



REPORT NO.

144

PARLIAMENT OF INDIA
RAJYA SABHA

DEPARTMENT-RELATED PARLIAMENTARY STANDING
COMMITTEE ON HEALTH AND FAMILY WELFARE

ONE HUNDRED AND FORTY FOURTH REPORT

ON

DEMANDS FOR GRANTS 2023-24 (DEMAND NO. 47)
OF THE
DEPARTMENT OF HEALTH RESEARCH

(Ministry of Health and Family Welfare)

(Presented to the Rajya Sabha on 15th March, 2023)
(Laid on the Table of Lok Sabha on 20th March, 2023)



Rajya Sabha Secretariat, New Delhi
March, 2023/ Chaitra, 1945 (SAKA)

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सत्यमेव जयते

**Rajya Sabha Secretariat, New Delhi
March, 2023/ Chaitra, 1945 (SAKA)**

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COMPOSITION OF THE COMMITTEE

(2022-23)

1. Shri Bhubaneswar Kalita - Chairman

RAJYA SABHA

2. Dr. Anil Agrawal
3. Shri Sanjeev Arora
4. Dr. L. Hanumanthaiah
5. Shri Shambhu Sharan Patel
6. Shri Imran Pratapgarhi
7. Shri B. Parthasaradhi Reddy
8. Shri S. Selvaganabathy
9. Dr. Santanu Sen
10. Shri A. D. Singh

LOK SABHA

11. Shrimati Mangal Suresh Angadi
12. Ms. Bhavana Gawali (Patil)
13. Shri Maddila Gurumoorthy
14. Ms. Ramya Haridas
15. Shri K. Navas Kani
16. Dr. Amol Ramsing Kolhe
17. Shri C. Lalrosanga
18. Dr. Sanghmitra Maurya
19. Shri Arjunlal Meena
20. Shrimati Pratima Mondal
21. Dr. Pritam Gopinath Rao Munde
22. Dr. Lorho S. Pfoze
23. Adv. Adoor Prakash
24. Shri Haji Fazlur Rehman
25. Dr. Rajdeep Roy
26. Dr. DNV Senthilkumar S.
27. Dr. Jadon Chandra Sen
28. Shri Anurag Sharma
29. Dr. Mahesh Sharma
30. Dr. Sujay Radhakrishna Vikhepatil
31. Dr. Krishna Pal Singh Yadav

SECRETARIAT

- | | |
|---------------------------|-----------------------|
| 1. Shri S. Jason | Joint Secretary |
| 2. Shri Shashi Bhushan | Director |
| 3. Shri Bhupendra Bhaskar | Additional Director |
| 4. Shri Goutam Kumar | Deputy Secretary |
| 5. Shri Saurav Trivedi | Secretariat Assistant |

PREFACE

I, the Chairman of the Department-related Parliamentary Standing Committee on Health and Family Welfare, having been authorized by the Committee to present the Report on its behalf, hereby present this 144th Report of the Committee on the Demands for Grants for the year 2023-24 (Demand No. 47) of the Department of Health Research, Ministry of Health and Family Welfare.

2. The Department-related Parliamentary Standing Committees are entrusted with the constitutional role of ensuring accountability of executive to the Parliament. In this regard, Rule 270 (a) of Rules & Procedure and Conduct & Business in the Council of States (Rajya Sabha) empowered the Department-related Standing Committees to consider the Demands for Grants of the related Departments/Ministries with the objective of ensuring financial accountability of the executive and report thereon. In exercise of its constitutional mandate, the Department-related Parliamentary Standing Committee on Health & Family Welfare scrutinised the Demands for Grants for the year 2023-24 (Demand No. 47) of the Department of Health Research, Ministry of Health and Family Welfare. The Committee, in its meeting, held on 21st February, 2023 heard the Secretary, Department of Health Research and other Officers on Demands for Grants (2023-24) of the Department.

3. The Committee while making its observations/recommendations has mainly relied upon the following documents:—

- (i) Detailed Demands for Grants (2023-24) of the Department of Health Research;
- (ii) Annual Report of the Department for the year 2022-23;
- (iii) Detailed Explanatory Note on Demands for Grants (2023-24) of the Department of Health Research;
- (iv) Output-Outcome framework 2023-24 for scheme of the Department of Health Research;
- (v) Projection of outlays for the schemes to be undertaken by the Department during the Financial Year 2023-24;
- (vi) Written replies furnished by the Department to the Questionnaires sent to them by the Secretariat; and
- (vii) Presentation made by the Secretary (Health Research) and other concerned officers, etc.

4. The Committee, in its meeting held on 13th March, 2023, considered the draft report and adopted the same.

5. For facility of reference and convenience, observations and recommendations of the Committee have been printed in bold letters in the body of the Report.

NEW DELHI
13th March 2023
Chaitra, 1945 (Saka)

Bhubaneswar Kalita
Chairman,
Department-related Parliamentary Standing Committee on
Health and Family Welfare

ACRONYMS

AIIMS	All India Institute of Medical Sciences
BSL	Biological Safety Level
CHC	Community Health Center
CCHRC	Cachar Cancer Hospital and Research Centre
CSIR	Council of Scientific and Industrial Research
CSS	Centrally Sponsored Scheme
CT	Computed Tomography
CPWD	Central Public Works Department
DAE	Department of Atomic Energy
DBT	Department of Biotechnology
DHR	Department of Health Research
DRDO	Defence Research and Development Organisation
DST	Department of Science and Technology
DIAMOnDS	DHR-ICMR Advanced Molecular Oncology Diagnostic Services
EE	Emotional Exhaustion
FY	Financial Year
GDP	Gross Domestic Product
GIA	Grants in Aid Scheme
HCW	Healthcare Workers
HIV	Human Immunodeficiency Virus
HLRC	Health Laboratory & Research Centre
HTA	Health Technology Assessment
IPL	Indian Premier League
IPHL	Integrated Public Health Laboratories
ICMR	Indian Council of Medical Research
ICAR	Indian Council of Agricultural Research
JIPMER	Jawaharlal Institute of Postgraduate Medical Education & Research
MDR-TB	Multi-Drug Resistant Tuberculosis
MIP	Mycobacterium indicus pranii
MoU	Memorandum of Understanding
MRHRUs	Model Rural Health Research Units
MRUs	Multidisciplinary Research Units
NJILOMD	National JALMA Institute for Leprosy & Other Mycobacterial Diseases
NCDs	Non-Communicable Diseases
NCDC	National Control for Disease Control
NER	North Eastern Region
NHA	National Health Authority
NIH	National Institutes of Health
NIRT	National Institute for Research in Tuberculosis
NITM	National Institute of Traditional Medicine, Belagavi
NIV	National Institute of Virology, Pune
NMC	National Medical Commission
NRC	Nutritional Rehabilitation Centers
NSO	National Statistical Office
NTEP	National TB Elimination Programme

OOPE	Out-Of-Pocket Expenditure
PGIMER	Postgraduate Institute of Medical Education and Research
PHCs	Primary Health Centres
PM-POSHAN	Pradhan Mantri Poshan Shakti Nirman
PM-ABHIM	Prime Minister's Ayushman Bharat Health Infrastructure Mission
RE	Revised Estimate
RMRC	Regional Medical Research Centre
RMNCH	Reproductive, Maternal, Newborn, Child and Adolescent Health
RESEARCH	Regional Enabler for South East Asia Research Collaboration for Health
SDG	Sustainable Development Goals
SEARO	South East Asia Region
SOP	Standard Operating Procedure
STW	Standard Treatment Workflow
VRDL	Viral Research and Diagnostic Laboratories
UPSC	Union Public Service Commission
UP	Uttar Pradesh
WHO	World Health Organisation
XDR TB	Extensively drug-resistant TB

CHAPTER – I

INTRODUCTION

1.1 Health research conducted globally has led to significant discoveries, development of new therapies, and a noticeable improvement in health care and public health. The impact it has on human health and longevity results in increase in productivity of the people, thereby contributing to the national economy. Therefore, in today's world, significance of medical research cannot be ignored. The improvement in life expectancy of human race has been the consequence of decades of medical research.

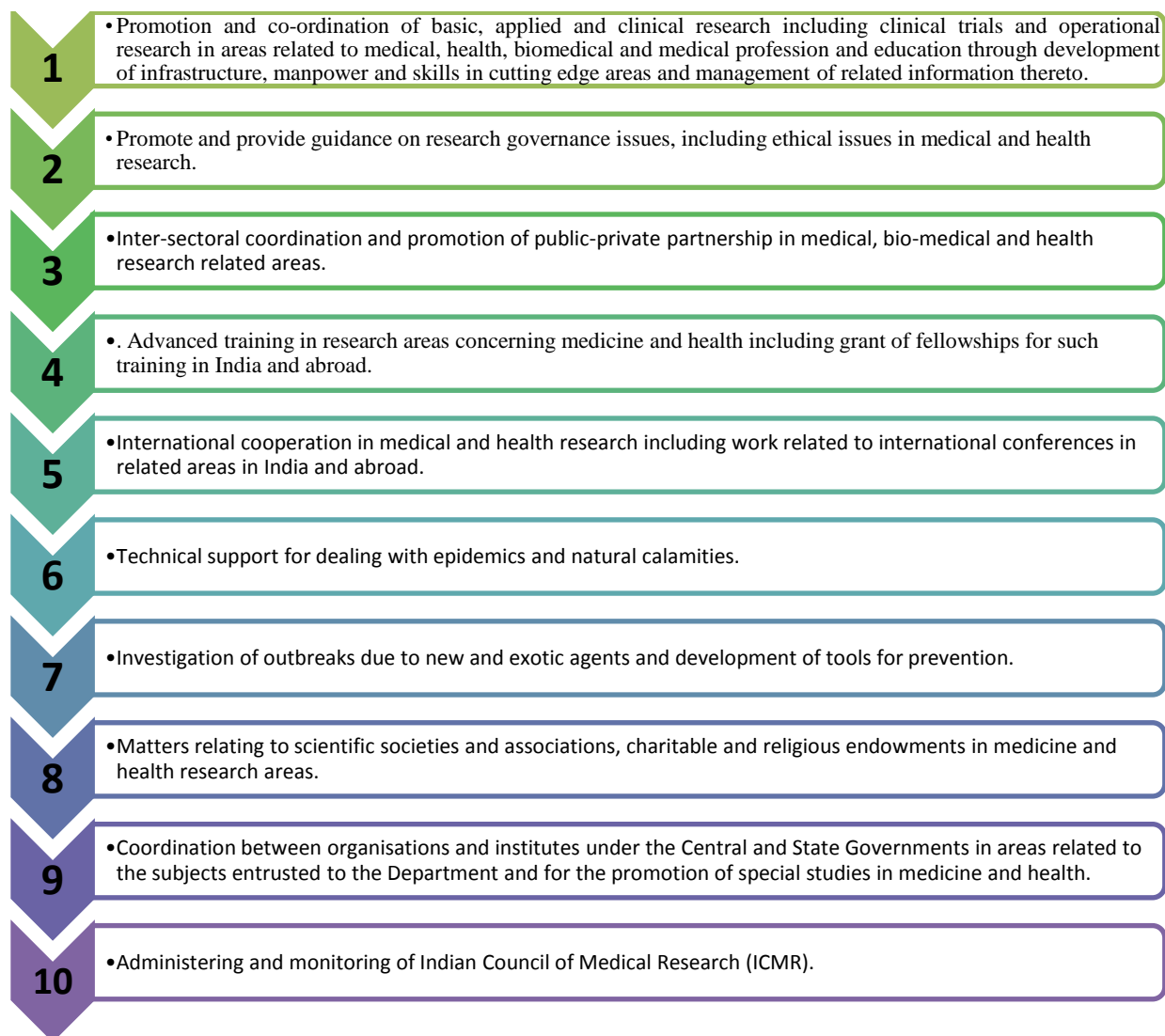
1.2 In India, public health institutions are major stakeholder in the field of health research. Majority of health research outcomes are realized and sustained from public funds from the Government of India. Department of Health Research (DHR), Indian Council of Medical Research (ICMR), Department of Biotechnology (DBT), Department of Science and Technology (DST), Council for Scientific and Industrial Research (CSIR), and Department of Atomic Energy (DAE) are some of the major government bodies engaged in bulk of the health research work done in India.

1.3 Although the financial support for health research in India is still below 1% of GDP and Union budgetary allocation for health research is even lower at 0.012% of GDP (GDP data as per NSO estimate 2022-23), however, the future of financial support for health research looks bright in India with more collaboration between public and private health institutions. A prime example of such collaboration is the development of the vaccine Covaxin which was developed jointly by ICMR- a premier public health research institution in India and Hyderabad based Bharat Biotech. Taking this public-private collaboration forward, the Finance Minister in the Budget 2023-24 speech announced that facilities in select ICMR labs will be made available for research by public and private medical college faculty and private sector Research & Development teams for encouraging collaborative research and innovation.

Department of Health Research:

1.4 Department of Health Research (DHR) is a prime public organisation working in the field of health research in India. 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 September 17th, 2007. The Department became functional with 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 and to translate such innovations into products and processes in synergy with concerned organisations and stakeholders and finally introduce these innovations into public health system.

Mandate of the DHR:



1.5 To execute its mandate, the Department of Health Research oversees and administers following schemes:-

- i. **Establishment of Network of Viral Research and Diagnostic Laboratories (VRDLs)** for Managing Epidemics and Natural Calamities and pandemics like Covid-19;
- ii. **Development of Multi-Disciplinary Research Units (MRUs)** in Government Medical Colleges Research Institutes to promote and encourage quality medical research in the country and provide assistance to medical colleges to set up appropriate research facilities;
- iii. **Establishment of Model Rural Health Research Units (MRHRUs)** in rural areas to bridge the gap that exists between Primary Health Centres and secondary & tertiary care hospitals;

- iv. **Human Resource Development for Health Research** to create a pool of talented health research personnel in the country by upgrading skills of faculty of Medical Colleges/ Institutes, mid-career Scientists, medical students, etc.
- v. **Grants in Aid Scheme (GIA)** for inter-sectoral convergence & Co-ordination for Promotion and Guidance on Health Research;
- vi. **Health Technology Assessment in India (HTAIIn)** to facilitate the process of transparent and evidence informed decision making in the field of health; and
- vii. **Development of Tools/ support** to prevent outbreak of epidemics.

Human Resource Management

1.6 Besides operating seven schemes to fulfill its mandate, the Department of Health Research is also administering Indian Council of Medical Research (ICMR), an autonomous organisation of the Department. Presently, the DHR has a total of 42 sanctioned posts in different grades. Besides the administrative posts, there are 2 posts each in the grade of Scientist C, D and E.

1.7 The Committee has been given to understand that the process of filling up of the vacant posts is under consideration in consultation with the concerned Departments/ Cadre Controlling Authorities. The posts of Scientist C, D and E were to be filled up by the Department on deputation including short-term contract (ISTC). Accordingly, the vacancies were advertised at All India level. However, the process of filling up of these posts became infructuous as none of the candidates was found eligible for the post of Scientist 'C'. The only candidate recommended by the UPSC for the post of Scientist D did not join. The only candidate found eligible for the post of Scientist 'E' did not appear for the personal interaction. Therefore, as per the advice of the UPSC, the process of filling up of these posts is being re-initiated.

1.8 The Committee is concerned to note that the posts of Scientist C, D and E in DHR are still vacant despite these posts being approved in 2017. The Committee, in its 132nd Report on Action Taken Note on 127th Report of Demand for Grants (DFG 2021-22) had recommended the Department to formulate a mechanism for completing the recruitment process within a definite time frame. The Committee believes that the task of filling up of these posts has become an insurmountable task for the Department that needs due attention and strategy for immediate resolution.

1.9 The Committee observes that despite various efforts of the Department to attract quality talent, unfortunately, the results have been paltry. Keeping in view the fact that scientific research is the gateway for assured growth and economic development of the nation, the Committee recommends that Government should further incentivise research in medical field. Some of the developed countries like China, Germany and US have done it with good results. In India, however, it is seen that there are limited ways of retaining quality talent and experience, particularly within government and public health

ecosystems. The Committee recommends that DHR must devise constructive ways to attract talent in the field of research. The work culture, systems of rewards and recognition should be such that the prospective and shortlisted candidates are attracted towards working in DHR/ ICMR. The Committee desires that it may be informed of the steps taken towards this direction along with the results it yielded.

Health Technology Assessment in India (HTAIn)

1.10 Under human resource capacity development, health technology assessment is a scheme to facilitate transparent and evidence informed decision making in the field of healthcare. The objective of the scheme is to analyse new innovations and health technologies in pharma and medical device industry. The findings from the assessment helps in decision making process which in turn leads to the judicious use of health budget and provide people with affordable healthcare services.

1.11 The Committee notes that HTA is an invaluable tool as health budget in India is still insufficient. HTA is a key tool as it takes into account multiple factors such as cost effectiveness, reliability of technology, pricing, budget allocations, pricing, etc. The Committee feels that development of an effective Health Technology Assessment system can significantly reduce out of pocket expenditure which is very high in India and which often results in many Indians falling below the poverty line. The Committee is of the firm opinion that if the system is developed in the Indian context, *i.e.*, considering the limitations of the Indian healthcare system, as well as the economical, cultural, ecological, ethical, and philosophical considerations relevant to Indian policymaking, these HTA systems can form the guidelines on decision-making on pricing, price cappings, reimbursement and also investments in the Indian healthcare system.

Preparation of Standard Treatment Workflows (STWs) for Diseases

1.12 ICMR has developed Standard Treatment Workflows (STWs) in collaboration with National Health Authority (NHA) and WHO, India. These STWs are standards treatment protocols and comprise of symptoms, signs, diagnostics, treatment etc for concerned diseases. So, far the ICMR has developed 122 STWs covering 23 conditions/ STWs.

1.13 The Committee acknowledges the Standard Treatment Workflows (STWs) developed by ICMR for various conditions affecting the Indian population. The Committee recommends the Department to spread awareness about the STWs amongst the medical professionals and also to put these STWs in implementation on a pilot basis and modify the STWs based on the feedback received.

CHAPTER- II

ANALYSIS OF BUDGETARY ALLOCATIONS

Projected Demands and Actual Allocation:

2.1 In the BE 2023-24, Department of Health Research (DHR) has been allocated Rs. 2980.00 crores as against the projected demand of Rs. 3080.00 crores. Details of the Projected Demand vs BE allocation for the past four financial years has been illustrated below:-

Table 1

(Rs. in crores)

Sl. No	Year	Projected Demand	BE allocation	RE allocation
1	2020-21	2812.72	2100.00	4062.30
2	2021-22	3312.33	2663.00	3080.00
3	2022-23	3467.65	3200.65	2775.00
4	2023-24	3080.00	2980.00	-

2.2 The Committee discerns that the projected demand of Rs. 3080.00 crores for the year 2023-24 is significantly less than the projected demand for last year i.e. Rs. 3467.65 crores. The Committee wishes to be apprised of the reasoning behind lower projection of demands compared to last year's projections, especially after considering the fact that with each passing year the responsibility and objectives of the Department are expanding and getting more comprehensive.

2.3 The Committee observes that the projected demand by the Department and the corresponding budgetary allocation to the Department in the last three financial years i.e. 2020-21, 2021-22 and 2022-23 has seen a consistent increase, however, financial year (FY) 2023-24 bucks this trend. In 2023-24, both projected demand and BE allocation has seen a decline in comparison to the FY 2022-23. The Committee notes that in 2023-24 numerous big-ticket projects like establishment of 4 National Institute of Virology, Centre for One Health, multiple BSL-III labs along with critical research projects to fight TB, communicable and non-communicable diseases would be undertaken by the Department. The Committee believes that the projected demand for the year 2023-24 is perhaps incommensurate with the Department's proposed projects. Therefore, the Committee feels that the budgetary allocation to the Department for the year 2023-24 is grossly insufficient and recommends that DHR/ICMR should revisit the allocation made and seek additional funds at the RE stage to achieve the set targets for the FY 2023-24.

2.4 The Committee was informed that the projected demand for each of the scheme has been allocated the desired funds with the exception of ICMR. As against a projected demand of Rs.2459.58 crores only an amount of Rs.2359.58 crores has been allocated for ICMR in the BE 2023-24.

2.5 The Committee notes with concern that all the schemes/ heads have been provided the desired budgetary allocation except ICMR. The ICMR has been allocated less funds to the tune of 100 crores. The Committee believes that ICMR is an apex body for medical and biomedical research in the country and thus, should be provided sufficient budget to meet its intended objectives and targets.

2.6 Responding to a query regarding the budgetary allocation to the Department of Health Research in comparison to the total health budget, the Department furnished the following data:-

Table 2

(Rs. In crores)

Year	BE Allocation	BE allocation as percentage of Total Health Budget
2021-22	2663.00	3.60 %
2022-23	3200.65	3.71 %
2023-24	2980.00	3.34 %

2.7 The Committee notes that the budgetary allocation for the year 2023-24 of the Department of Health Research is only 3.34% of the total health budget as against 3.71% in 2022-23. So, instead of an increase in share of allocation for health research this year the allocation has witnessed a decline. In 2022, the Committee had recommended that that budgetary allocation to health research should be 5% of the total health budget. The Committee notes that its earlier recommendation has not been taken in the cognizance and hence would like to reiterate that the budgetary allocation to the Department of Health Research should be increased to at least 5% of the total health budget as this would help create the necessary healthcare and research infrastructure to mitigate future health emergencies.

2.8 As per the information furnished by the DHR, the statement indicating allocation at BE stage during last three years and actual expenditure *w.r.t* percentage of GDP of India (last five years) is as follows:-

Table 3

(Rs. in crores)

Year	BE Allocation	BE allocation as percentage of Total Health Budget	Actual Expenditure	Actual health research expenditure as percentage of GDP	Health research expenditure as percentage of GDP for US, UK and China
2021-22	2663.00	3.60 %	2690.60	0.02 %	As per the World Bank data, current health expenditure 2017 (from internet) health research expenditure in US and UK as a percentage of GDP is 0.65 % and 0.44 % respectively.
2022-23	3200.65	3.71 %	2332.62 (upto 31.01.2023)	0.02 %	
2023-24	2980.00	3.34 %	-	0.02 %	

2.9 The Committee notes that the actual health research expenditure as percentage of GDP has been constant at 0.02 since 2021-22. Over the years there has been a consistent demand for increase in the public expenditure on health research and with COVID-19 pandemic highlighting the importance of funding research in health, the Committee notes that health research expenditure as percentage of GDP is still very less. Given the population size of the country and its recent sour experiences particularly during second wave of pandemic COVID-19, the Committee feels that there is serious need to substantially increase the Government expenditure on health research infrastructure as public health resources, necessary to respond to outbreaks like COVID-19 are still weak in India. This would require huge investment for development of clinical research infrastructure, up gradation of testing and diagnostic facilities, human resource and capacity development and other support services, hence the capital expenditure component desperately requires this transformational push, otherwise continuing with the usual budget allocation-expenditure pattern would result in just maintaining the existing system, and not reforming and making it ready to tackle the future health emergencies. Therefore, the Committee recommends that the health research expenditure should gradually be increased to 0.1% of the GDP till FY 2025-26.

Budget Utilisation Trends:

2.10 As per the data furnished by the Department, the trend of utilisation of the Budget allocation to the Department of Health Research (DHR) in the last three years is as under:-

Table 4

(Rs. in crores)

YEAR	BE	RE	AE	Shortfall in expenditure (RE-AE)
2019-20	1900.00	1950.00	1860.98	89.02
2020-21	2100.00	4062.30	3124.59	937.71
2021-22	2663.00	3080.00	2690.00	389.40
2022-23	3200.65	2775.00	2346.44	428.56 (upto 15.02.2023)

2.11 The DHR apprised the Committee that shortfall in expenditure of Rs 89.02 crores in 2019-20 was due to less expenditure under secretariat head for non-filling up of vacant post and slow pace of expenditure under the schemes and less expenditure under the NER head. Similarly, for shortfall in expenditure to the tune of Rs. 937.71 crores in the year 2020-21, the DHR explained that it was due to steep fall in prices of testing kits, testing equipment/machines, re-agents, etc. as a result of indigenous production and decentralization of procurement to the States/UTs, less expenditure under Secretariat Head due to non-filling up of vacant posts, slow pace of expenditure under the schemes, ICMR and under the NER head in wake of COVID-19 Pandemic.

2.12 Again in 2021-22, the Department failed to fully-utilise (shortfall of Rs. 389.40 crores) the budgetary allocation at the RE stage, the Department informed the Committee that it was unable to fully utilise the allocated amount due to diversion focus and resources toward COVID-19 management during the second wave and thereby hampering of research activities and capital works, steep fall in prices of COVID-19 testing kits, testing equipment/machines, re-agents, etc. resulted in savings, receipt of less proposals toward research projects and non-receipt of proposals fulfilling scheme guidelines from implementing agencies under the schemes, less expenditure under Secretariat Head due to non-filling up of vacant posts, less tour undertaken and requirement of less funds toward establishment related expenses owing to COVID-19.

2.13 The Committee notes that in every financial year, the unused fund is a significant percentage of RE allocation. The Committee further observes that year after year the reasons behind inability to fully utilise the allocated fund are same i.e. non-filling up of

vacant posts, slow pace of expenditure under the schemes, ICMR and under the NER (north-eastern region), the Committee notes that the Department has done little to change the *status quo*. The Committee recommends that the Department must develop a robust mechanism for constant monitoring of projects/ schemes being handled by its implementing agencies/ organisations so as to identify without delay the factors causing under-utilisation of allocated fund.

2.14 The Committee while acknowledging that the boost in domestic production led to steep fall in prices of testing kits, testing equipment/ machines, reagents, etc, believes that the unutilised funds under this head could have been used by the Department to fund its underfunded schemes and the whole gamut of research activities, studies, awareness projects, etc. The Committee opines that the instances of under-utilisation of allocated fund have negative bearing on the Department's prospects of getting higher budgetary allocation in the succeeding financial year. The Committee therefore, recommends the Department to develop a visionary approach and boost fund absorption capacity of its implementing agencies so that the allocated funds are not surrendered at the end of the financial year.

2.15 The Committee further notes that it is an established fact that increase in public expenditure on health and likewise health research helps reduce Out-Of-Pocket Expenditure (OOPE) on health by common citizens. The Committee, therefore, recommends the Department to utilise the unused funds on spreading the network of testing and diagnostic facilities, bridging the critical gaps in infection surveillance systems, funding the research projects to make the treatment of chronic diseases like Cancer more affordable and accessible. The Committee is of the firm opinion that such measures would not only result in improvement of budget expenditure numbers of the Department but also in reducing the Out-Of-Pocket Expenditure (OOPE) on health by common citizens.

2.16 Replying to a specific query about schemes of the Department which have witnessed underutilisation of funds in 2022-23, the following information has been submitted by the DHR:

Table 5

(Rs. in crores)

S.No	Scheme/ Programme	Budget Head	BE 2022-23	RE 2022-23	Actual Upto 31.01.2023	Variation w.r.t RE (col.5-6) Excess (+)/ Savings(-)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Secretariat-Social	Secretariat-Social Services	48.00	43.35	24.82	(-)18.53

	Services					
2	Human Resource Development for Health Research	(i) Advanced Training in research in medicine and health	30.00	30.00	24.48	(-)5.52
		(ii) International cooperation in medical and health research	7.00	7.00	0.04	(-)6.96
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	27.00	24.00	22.60	(-)1.40
		Promotion & guidance on research governance issues.	23.65	23.65	15.84	(-)7.81
4	Managing epidemics and national calamities	Matters relating to epidemics & natural calamities	82.00	70.00	55.66	(-)14.34
		Development of Tools to prevent outbreaks of epidemics	15.00	15.00	9.16	(-)5.84
5	Development of infrastructure for promotion of health research	Establishment of Multi-disciplinary Research Units in Govt. Medical Colleges	60.00	48.00	24.66	(-)23.34
		Model Rural Health Research Units in the States	20.00	19.00	7.92	(-)11.08
6	Indian Council of Medical Research (ICMR)	Indian Council of Medical Research (ICMR)	2198.00	2116.73	2011.88	(-)104.85
7	PM-ABHIM		690.00	378.27	135.56	(-)242.71
		Total	3200.65	2775.00	2332.62	(-) 442.38

2.17 The Committee observes that in FY 2022-23, PM - Ayushman Bharat Health Infrastructure Mission (PM-ABHIM) scheme is the major laggard as far as the expenditure of the allocated fund is concerned. The scheme was allocated Rs. 690.00 crores in BE 2022-23, which was reduced to Rs. 378.27 crores in RE 2023-24 and out of this reduced budget the Department has only been able to spent Rs. 135.56 crores till date i.e. fund to the tune of Rs. 242.71 crores still remains unused. The Committee feels that the Department should have done the preparatory work *viz.* exploring expenditure avenues of the new scheme well in advance so that funds allocated do not remain unutilised.

2.18 The Committee notes that period of PM-ABHIM scheme is from 2021-22 to 2025-26 only and DHR/ICMR has a major role in implementing scheme's key components like bio-security preparedness, establishment of Integrated Public Health Laboratories in all 730 districts, setting up of a national institution for One Health, 4 New National Institutes for Virology, a Regional Research Platform for WHO South East Asia Region and 9 Bio-Safety Level III laboratories. Therefore, the Committee recommends the Department to address the shortcomings and bottlenecks which are hampering the smooth implementation of projects undertaken by the Department under the PM-ABHIM scheme as with only three years left in the period of scheme, the Department cannot afford to miss deadlines of completion of its projects otherwise it will not only lead to loss of precious money but also affect deadlines of other prospective projects.

CHAPTER – III

SCHEMES/PROJECTS OF DEPARTMENT OF HEALTH RESEARCH

3.1 Secretary, Department of Health Research submitted the overview of Projected Demand and Actual Allocation for DHR Schemes for the FY 2022-23 and 2023-24 as under:-

Summary of Projected Demand and Actual Allocation for 2022-23 and 2023-24 (DHR Schemes)

Table 6

(Rs. in crores)

Components	2022-23		2023-24	
	BE 2022-23	RE 2022-23	Projected Demand	BE 2023-24
DHR Schemes	264.65	236.65	242.06	242.06

3.2 A statement indicating scheme-wise projected demand and BE allocation for the year 2023-24 as given below:-

Table 7

(in Rs. crores)

S.No.	Scheme/Programme	Projected Demand	BE 2023-24
1	Setting up of nation -wide network of laboratories for managing national calamities(VRDL)	60.00	60.00
2	Establishment of Multi-disciplinary Research Units (MRUs)	60.00	60.00
3	Establishment of Model Rural Health Research Units (MRHRUs)	20.00	20.00
4	Development of tools/support to prevent outbreaks of epidemics	10.00	10.00
5	Human Resource and Capacity Development	92.06	92.06
Total		242.06	242.06

3.3 The Committee notes that though the Department has been allocated the exact budget it had projected for at the BE stage in 2023-24 but it is actually less than BE 2022-23. The Committee feels that while on one hand the mandate of the Department to spread the network of VRDLs, MRUs and MRHRUs is increasing every year, the decrease in

budgetary allocation acts as a retarding force which derails the Department’s objective of strengthening the research, testing and diagnostic infrastructure of the country. The Committee is disheartened to note that the DHR schemes, which serve the major part of the Department’s mandate, are allocated a mere 8.25% of the Department’s 2023-24 budget. The Committee, therefore, recommends that the targets set for different DHR schemes should be reevaluated and consequently readjusted to meet the new challenges post COVID-19 so that the research, testing and diagnostic infrastructure of the country at the primary and secondary level are better equipped to handle COVID-19 pandemic situations in the future.

ESTABLISHMENT OF NETWORK OF VIRAL RESEARCH AND DIAGNOSTIC LABORATORIES FOR MANAGING EPIDEMICS AND NATURAL CALAMITIES

3.4 India is facing a double whammy of emerging viral/ infectious diseases and ever increasing prevalence of non- communicable diseases. Though non- communicable diseases have high mortality rates, they comparatively give more time to policy makers and health experts to react and devise mitigation plans. On the other hand viral/ infectious diseases are sudden in nature and as a consequence offer minimal response time. In this scenario the most appropriate option is to prepare in advance i.e., developing an infrastructure that can withstand high virulence in the times of pandemics. In this context network of Viral Research and Diagnostic Laboratories (VRDLs) has played a significant role in surveillance, diagnosis and detection of outbreaks.

3.5 The Department submitted that the scheme provides for establishment of a total number of 166 VRDLs upto 2025-26 to serve as an important platform for diagnosis and surveillance of existing as well as emerging viral infections. It was also informed that presently there are 146 VRDLs comprising of (11 regional level, 27 state level and 108 medical college level) functioning throughout the country and these laboratories played a key role in testing and diagnosing during COVID-19 years.

3.6 A statement indicating target for setting up of VRDLs and actual number of VRDLs established for the past four years is as below:-

Table 8

Year	Target for VRDLs to be Set up	Actual number of VRDLs established
2020-21	18	17
2021-22	7	14
2022-23	12	10
2023-24	9	-

3.7 To a specific query regarding the measures taken by the DHR to equip the VRDLs with the latest tools and technologies to tackle/ contain future pandemics/ epidemics of the scale of the Covid-19 pandemic, the Department submitted that the VRDLs are equipped with state-of-the-art infrastructure and expertise to diagnose 15-20 medically important viral infectious pathogens of public health importance including all endemic viruses known to cause periodic outbreaks in the country. In addition, selected laboratories have strengthened with the sequencing infrastructure to facilitate the genomic surveillance of infectious agents. Also, some laboratories are further strengthening with the BSL-3 facility to combat/tackle any future epidemics/pandemics more efficiently.

3.8 The Committee notes that the target of the Department is to set up 166 VRDLs upto 2025-26 out of which 146 VRDLs have already been established and for the year 2023-24 the Department has planned to set up 9 more VRDLs, thus achieving total number of VRDLs at the end of FY 2023-24 to 155. The Committee further notes that though the Department has set up 146 VRDLs as on 21.02.2023, there are still many regions which have remained uncovered. Union Territories like Ladakh, Dadra and Nagar Haveli and Lakshadweep do not have a single VRDL. Similarly, number of VRDLs in the central part of India and eastern UP is not commensurate with the population of these regions. The Committee, therefore, recommends the Department to revise its target for setting up of VRDLs till 2025-26 and increase the spread of VRDLs in the uncovered regions of the country on priority. The Committee also feels that at least one regional level VRDL should be established in bigger states like Andhra Pradesh, Chhattisgarh, Gujarat, Maharashtra and UP. The Committee further recommends that all the VRDLs in the country should be strengthened with the sequencing infrastructure to facilitate the genomic surveillance of infectious agents, further all the regional level VRDLs should be strengthened with the BSL-3 facility to combat any future epidemics/pandemics more effectively.

3.9 To a specific query regarding the physical and financial performance of the scheme as against the target set for FY 2022-23, the Department has submitted as under:-

Table 9

(Rs. in crores)

Schemes/ Projects	Financial performance			Physical performance (Upto 31.01.2023)	BE 2023-24
	BE 2022- 23	RE 2022- 23	Expenditure upto 31.01.2023		
Setting up of nation-wide network of laboratories for managing national	82.00	70.00	55.66	Target: 12 Achievement: 10 VRDLs have already been set up till 31st January 2023 and the proposal for 2 new	60.00 crores

calamities (VRDLs)				VRDLs are under consideration which are expected to be finalized by the end of this Financial year. The RE allocation is expected to be fully utilised by the end of the financial year.
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3.10 The Committee appreciates that the Department is on course to achieve the target of setting up 12 VRDLs in the financial year 2022-23. The Committee, however, recommends the Department to take proactive efforts and guide the State Governments to identify the location for setting up of VRDLs well in advance and then submit their proposals for setting up of VRDLs within the deadline so as to avoid undue delay in establishing VRDLs.

ESTABLISHMENT OF MULTI DISCIPLINARY RESEARCH UNITS (MRUs) in GOVERNMENT MEDICAL COLLEGES/ RESEARCH UNITS

3.11 The Department has submitted that the scheme aims to provide infrastructural support to carry out bio-medical research in consonance with National health research priority outlined in National Health Policy of the country. The scheme will be functioning for the period of 15th Finance Commission (2021-22 to 2025-26) with the financial outlay of Rs. 288.11 crore for MRUs.

Table 10

(Rs. in crores)

Schemes/ Projects	Financial performance			Physical performance (Upto 31.01.2023)	BE 2023-24
	BE 2022-23	RE 2022-23	Expenditure upto 31.01.2023		
Establishment of Multi Disciplinary Research Units	60.00	48.00	24.66	Target – 6 Achievements: Six MRUs have been sanctioned (including three Units transferred from ICMR). Proposal for sanctioning six more MRUs is under process. The RE allocation is expected to be fully utilised by the end of the financial year.	60.00 crores

3.12 The Committee acknowledges the Department’s efforts to promote and encourage medical research in the country by developing the infrastructure for research in Government medical colleges. The Committee notes that total financial outlay for the year 2021-22 to 2025-26 is Rs. 288.11 crore. However, in 2022-23, the budgetary allocation for the scheme was reduced from Rs. 60.00 crores allocated at the BE stage to 48.00 crores at the RE stage out of which till 31.01.2023 the Department has only been able to spend only Rs. 24.66 crores. The Committee observes that with such pace of utilisation, it would be difficult for the Department to fully utilise the allocated amount of Rs. 288.11 crore for the period 2021-22 to 2025-26. The Committee apprehends that slackened financial performance would laggard the physical performance.

3.13 The Committee believes that effective implementation of this scheme can bring in the much needed revolution in the health research sector of the country as the medical colleges which are the bedrock of medical education in the country can set the ball rolling in developing the thinking process and innovative mindset to improve the understanding of pathogens, diseases and their management. In this context, the Committee recommends that the Department must work towards establishing a Multi Disciplinary Research Unit in each of the Government Medical Colleges in the country. Furthermore, taking cue from the Hon’ble Finance Minister’s recent announcement in the Budget 2023-24 speech wherein the Finance Minister announced that *“facilities in select ICMR labs will be made available for research by public and private medical college faculty and private sector Research & Developments teams for encouraging collaborative research and innovation”*, the Committee recommends that the Department must explore the possibility of establishing MRUs in the private medical colleges as well which would certainly boost the public-private collaboration in health research.

3.14 To a specific query regarding the details of the number of MRUs and VRDLs functioning in the North Eastern States, the Department submitted that there are 13 VRDLs and 9 Multi-disciplinary Research Units in the North East currently, the details of which are as below:-

Table 11

VRDLs functioning in North-Eastern States		
Sr. No.	States	No. of VRDLs
1	Assam	7
2	Arunachal Pradesh	1
3	Manipur	2
4	Meghalaya	1
5	Mizoram	1
6	Tripura	1
	Total	13

Table 12

MRUs functioning in North-Eastern States	
Manipur	1. Regional Institute of Medical Sciences, Imphal
Mizoram	1. Zoram Medical College, Mizoram
Nagaland	1. Health Laboratory & Research Centre (HLRC) Naga Hospital Authority, Kohima, Nagaland
Tripura	1. Agartala Govt. Medical College, Agartala
Assam	1. Silchar Medical College and Hospital, Silchar 2. Jorhat medical College, Jorhat 3. Fakhruddin Ali Ahmed Medical College, Barpeta 4. Assam Medical college and Hospital, Dibrugarh 5. Guwahati Medical College, Guwahati

3.15 The Committee notes that there are no VRDLs in the state of Nagaland and Sikkim. The Committee, in its 135th report had recommended that DHR should work in association with the State Governments of Nagaland and Sikkim and set up VRDL in these States. The Department in its Action Taken Notes had responded that, DHR will explore the potential sites in these States for establishment of VRDLs. The Committee reiterates that since VRDLs are key to mitigate challenges posed by viral pandemics, the DHR should put in concerted efforts to work towards establishing VRDLs in Nagaland, Sikkim and spread the VRDL network in North-Eastern region in general.

3.16 The Committee further notes that North- Eastern region has the highest caseload of cancer in India and there is high incidence of tobacco related Cancer in the North Eastern Region. Meghalaya and Arunachal Pradesh are two of the worst affected states in terms of incidence of cancer cases. The Committee feels that MRUs can play a key role in cancer research in determining factors causing high cancer cases in the North- Eastern region. The Committee, therefore, recommends that the Department must establish MRUs in Arunachal Pradesh and Meghalaya and fully equip the MRUs with state of the art research facilities so that the effective and viable research output can be generated.

ESTABLISHMENT OF MODEL RURAL HEALTH RESEARCH UNITS (MRHRUs)

3.17 The Department has submitted that transfer of research findings/ technologies at the rural level has been found to be major lacuna in providing quality medical services to the rural population, to bridge this gap, the Department established Model Rural Health Research Units (MRHRUs) in the rural areas under the mentorship of ICMR institutes. The scheme will be

functioning for the period of 15th Finance Commission (2021-22 to 2025-26) with the financial outlay of Rs. 192.36 crore.

Table 13

(in Rs. crores)

Schemes/ Projects	Financial performance			Physical performance (Upto 31.01.2023)	BE 2023-24
	BE 2022-23	RE 2022-23	Expenditure upto 31.01.2023		
Establishment of Model Rural Health Research Units	20.00	19.00	7.92	Target – 2 Achievement – NIL (It is, however, expected that the target of sanctioning two MRHRUs may be met before the close of the year)	20.00 crores

3.18 The Committee notes that MRHRUs are key to create infrastructure for transfer of technology to the rural areas for improving quality of health services. The Committee observes that the Department has not been able to meet its target of setting up 2 MRHRUs for the year 2022-23 accordingly the budget allocated for the scheme has also remain unutilised. The Committee urges the Department to realize the importance of the scheme and work assiduously towards achieving the intended targets. The Committee further recommends that the Department should revise the overall target of the scheme for the year 2021-22 to 2025-26 to better utilise the allocated budget of Rs. 192.36 crore and increase the spread of MRHRU to nourish the rural health research infrastructure.

PRIME MINISTER ATMA NIRBHAR BHARAT HEALTH INFRASTRUCTURE MISSION (PM-ABHIM)

3.19 With an aim to strengthen public health infrastructure and effectively manage and respond towards any future pandemics and outbreaks, the PM-Ayushman Bharat Health Infrastructure Mission (PM-ABHIM) was announced in Budget 2021-22 on 1stFebruary 2021. The PM-ABHIM is a Centrally Sponsored Scheme with some Central Sector Components.

3.20 The total financial outlay for the scheme period (2021-22 to 2025-26) is Rs 64180 Crore out of which amount of Rs 54204.78 Crore is for implementation of Centrally Sponsored Scheme Components and Rs.9339.78 Crores for implementation of Central Sector components. In response to a query regarding role/mandate of DHR/ICMR as far as implementation of the objectives of the scheme is concerned, the Department apprised the Committee that the DHR is entrusted with a slew of activities, to be implemented by the ICMR, under the PM-ABHIM

Mission Mode Program, totalling Rs.1670/- crores, spread over five financial years between 2020-21 to 2025-26.

3.21 In reply to a query regarding details of expenditure of Rs. 690.00 crores during 2022-23 to PM- ABHIM scheme, the Department furnished the following information:-

Table 14

(Rs. in crores)

Sl. No .	Component	BE 2022-23	RE 2022-23	Expenditure	Achievements
1	Resources for COVID-19 Emergency Response	323.00	81.00	81.00	Testing kits, reagents, lab, and equipment have been procured.
2	Bio-security preparedness:	109.00	90.00	23.11	Guidelines for upgrading 5 VRDLs into BSL-III labs have been finalized and centres have been identified. The mobile BSL-III labs have been developed and validated.
3	Strengthening Pandemic Research and Multi - Sector National Institutions and Platforms for one Health	256.00	205.49	31.20	RESEARCH Platform The scheme guidelines for RESEARCH platform has been prepared. MoU has been signed with Nepal, Myanmar, and Thailand and the process for signing of MoU with the remaining countries are ongoing. Establishment of 4 regional NIV: Locations for establishing regional NIVs have been finalized except, Jammu. For Jammu, the location is being finalized. Land has been allocated and

					<p>construction activities for the establishment of the regional NIVs have been allotted to CPWD. Tenders have been floated by CPWD. The bids received and evaluation process of bids is ongoing in CPWD.</p> <p>Establishment of Centre for One Health at Nagpur Land has been finalized and work has been awarded to CPWD. Tenders were published. Three Bids received. Evaluation process is ongoing at CPWD.</p>
4	Community Engagement and Capacity building	2.00	1.77	0.25	Trainings at different locations for the nearby labs have been identified and few conducted
	Total	690.00	378.27	135.56	

3.22 The Secretary, Department of Health Research in his presentation before the Committee submitted that underutilisation in PM-ABHIM scheme is due to steep fall in prices of testing kits, testing equipment/machines, re-agents, etc. as a result of indigenous production and also decentralization of COVID-19 related procurement to the States/UTs, two other reasons for non-usage of allocated funds is complex nature of tendering process for establishment of BSLIII and BSL IV labs and Regional Research Platform for WHO South East Asia Region which involves co-ordination and MoUs with south East Asian countries.

3.23 The Committee notes that 2021-22 is the second year of the implementation of the PM- ABHIM scheme. The Committee observes that the Department has been able to utilise just about 20% of its BE allocation. Considering that the scheme has a fixed timeline for completion, the Committee is surprised that the activities under the scheme have not moved beyond nascent stages of implementation. The Committee feels that the Department should have worked out the details of the activities under the scheme well in advance so that funds allocated for the implementation of these activities do not remain idle. The Committee recommends the Department to expedite the processes and complete the procedural formalities viz. tendering and allocation of projects at the earliest so that

implementation of the scheme does not fall far behind the schedule. The Committee is disheartened to observe that the Department has done little preparatory exercise before implementing the components of such a crucial scheme. However, the Committee is hopeful that the Department will do a course correction and iron out the chinks in its processes to finish the projects under the scheme within the deadline.

3.24 As per the Note on PM-ABHIM scheme; the centrally sponsored component of the scheme includes setting up Integrated Public Health Laboratories (IPHL) in all 730 districts of the country with the aim to optimise access to laboratory services, quality assurance efforts, cost-effectiveness, and efficient use of human resources. The objectives of IPHL are to strengthen the infectious and non-infectious disease surveillance system, to provide accurate data for enhancing timely response for disease outbreak, to provide mentorship to block Public Health Lab and serve as diagnostic hub for block CHC labs (spokes) and to support laboratory investigations of outbreaks. The Department further submitted that Central Sector Components of the scheme includes setting up of a national institution for One Health, 4 New National Institutes for Virology (NIV), a Regional Research Platform for WHO South East Asia Region and 9 Bio-Safety Level III laboratories.

3.25 In reply to a specific query on the activities under central sector components of the PM-ABHIM scheme which are to be implemented by DHR, the following details was furnished by the Department:-

- i. Institute for one Health, Nagpur: The works related to the establishment of the regional NIVs, Centre for One Health awarded to CPWD in 2021-22 and the tenders are being finalized. It is expected that the infrastructure will be created in 15 months after the award of the contract. Rs. 112.80 crore has been allocated for the construction of the Institute and Rs. 50.00 crores has been released to CPWD to undertake the work.
- ii. Four (4) National Institute of Virology at Dibrugarh, Chandigarh, Bengaluru and Jabalpur:
 - NIV Dibrugarh: Civil work awarded to CPWD. CPWD floated tenders which three bidders have responded and the evaluation of bids is under process. Tree cutting and ground clearance work has been completed by CPWD with the approval of concerned local / state authorities. Rs. 97.13 has been allocated and 27.00 crores have been released to CPWD to undertake the work.
 - NIV Bangaluru: Civil work awarded to CPWD. CPWD floated tenders which three bidders have responded and Evaluation of bids is under process. Simultaneously, CPWD is under process of getting necessary approvals from concerned local state authorities to start tree cutting and ground clearance work on the site. Rs 57.01 have been allocated and 15.00 crores has been released to CPWD to undertake the work.

- NIV Jabalpur : Civil work awarded to CPWD. CPWD has to modify Drawings, Plans, and Preliminary Estimates, due to change in locations made later on by ICMR. Preparation of Detailed Estimates is ongoing at CPWD. Simultaneously, CPWD is in the process of preparation of Notice inviting Tenders. Tree cutting and ground clearance work completed by CPWD with the approval of concerned local/State authorities. Rs. 60.00 crore has been allocated and Rs. 15.20 crores has been released to CPWD to undertake the work.
 - NIV Chandigarh : This project is to be shifted to Jammu, due to land dispute at Chandigarh. Jammu UT authority has identified one area, which was declared unsuitable by a Committee. Now Jammu UT has proposed three more sites. ICMR Experts team is scheduled to visit Jammu shortly. Rs. 59.07 crore have been allocated and Rs. 17.00 crores released to CPWD.
- iii. Regional Research Platform for WHO South East Asia Region: The scheme guidelines for RESEARCH platform has been prepared. MoU has been signed with Nepal, Myanmar, and Thailand and the process for signing of MoU with the remaining countries are ongoing. Rs. 200 crore has been allocated and the scheme guidelines for RESEARCH platform have been prepared. Rs. 1.45 crore incurred on workshop on TB capacity building for WHO SEARO countries.
- iv. 9 Bio- Safety Level III laboratories: Rs. 185.00 crore has been allocated and Guidelines for upgrading 5 VRDLs into BSL-III labs have been finalized and centres to be upgraded have been identified. The process is expected to be completed in 2 years. 02 mobile BSL-III vans have been developed through PPP mode and engaged by ICMR on rental basis and stationed at ICMR-NIV Pune and ICMR-RMRC Gorakhpur and these have been validated.

3.26 The Committee welcomes the decision to set up one Integrated Public Health Laboratories (IPHL) in all the districts of the country, the Committee hopes that network of IPHL along with VRDLs which are set up at regional, state and medical college level, will greatly improve the common citizen's access to efficient, cost-effective and quality laboratory services in the remotest corner of the country.

3.27 The Committee notes that all the critical projects viz. Institute for one Health, Nagpur, four regional NIVs, and Regional Research Platform for WHO South East Asia Region under the PM-ABHIM are yet to see the light of the day. The Committee views the shift in location of NIV from Chandigarh to Jammu as a lack of Co-ordination between the Department and State Government. The Committee feels that such last minute changes only cause unnecessary delay in the projects and in that turn procrastinate the completion of the other associated projects. The Committee recommends the Department to finish the tendering process at the earliest and begin the civil construction work so as to adhere to the deadline of finishing the projects within 15 months.

3.28 The Committee also recommends the Department to complete the signing of MoU work with remaining member countries for the Regional Research Platform for WHO South East Asia Region and begin the civil construction work at the earliest.

3.29 In reply to a specific query on the number of BSL-IV and BSL-III labs operating the country, the Department stated that one BSL-IV and 29 BSL-III labs have been sanctioned by the DHR-ICMR. Currently, BSL-IV lab is operational at NIV, Pune. Among BSL-III labs, 13 are operational including 2 mobile BSL-3 vans, 5 are under construction, and 11 are in different stages of planning or tendering. List of operational BSL labs is given below–

Table 15

Sr. No.	Operational BSL Labs	Biosafety level
1.	ICMR-NIV, Pune	BSL-III
2	ICMR-RMRC, Dibrugarh	BSL-III
3	ICMR-NJILOMD, Agra	BSL-III
4	ICMR-NARI, Pune	BSL-III
5	ICMR-NIRT, Chennai	BSL-III
6	ICMR- RMRC Port Blair	BSL-III
7	ICMR-NARFBR, Hyderabad	ABSL-III
8	Regional VRDL-PGIMER, Chandigarh	BSL-III
9	Regional VRDL-AIIMS, Jodhpur	BSL-III
10	Regional VRDL-AIIMS, Bhopal	BSL-III
11	Regional VRDL-JIPMER, Puducherry	BSL-III
12	ICMR-NIV, Pune	Mobile BSL-III van
13	ICMR-RMRC, Gorakhpur	Mobile BSL-III van

3.30 The Committee acknowledges the efforts of the Department to increase the number of BSL-III labs functioning in the country. The Committee appreciates the Department’s innovative concept to set up Mobile BSL-III van. The Committee feels that such mobile laboratories are the best possible solution to provide on-site diagnosis with a rapid turnaround in remote and unreachable areas of the country where it is difficult to set up brick and mortar lab facility. The Committee, recommends the Department to set up more such mobile BSL-III labs and also to commence the operations in all the 29 BSL labs at the earliest.

CHAPTER-IV

INDIAN COUNCIL OF MEDICAL RESEARCH, NEW DELHI

4.1 The Secretary in his oral evidence submitted that Indian Council of Medical Research (ICMR), which is an autonomous body, is the main evidence or research producing body under the Department of Health Research. ICMR along with its 27 research centres spread across the country is responsible for conducting, coordinating and implementing medical research in the country.

4.2 The Department has submitted following details *w.r.t* the budgetary allocation of ICMR:-

Table 16

(Rs. in crores)

Financial Year	Projected Demand	BE allocation	RE allocation	Actual expenditure
2020-21	1795.71	1795.71	1611.79	1580.78
2021-22	2358.00	2358.00	2004.69	1841.16
2022-23	2198.00	2198.00	2116.73	2022.91 (upto 15.02.2023)
2023-24	2459.58	2359.58		

4.3 A statement indicating comparison of budgetary allocation with ICMR and other research councils is indicated below:-

Table 17

(Rs. in crores)

Si.No.	Prominent Research Councils in India	Allocation in BE 2023-24
1	Indian Council of Medical Research (ICMR)	2,359.58
2	Council of Scientific and Industrial Research (CSIR)	5,675.51
3	Defence Research and Development Organisation (DRDO)	23,264.00
4	Department of Space	12,543.91
5	Indian Council for Agricultural Research (ICAR)	6384.59

4.4 The Committee is pleased to note that budgetary allocation to ICMR and actual expenditure has witnessed a gradual increase over the past four financial years. The Committee, however, still feels that the budgetary allocation to the ICMR- country's premier medical research institution is not commensurate with the constantly expanding

mandate of the ICMR. The Committee notes that the COVID-19 pandemic has highlighted the importance of investing in an integrated regional, State and National level research infrastructure to protect the health of a Nation. The Committee notes that most of the budget allocated for research in India is generally allocated to domains like atomic research, defense research and space research as a result India has done remarkably well in these sectors, however the most basic but most important sector i.e. research in health has often being under funded. For instance, both CSIR and ICMR were established in 1940s; however, today CSIR has grown exponentially with almost the double budgetary allocation than ICMR.

4.5 Taking note of the budget allocation to the research councils, the Committee observes that the public investment in health research is still grossly insufficient. The Committee, therefore, recommends that to develop and strengthen the health research infrastructure and invigorate the zeal for medical research in a diverse and vast country like India requires significant funding. The Committee is of the view that the DHR must come up with a strategic roadmap to increase its activities and enhancing its existing schemes/programmes/facilities. This would enable the Department to seek enhanced budget allocation and thereby increasing the funds available for health research.

4.6 The Secretary, Department of Health Research (DHR) in his presentation before the Committee submitted the expenditure details of the ICMR for the year 2022-23 as indicated below:-

Table 18

(Rs. in crores)

	Head	Total
A	Grand-in-Aid General	
1.	Extramural Expenditure	630.00
2.	Intramural Expenditure	664.70
B	Salaries	691.00
C	Creation of Capital Assets	131.00
	Grand Total (A+B+C)	2116.7

	Research Area	Extramural Expenditure	Intramural Expenditure
1	Communicable Diseases	183.00	270.80
2	Non-Communicable Diseases	177.5	123.10
3	Nutrition and RMNCH	77.40	73.90
4	Basic and Other Research	192.10	197.00
	Total	630.00	

4.7 The Committee notes that ICMR spent around Rs. 1300 crores for research purposes in FY 2022-23. The Committee, opines that considering India is facing multiple challenges on health front like rise in communicable diseases, non-communicable diseases like hypertension, Cancer and severe malnutrition, anemia in various pockets of the country, there is urgent need for ICMR to spend much more than Rs. 1300 crores on research. Limited budgetary allocation for research in health is a major reason behind the slow progress in the field of medical research The Committee feels that lack of research is a systemic problem that pervades through entire hierarchy of health system viz. medical colleges, institutes, hospitals and research institutions. The Committee believes that to promote research, the ICMR should further increase its extramural expenditure. ICMR should operate in cohesion with managements of Government medical colleges, top faculties of such colleges should be identified and provided with a certain amount per year as research grant, this may help generate more research output.

4.8 The ICMR, in association with National Medical Commission (NMC) should come out with policy/ guidelines to promote interest for medical research amongst undergraduate/ postgraduate medical students, students need to be exposed to research and not take it as an added burden. The policy/ guidelines should include ways to ensure that research should be part of the teaching program and adequate funds should be provided to ensure facilities and infrastructure for the same.

4.9 To a specific query regarding recent surge on ‘heart-attack’ cases and whether ICMR has undertaken any research on long term side effects of vaccines *w.r.t* cardio vascular diseases, autoimmune diseases etc, the Department submitted that ICMR and National Centre for Disease Control (NCDC) are exploring two approaches to investigate causes of sudden death. The first approach is retrospective case-control studies to determine the risk factors associated with sudden death, such as a recent Covid infection. The second approach will prospectively investigate sudden deaths in young adults. It will use a virtual autopsy, in case a real autopsy is not possible, wherein a CT scan will be done to understand the cause of death. This facility has been developed in AIIMS New Delhi. The study team will include experts in forensic medicine, pathology, radiology, neurology and cardiology. These studies will be reviewed and monitored by a committee of experts including epidemiologists, clinicians, pathologists, forensic medicine experts and public health specialists. Details of this committee will be available soon.

4.10 The Committee feels that ICMR has a very important role, particularly in the current post COVID scenario where there is a sudden surge in the myocardial infarctions in the seemingly fit people. The Committee is glad to note that ICMR has taken cognizance of this issue and has set approaches to investigate causes behind these unexplained death cases. The Committee is hopeful that adequate budgetary support would be provided to undertake these studies and it will be completed in a time bound manner. The Committee notes that though there is insufficient evidence/data to prove whether these sudden deaths have been due to COVID-19 vaccines, but these cases of sudden deaths due to myocardial infarctions have definitely increased post COVID. The Committee, therefore, recommends

the ICMR to give evidence based clarification on the basis of the findings of its planned studies on this.

4.11 To a specific query regarding the realistic chances of eradicating TB by 2025 from India and major hurdles in achieving this target, the ICMR apprised the Committee that all the stakeholders are working together to achieve this goal. DHR/ ICMR has been working in a mission mode to develop new tools for TB diagnosis, newer drugs and shorter regimens for TB treatment, vaccines and other preventive therapies and novel implementation strategies to support the National Programme in its goal of TB elimination by 2025.

4.12 The Committee was apprised that the three major hurdles in achieving this target were - availability of the diagnostics and screening tools at all levels of the health care system; issues related to access to TB services by patients and awareness about TB facilities; and diagnosis and treatment of Latent TB and preventive therapy in high risk population. ICMR further stated that it has developed state specific model including novel interventions for one district each from all States/UTs and is being initiated in phases in project mode for demonstration of TB elimination from the selected district. This will help the respective States/UTs to scale up the intervention, if found to be successful. Along with the novel interventions and processes, it also involves involvement of all major stakeholders and partners for implementation of the interventions to make it sustainable for States/UTs after the project is completed. DHR-ICMR has been committed towards TB elimination and making efforts to develop newer tools to tackle TB in a mission mode to enable the national Programme to achieve the target of 'End TB 2025'.

4.13 ICMR highlighted the significant achievements as mentioned below:

- **National TB Prevalence Survey:** to assess the true national and state-wise burden of TB and latent TB along with health seeking behaviour was undertaken, which is a significant contribution and will help immensely in tackling TB elimination of India.
- **Diagnostics:** Two new cost effective Make in India tests developed and recommended for use under NTEP:-
 - TrueNat - validated for detection of TB/MDR-TB, paediatric TB and Extra pulmonary TB (in addition to pulmonary TB) and is currently used under NTEP.
 - Path detect M.TB- validated for detection of TB/MDR-TB (detects resistance to Rifampicin & INH both)
 - Three new kits validated and recommended for use under NTEP *i.e.*,
- **Therapeutics:**
 1. For Drug sensitive TB: ICMR recommended use of high dose rifampicin (25mg/kg BW) for Drug sensitive TB in the current standard treatment used under NTEP for better treatment outcome.

2. For XDR-TB: All oral 6-9 months 4 drugs short regimen with i.e. Bedaquiline, Delamanid, Clofazimine and Linezolid found effective for treatment of XDR-TB. Recommended to NTEP
- **Vaccines:** A Phase III regulatory clinical trial for evaluating the safety and efficacy of two TB vaccines: VPM1002 and MIP (indigenous vaccine), as against Placebo is ongoing at 8 main sites with 10 sub-sites was initiated in mid-2019. The trial completed enrolment of 12717 participants in December 2020 & follow-up is ongoing.
 - **Implementation Research:** Two evidence based active/intensified case finding strategies for improving TB case detection under NTEP recommended:
 - ✓ In severely malnourished children admitted to Nutritional Rehabilitation Centers (NRC) through proper training and use of new molecular tests.
 - ✓ In High-risk groups in secondary care hospitals: Routine screening for symptoms (cough/fever, haemoptysis, weight loss, night sweats) & Chest X-testing for high risk groups visiting health care facilities for any reason i.e all patients aged 60 years or more, diabetics, HIV +ve, admitted patients in medical wards. One spot sputum in case of symptomatic and X-ray positives has been found to be equally effective as 2 spot and one overnight sputum sample.
 - ✓ A large RCT in a community with high prevalence of undernutrition has demonstrated that nutritional support for 6 months to the contacts reduced TB incidence by one-third and nutritional support given to patients with pulmonary tuberculosis of which the majority were underweight can potentially reduce mortality by more than one-third.

4.14 The Committee acknowledges the positive attitude of DHR/ICMR towards achieving the goal of eradicating TB by 2025. The Committee takes note of the measures and research projects undertaken by ICMR to fight TB and arrest its further spread. The Committee notes the effectiveness of “TrueNat” in detecting MDR-TB, and recommends ICMR to ensure availability of “TrueNat” in all the PHCs and CHCs of the country. The Committee also recommends the ICMR to expedite the clinical trials, follow ups and other approvals of the VPM1002 and MIP vaccines for TB, so that these vaccines can be rolled out for public use at the earliest. The Committee further recommends the DHR/ICMR to spread awareness regarding TB amongst masses by taking comprehensive measures viz. through advertisements during sports tournaments like IPL, commercials before movies (like tobacco control programme for Cancer) in cinema halls.

4.15 The Committee notes that the twin problem of malnutrition and tuberculosis pose challenge to Health orders in considerable magnitude in certain States in the country. These two problems tend to interact with each other as nutritional status is significantly

lower in patients suffering from tuberculosis. Similarly, malnutrition can lead to immunodeficiency which increases the person's susceptibility to infection. In this light, the Government's push for 'Shree Anna' (coarse grains) or millets as announced in Union Budget 2023-24 can play a key role in addressing the challenge of malnutrition particularly in children in India. The Committee therefore recommends the ICMR to undertake a research project in coordination with Indian Institute of Millet Research and develop a diet chart constituting different types of Shree Anna including Raagi, Bajra, Jowar, Ramdana, etc. The Committee is hopeful that this diet chart if included in PM-POSHAN (Pradhan Mantri Poshan Shakti Nirman) Scheme can go a long way in improving the nutritional status of children in India and thereby reducing the TB case load in the country.

4.16 In response to a specific query regarding survey done by ICMR along with the state government of Bengal on Covid-infected patients to assess their mental health, ICMR submitted that an on-going study, findings are being analysed. They have also submitted details of other similar studies conducted as below:-

(i) Psychological distress and burnout among healthcare worker during COVID-19 pandemic in India : A cross-sectional study

4.17 Overall, 52.9% of the participants had the risk of psychological distress that needed further evaluation. Risk of psychological distress was significantly associated with longer hours of work i.e. more than 8 hours a day, income \geq 20000, involved in screening of COVID-19 patients and contact tracing. About 4.7% of the Healthcare workers (HCWs) were overextended, 6.5% were disengaged and 9.7% HCWs were showing signs of burnout (high on all three dimensions). The risk of psychological distress is higher in females 56.1% as compared to males 49.2% which supports the results of the previous studies which reported that prevalence of anxiety and depression was more among females 39.3% as compared to males 24.6% among health care professional who were involved in the COVID-19 care treatment. The median Emotional Exhaustion (EE) score was statistically significant in respondents living alone as compared to those living with family. 50% of the HCWs reported that they most often kept thinking about work-related issues even during off duty hours, which prevented them from enjoying with their families. Nearly 35% of the HCWs felt sleepless and had loss of appetite, felt frustrated and constantly worried about their work.

(ii) Psychosocial impact of COVID-19 pandemic on healthcare workers in India & their perceptions on the way forward : A qualitative study

4.18 HCWs report major changes in work-life environment that included excessive workload with erratic timings accentuated with the extended duration of inconvenient personal protection equipment usage, periods of quarantine and long durations of separation from family. Family-related issues were manifold, the main challenge being separated from family, the challenge of caregiving, especially for females with infants and children, and fears around infecting family. Stigma from the community and peers fuelled by the fear of infection was manifested through

avoidance and rejection. Coping strategies included peer, family support and the positive experiences manifested as appreciation and recognition for their contribution during the pandemic.

(iii) COVID-19 Pandemic and Stepped Care Model for Perinatal Depression in Rural India : Lessons Learned and the Way Forward

4.19 Despite many challenges, the stepped care model was found to be sustainable, effective and feasible for providing mental health services in the remote and rural regions of India. Some efforts with limited success were also made to address the COVID-19 specific mental health issues. Addressing challenges and barriers experienced during a pandemic can improve mental health services during public health emergencies and disasters in the future.

4.20 The Committee notes that COVID-19 pandemic has had a severe and long-lasting impact on the mental health and well being of the people, in addition, limited access to mental health services has only worsened the situation. Also, no comprehensive study/ data on the impact of COVID -19 on mental health until now have been made available. The Committee, therefore, is happy to note that Indian Council of Medical Research (ICMR) along with the State Government of West Bengal is conducting a survey on COVID -19 infected patients to assess their mental health and recommends ICMR to do a similar survey at pan India level. The Committee believes that a comprehensive nation-wide survey particularly on the impact of Covid-19 on mental health may be helpful in ascertaining the mental hardships and trauma faced by people during the times of pandemic and the findings thus generated may be helpful in upgrading and improving the mental health services during public health emergencies and disasters in the future. The Committee also recommends the ICMR to explore the possibility of using the ‘Stepped Care Model’ to address the depression issues in old age population and jobless youth.

DIAMOnDS - Oncopathology Services: Establishing DHR-ICMR Advance Molecular Oncology Diagnostic Services (DIAMOnDS)

4.21 This initiative of ICMR aims to set up zonal oncopathology labs to provide basic as well as high-end advance diagnostic services to cancer patients and research facilities for basic, translational and clinical research. These laboratories are established in Government Medical Colleges that will ensure the optimum utilisation of facilities available there, in terms of equipment and manpower.

4.22 The following institutes are now in place under DIAMoNDS project:

Table 19

S. No.	Zone	Established Centre (DIAMONDS Hub)	Regional Centre	To be Established Centre (DIAMONDS Centre)
1	North	AIIMS (New Delhi)		State Cancer Institute- Lucknow Pandit Bhagwat Dayal Sharma Post Graduate Institute of Medical Sciences, Rohtak, Haryana
2	South	CMC (Vellore)		JIPMER- Puducherry Regional Cancer Centre, Trivandrum, Kerala Nizam's Institute of Medical Sciences, Hyderabad, Telangana
3	North East	TMC (Kolkata)		Cachar Cancer Hospital and Research Centre (CCHRC)- Silchar RIMS, Imphal AIIMS, Bhubaneswar
4	West	Tata Hospital (Mumbai)	Memorial (TMH)	AIIMS-Jodhpur, Rajasthan

4.23 The Committee observes that India is facing an unprecedented surge in non-communicable diseases and Cancer is one such chronic disease which is growing at an alarming rate in India. Unfortunately, India's healthcare system particularly outside urban centers is not equipped to handle this surge due to acute paucity of diagnostic and treatment facilities. With epidemic of Cancer lurking like any epidemic the ICMR must devote more time and fund for Cancer Research Projects that are aimed at how to make the cancer treatment more affordable and accessible. The Committee is of the opinion that stress should be on the need for cancer prevention, early diagnosing and screening. The Committee, therefore, recommends the ICMR to spread the network of such oncopathology labs under the DIAMONDS scheme. The ICMR should set up more such labs in North-Eastern States where the incidence of Cancer is more than other States. DHR/ICMR should use the infrastructure of Multi Disciplinary Research Units which have a much bigger network to provide early detection, screening and diagnostic facilities for cancer. The Committee was informed that ICMR has issued Standard Operating Procedure (SOP) for treatment of few types of Cancer. The Committee recommends the ICMR to issue SOP for all types of Cancer treatment including surgery, chemo therapy, radiation therapy and palliative therapy.
