- Regular employees of Govt. Medical colleges/ Institutions
- Private Institution/ NGOs (Registered with the DSIR, Govt. of India) as research institutions.
- Individual scientists in regular employment in the Universities, medical colleges, postgraduate institutions, recognized research and development laboratories and NGOs.
- Scientific/Professional Bodies & Associations.

## COMPONENTS OF THE SCHEME:

### (1) Support to Institutions for imparting training of the Fellows:

Support to 50 selected domestic institutions for providing training to candidates selected by the Department under this scheme in specially designed programmes/ identified priority areas. Such identified institutes will be given one time grant upto Rs. 50 lakh for gap filling/up gradation of facilities and up to Rs. 10 lakh per year for five years to meet the expenses on equipments, consumables, etc.

### (2) Short Term Fellowships

- i. Short term training (1-3 months) in Indian

institutions to the researchers employed as regular faculty (not above the age of 55 years)

- ii. Short term fellowships for training abroad in identified areas (1-3 months) to persons employed as regular faculty (not above the age of 55 years).
- iii. Short term specialized training (1-3 months) to mid-career or senior level faculty of medical colleges working/involved with three other approved schemes of DHR.

### (3) Long Term Fellowships

- i. Long term training fellowships (6 to 12 months) at Indian Institutions to persons employed as regular faculty, not above the age of 45 years.
- ii. Long term fellowships for training abroad in identified priority areas (6 to 12 months) to persons employed as regular faculty, not above the age of 45 years.
- iii. Long term training (6-12 months) to the faculties of medical colleges in Indian institutes (at least 2 persons per medical college per year) working/involved with three other approved schemes of DHR.

### (4) Fellowship programme specifically for women

This fellowship is for women candidates who have had a break in their career to bring them into the mainstream of health research.

### (5) Fellowship programme for young scientists in newer areas

This programme aims to fulfill the objective of creation of inclination / attitude of research among young bright students from the medical colleges / universities.

### (6) Start-up Grant for projects

Start-up grants, with an average cost of Rs. 30 lakh per research project, for three years, will be considered for each fellow /trainee, who has developed a research project.

### (7) Strengthening of research through the establishment of online courses and web portal on health research for students, faculty and other researchers

This programme will help prospective institutions and individuals to access resources- both financial and technical on research and promote research across the country. This facility will include the following components:

- Online courses along with contact programmes in relevant institutions
- Online resource material for researchers
- Online mentoring for researchers
- Interactive forums and e groups for researchers

### (8) Support to Scientific/Professionals/ Association/Bodies

Support will be provided to Scientific/Professionals/ Associations/Bodies engaged in the fields of medicine, surgery, microbiology, pathology etc. for undertaking various activities/ events with a view to promote higher standards in medical/ health research and for devising guidelines for policy making and prevention and management of different diseases.

### (9) Programme to encourage health research personnel [Non-resident Indians (NRIs), Persons of Indian Origin (PIOs), Overseas Citizens of India (OCI)] serving abroad to come back to India for undertaking research in identified areas

This initiative aims to bring back and attract Indian scientists working abroad to pursue medical/health research in India. There is provision to support brilliant medical doctors/scientists of Indian origin from all over the world who wish to return to India to take up research positions in the ICMR or other medical college/institute of their choice to pursue their research objective.

**STATUS OF IMPLEMENTATION:****Year -2013-14:***(i) Fellowships:*

S.No.	Types of Fellowships	No. of fellows	Sanctioned Amount (Rs. in lakhs)
1.	Long Term in Foreign Institutes	4	69.5
2.	Long Term in Indian Institutions	3	16.5
3.	Short Term in Indian Institutions	3	4.6
<b>Total</b>		<b>10</b>	<b>90.60</b>

*(ii) Support to Institutes:*

S. No.	Name of the Institute	Area	Non-recurring (equipment etc (Rs.in lakhs)	Recurring @ Rs.10.00 lakhs per year	Total first year Sanctioned Amount (Rs.in lakhs)
1.	J. N. Medical College, Belgaum	GLP	Nil	10.00	10.00
2.	JSS College of Pharmacy, Mysore	Drug Chemistry	19.0	10.00	29.00
3.	Manipal College of Nursing, Manipal	Geriatrics	8.10	10.00	18.10
<b>Total:</b>					<b>57.10</b>

**Year : 2014-15***(ii) Fellowships*

Type of Fellowships	No. of fellows	Sanctioned Amount (Rs in lakhs)
Short Term Fellowships in Foreign Institutes	17	126
Long Term Fellowships in Foreign Institutes	8	155
Long Term Fellowships in Indian Institutes	1	1.90
Short Term Fellowships in Indian Institutes	4	6.2
Support to scientific/professional association/bodies	1	1.00
Start-up grants	6	67.5
<b>Total amount sanctioned</b>	<b>37</b>	<b>357.60</b>

## (i) Support to Institutes

	Name of the Institute	Area	Sanctioned Amount (Rs in lakhs)
1.	National Institute of Virology, Pune	Modern Biology	10.0
2.	National Institute for Research In Reproductive Health, Mumbai	Genetics	10.0
3.	All India Institute of Medical Sciences, New Delhi	Operational Research	16.0
4.	Post Graduate Institute of Medical Education and Research, Chandigarh	Environmental health	57.10
5.	Nootan Pharmacy College, Visnagar, Gujarat	Quality Control & Quality Assurance	27.75
	<b>Total amount sanctioned</b>		<b>120.85</b>

Year : 2015-16

## (ii) Fellowships

Type of Fellowships	No. of fellows	Sanctioned Amount (Rs in lakhs)
Long Term Fellowships in Foreign Institutes	6	115
Long Term Fellowships in Indian Institutes	2	8.6
Short Term Fellowships in Foreign Institutes	9	53.60
Short Term Fellowships in Indian Institutes	1	1.40
Women with Break in Career	13	162.60
Young Scientist	6	80.48
NRIs/PIOs/OCI	2	81.14
Support to Conference	6	9.50
<b>Total amount sanctioned</b>	<b>45</b>	<b>512.32</b>

## (ii) Support to Institutes

	Name of the Institute	Area	Sanctioned Amount (Rs in lakhs)
1.	National Institute of Virology	Epidemiology and investigations of outbreak and emerging infections	51.30
2.	Indian Institute of Public Health, Bhubaneswar	Clinical and public health ethics	16.92
3.	National Institute for Research in Tuberculosis	Operational and implementation training programme	10.00
4.	All India of Medical Science	Neurosurgery simulations	59.79
5.	National Institute for Research in Reproductive Health, ICMR	Genomics and Proteomics	60.00
6	Sri Devraj Urs Academy of Higher Education & Research	Cytogenetics and Molecular Genetics	8.6
	<b>Total amount sanctioned</b>		<b>206.61</b>

- The advertisement was called for in the month of August 2015 and has been kept open throughout the year.
- The proposals have been evaluated on the 19<sup>th</sup> of October 2015 and 9<sup>th</sup> February 2016.
- The total grant allocated for the year 2015-16 was BE Rs.8 crores and RE has been increased to 10.00 Crores. The grant utilized till the 31<sup>st</sup>

of January 2016 is about Rs.7.19 Crores which includes 45 fellowships and 6 Support to Institutes.

- 15 proposals already approved by the Approval Committee amounting to about Rs.1.81 crores are likely to be funded by 31<sup>st</sup> March, 2016.

## IMPLEMENTATION OF THE SCHEMES IN THE NORTH EASTERN REGION

1.1 Department is taking due care and also taking pro-active steps to ensure sanctioning of proposals in the North Eastern Region under the following five schemes rolled out for implementation since 2013-14:

- 1) Establishment of Network of Research Laboratories for Managing Epidemics and Natural Calamities.
- 2) Establishment of Multi-disciplinary Research Units (MRUs) in Govt. Medical Colleges
- 3) Establishment of Model Rural Health Research Units (MRHRUs) in the States.
- 4) Scheme for Human Resources

Development for Health Research

- 5) Grant-in-Aid Scheme for Inter -Sectoral Convergence & Coordination for Promotion and Guidance on Health Research

1.2 Scheme-wise position of implementation of the above schemes in NE states is as follows:

- (1) Establishment of Network of Research Laboratories for Managing Epidemics and Natural Calamities.

1.3 The Virology Research & Diagnostic Labs (VRDLs) have been approved in the following institutions under the scheme:

S. No.	Name of the State	Name of the medical college sanctioned the VRDL	Funds released (Rs. in lakhs)		
			2013-14	2014-15	2015-16 (Upto January, 2016)
1	Assam	Regional Medical Research Centre (RMRC), ICMR, Dibrugarh( <b>Regional Lab</b> )	631.00	-	-
		Guwahati Medical College, Guwahati ( <b>State level lab</b> )	-	297.00	-
		Silchar Medical College, Silchar ( <b>Medical College level lab</b> )	Funds will be released after completion of certain codal formalities.		
2.	Manipur	Regional Institute of Medical Sciences, Imphal( <b>State level lab</b> )	Funds will be released after completion of certain codal formalities.		
		JawaharLal Nehru Institute of Medical Sciences, Imphal ( <b>Medical College level lab</b> )	-	157.00	-
3.	Meghalaya	1. North Eastern Indira Gandhi Regional Institute of Health & Medical Sciences (NEIGRIHMS) Shillong, ( <b>State level Lab</b> )	297.00	-	-
4.	Tripura	Government Medical College, Agartala ( <b>Medical College level lab</b> )	-	46.00	84.00

(2) Multidisciplinary Research Units (MRUs) in Govt. Medical Colleges:

S. No.	Name of the State	Name of the medical college sanctioned the MRU	Funds released (Rs. in lakhs)		
			2013-14	2014-15	2015-16 (January, 2016)
1	Assam	Silcher Medical College and Hospital, Silcher	125.00	-	-
		Fakhruddin Ali Ahmed Medical College, Barpeta	-	125.00	-
2.	Manipur	Regional Institute of Medical Sciences, Imphal	125.00	125.00	-
3.	Tripura	Agartala Govt. Medical College, Agartala	125.00	-	-



- 1.4 There are 10 medical colleges in the NE States. Efforts will be made to cover few more medical colleges under the scheme during the 12<sup>th</sup> Plan period.

**(3) Model Rural Health Research Units (MRHRU):**

- 1.5 MRHRUs have been sanctioned in the following NE States:

S. No.	State	Location of MRHRU	ICMR mentor Institute/ Centre	Linked Medical College	Funds released (Rs. in lakhs)		
					2013-14	2014-15	2015-16 (upto January, 2016)
1	Assam	PHC Chabua	RMRC, Dibrugarh	Assam Medical College & Hospital, Dibrugarh	150.00	100.00	-
5.	Tripura	Kherengbar Hospital Khumulwung	RMRC, Dibrugarh	Agartala Government Medical College	150.00	100.00	-

**(4) SCHEME FOR HUMAN RESOURCES DEVELOPMENT FOR HEALTH RESEARCH:**

*Rs.in lakhs*

Name of the State	2013-14	2014-15	2015-16 (upto January, 2016)
	-	8.00	9 proposals approved at an estimated cost of Rs. 66.00 lakhs and release in the pipeline

**(5) GRANT-IN-AID SCHEME FOR INTER -SECTORAL CONVERGENCE & COORDINATION FOR PROMOTION AND GUIDANCE ON HEALTH RESEARCH:**

**Implementation of the scheme in NE States:**

*Rs.in lakhs*

Name of the State	2013-14	2014-15	2015-16 (upto January, 2016)
	-	26.86	-

# INDIAN COUNCIL OF MEDICAL RESEARCH (ICMR)

9  
CHAPTER

The Indian Council of Medical Research (ICMR), New Delhi, is the apex body in India for the formulation, coordination and promotion of biomedical research and is one of the oldest medical research bodies in the world.

The ICMR is funded by the Government of India through the Department of Health Research, Ministry of Health & Family Welfare.

The Governing Council of the ICMR is presided over by the Union Health Minister. It is assisted in scientific and technical matters by a Scientific Advisory Board comprising eminent experts in different biomedical disciplines. The Board, in its turn, is assisted by a series of Scientific Advisory Groups, Scientific Advisory Committees, Expert Groups, Task Forces, Steering Committees etc. which evaluate and monitor different research activities of the Council.

The Council's research priorities coincide with the National health priorities such as control and management of communicable diseases, fertility control, maternal and child health, control of nutritional disorders, developing alternative strategies for health care delivery, containment within safety limits of environmental and occupational health problems; research on major non-communicable diseases like cancer, cardiovascular diseases, blindness, diabetes and other metabolic and haematological disorders; mental health and drug research (including traditional remedies). All these efforts are undertaken with a view to reduce the total burden of disease and to promote health and well-being of the population.

## Intramural Research

ICMR carries out intramural research through its

institutes/centres. Of 32 institutes/centres, 17 deal with communicable diseases and coordinated by Division of Epidemiology and Communicable Diseases; 7 with Non-Communicable Diseases (NCDs) and coordinated by the Division of NCD; 2 deal with diseases related to Reproductive and Child Health (RCH) and are coordinated by Division of RCH; 3 deal with diseases related to nutrition and are coordinated by Division of Nutrition and 3 deal with disease related to Basic Medical Sciences (BMS) and are coordinated by Division of BMS.

## Extramural Research

Extramural research is promoted by ICMR through-

Setting up Centres for Advanced Research in different research areas around existing expertise and infrastructure in selected departments of Medical Colleges, Universities and other non-ICMR Research Institutes.

Task force studies which emphasize a time-bound, goal-oriented approach with clearly defined targets, specific time frames, standardized and uniform methodologies, and often a multi-centric structure.

Open-ended research on the basis of applications for grants-in-aid received from scientists in non-ICMR Research Institutes, Medical colleges, Universities etc. located in different parts of the country.

## Achievements during the year:

In recent years, ICMR has progressively intensified research on emerging health problems such as Cardiovascular diseases, Metabolic disorders (including diabetes mellitus), Mental Health problems, Neurological disorders, Blindness, Liver diseases, Hearing impairment, Cancer, Drug

Abuse, Accidents, Disabilities etc. Research on Traditional Medicine/Herbal Remedies was revived with a disease-oriented approach. Attempts have been made to strengthen and streamline Medical Informatics and Communication to meet the growing demands and needs of the biomedical community.

### Major achievements of ICMR during 2015-16 are:

#### Infrastructure Development

- Establishment of National Animal Resource Facility for Biomedical Research, Hyderabad: The Institution will be the first of its kind for quality laboratory animals for basic and applied biomedical research in the Country. The Cabinet has approved the proposal.
- Satellite Centre of NIIH at Chandrapur Maharashtra has started working on screening and management of sickle cell diseases.
- ICMR Field Unit at Keylong in Lahaul & Spiti areas of Himachal Pradesh.
- Samrat Ashok Tropical Disease Research Centre at RMRI, Patna with a 200 bedded hospital for research on tropical diseases is ready.

#### Flagship Programmes

- **Tribal Health Research Forum:** A Network of 16 ICMR Institutes. Research programme on hypertension, nutrition and TB started with a goal of improving health of tribal and other marginalized communities.
- **Vector Borne Diseases Science Forum:** Multi-centric programmes on malaria, filariasis, JE/AES initiated. Ambitious public-private partnership for malaria elimination to be initiated. New triple drug therapy project with NVBDCP to support filariasis elimination. Indigenous production of Insecticide impregnated papers for insecticide resistance

developed by VCRC, Puducherry.

- Assisted Reproductive Technologies (Regulation) Bill: (to regulate medical, social, ethical and legal aspects of surrogacy.

#### Technologies Ready for Launch

- Diagnostic kit for lung fluke disease (paragonimiasis)
- Kits for leptospirosis – prevalent in Karnataka, Gujarat, Tamil Nadu and several other states.
- Kit for diagnosis of chlamydial infection prevalent in women.
- Kits for hormone assays: for various sex hormones useful for reproductive health problems
- Cooling jacket for persons exposed to hot atmosphere

#### Technology development and transfer/outbreak preparedness

- Three ELISA kits to detect CCHF IgM, CCHF IgG and KFD IgG were developed and standardized.
- Hepatitis E diagnostic ELISA technology will be transferred to industry.
- A Memorandum of understanding with HLL for transfer of Japanese encephalitis strain for vaccine production was signed.
- Technology for concentration & testing of water-borne viruses in drinking water was developed. Provisional patent filed (Application No. 160/MUM/2015).
- Being apex laboratory, NIV Pune provide Ebola diagnostic services to the country during the Ebola threat.
- Preparedness of ICMR to handle Zika virus outbreak: NIV, Pune has capacity to test the samples received during the acute phase

the disease by RT-PCR. A training of DHR/ICMR VRDLs and concerned ICMR Institutes for Zika virus testing is shortly being organized. ICMR also issued an alert to several paediatricians as well as the Viral Research & Diagnostic Laboratories to refer suspected samples for Zika testing at NIV, Pune.

### Other Research Activities

- National Anti Microbial Resistance Surveillance Network (AMRSN) continued to enable compilation of National Data of AMR at different levels of Health Care.
- **National Hospital Based Rotavirus Surveillance Network:** The study is being carried out at 4 Major referral labs, 7 ICMR's Regional labs and 23 hospital sites to see the trend in burden of rotavirus diarrhoea as well as impact of Rotavirus vaccine under Universal Immunization Program (UIP).
- A Research cum Intervention project on AES/ JE is being continued
- ICMR-INDIAB, an epidemiological study on diabetes was completed in 5 states.
- Management of Acute Coronary Event Registries: Structured data capture of acute coronary syndromes is the first step in improvement of quality of treatment. The feasibility study was undertaken under in 13 public and private hospitals across India and recruited 1515 confirmed ACS patients  $\geq 18$  years.
- A Centre for Advanced Research for Innovations in Mental Health and

Neurosciences: Manpower Development and Translational Research at NIMHANS, Bangalore has been initiated.

- A stroke registry was set up in rural and urban population of Bangalore and Ludhiana.
- DHR/ICMR guidelines for diagnosis and treatment of rickettsial infections in the country.
- TF study launched towards establishment of National Institute of Zoonosis at Nagpur.

### International Cooperation in Health Research

- Ongoing partnerships in Health Research (under 8 MOUs) with various international organizations/agencies during last one year.
- Total 11 exchange visits of Scientists were arranged for various international collaborative programmes/projects.
- 8 MOU were signed with various International agencies for collaborative research.
- International Research Co-operation – 102 projects approved by Health Ministry's Screening Committee (HMSC).
- Total 12 Junior Scientist and 6 Senior Scientists were selected for ICMR International Fellowship during 2015-16.

### Extramural Research

- ICMR funded a total of 1745 research projects including fellowships during the year, while 292 new research projects including fellowships were approved.

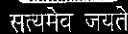
**Annexure****BE/RE 2015-16 and actual expenditure upto January, 2016 and BE 2016-17 under Plan & Non Plan**

(Rs. in crores)

S. No.	Scheme/ Programme	Budget Head	2015-16					2015-16			2016-17	
			PLAN			NON PLAN			PLAN	NON-PLAN		
			BE	RE	Actual expr upto 01/2016	BE	RE	Actual expr 01/2016				
1	2	3	4	5	6	7	8	9	10	11		
1	Secretariat-Social Services	Secretariat-Social Services	2.00	2.00	0.95	10.00	8.00	1.11	0.00	10.80		
2	Human Resource Development for Health Research	Advanced Training in research in medicine and health	7.20	9.00	7.19	-	-	-	11.75	-		
		International cooperation in medical and health research	1.00	0.80	-	-	-	-	1.00	-		
3	Grant-in-aid Scheme for inter-sectoral convergence & promotion and guidance on research governance issues	Inter-sectoral coordination in medical, biomedical and health research	28.30	14.00	7.30	-	-	-	12.75	-		
		Promotion & guidance on research governance issues.	2.00	0.10	-	-	-	-	0.00	-		

	Matters relating to scientific societies and associations, charitable and religious endowments in medicine and health research.	0.00	0.00	-	-	-	-	-	0.00	-
	Coordination with Governments/ organizations	0.00	0.00	-	-	-	-	-	0.00	-
4	Managing epidemics and national calamities	40.50	42.71	21.81	-	-	-	-	37.25	-
5	Development of infrastructure for promotion of health research	40.50	25.20	21.51	-	-	-	-	21.75	-
	Promotion, coordination and development of basic, applied and clinical research									
	Establishment of Model Rural Health Research Units.	9.00	6.00	3.00	-	-	-	-	5.50	-
6	Indian Council of Medical Research (ICMR)	511.35	501.03	491.35	295.00	337.00	295.00	295.00	545.00	284.00
7.	Bhopal Memorial Hospital & Research Centre, Bhopal								40.00	100.00
7	*Provisions for Projects/Schemes of North East areas.	71.32	66.76	31.99	-	-	-	-	75.00	-
	<b>Total</b>	<b>713.17</b>	<b>667.60</b>	<b>585.10</b>	<b>305.00</b>	<b>345.00</b>	<b>296.11</b>	<b>750.00</b>	<b>394.80</b>	





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