**GOVERNMENT OF INDIA**
**MINISTRY OF HEALTH AND FAMILY WELFARE**
**DEPARTMENT OF HEALTH RESEARCH**

**LOK SABHA**
**UNSTARRED QUESTION NO. 5657**
**TO BE ANSWERED ON 27TH MARCH, 2026**

# ICMR RESEARCH OVERVIEW

**†5657. SMT. MANJU SHARMA:**

Will the Minister of **HEALTH AND FAMILY WELFARE** be pleased to state:

(a) whether the Government has initiated new research projects in various laboratories and other autonomous institutes of the Indian Council of Medical Research (ICMR) to address the severity of various diseases, if so, the details thereof along with the total quantum of funds spent in this regard so far;

(b) the details of the successful projects launched by the ICMR and other autonomous institutes during the last five years; and

(c) the details of the challenges being faced by the Government in the adequate utilization and implementation of the products developed through the said researches?

**ANSWER**
**THE MINISTER OF STATE IN THE MINISTRY OF HEALTH AND FAMILY WELFARE**
**(SHRI PRATAPRAO JADHAV)**

(a) to (c): The Indian Council of Medical Research (ICMR) has supported and funded research projects to address the severity of various diseases. These projects have been undertaken in ICMR institutes as well as in other Government and non-Government medical research institutions across the country. The quantum of funds disbursed in the last 5 years is approximately Rs. 7140.39 crore. More than 6500 research projects have been initiated in the last five years. The major achievements from 2020-2025 are listed below:

1. COVID-19 Response & Development of Covaxin: ICMR partnered with Bharat Biotech India Limited for Covaxin development. It provided the isolated strain, provided lab and technical support in animal studies and phase I & II human clinical trials and provided technical, lab & financial support for Phase III human trials was part of national COVID-19 immunization drive. Apart from the development of vaccine, ICMR led India′s pandemic response by rapidly expanding testing from a single lab to over 3,000 nationwide, ensuring equitable access and scaling capacity to over 20 lakh tests daily. It drove indigenous diagnostics, reduced testing costs, and pioneered virus

isolation and variant tracking through INSACOG. It led global-standard clinical trials, national serosurveys, and real-time registries to guide policy. Through evidence-based advisories and coordinated action, ICMR strengthened India′s scientific preparedness, response efficiency, and public health resilience during the crisis.

2. Tuberculosis Elimination and Innovations: ICMR has advanced TB elimination through indigenous innovations and evidence-based interventions.

i. Validated three indigenous lightweight, portable, low-radiation handheld X-ray machines, enabling TB screening among remote and vulnerable populations. Deployed in the national 100-day intensified TB campaign.

ii. AI-based X-ray Interpretation (DeepCXR) has been approved for programmatic use as a screening tool, offering fast and accurate TB detection-free of cost to NTEP.

iii. CyTB Skin Test: A low-cost indigenous test for latent TB infection with 80% sensitivity and 72% specificity, outperforming traditional tuberculin tests and providing an affordable alternative to costly IGRA.

iv. PathoDetect™ Molecular Test detects TB and dual drug resistance (RIF and INH) with high sensitivity and specificity, enhancing rapid, simultaneous diagnosis and drug-resistance detection at scale.

v. ICMR′s clinical trial on modified BPaL Regimen demonstrated that 300 mg Linezolid in the WHO-recommended 6-month BPaL regimen is equally effective but with fewer side effects, improving completion rates for MDR-TB treatment.

vi. Quantiplus® MTB kit, First Open RT-PCR TB Test, validated with 86% sensitivity and 96% specificity, can leverage 20,000+ existing RT-PCR machines from the COVID-19 network, dramatically expanding TB molecular testing access.

3. Medical Devices, Diagnostics, Vaccines & Therapeutics: The intramural network as well as collaborations with IITs have led to the development of many medical technologies including:

i. Portable Diagnostic Devices: Mobilab, a portable blood testing device, and HemoQR, a paper-based point-of-care device for hemoglobin detection.

ii. AI-Enabled Devices: Handheld X-ray devices for TB diagnosis and Cerebro, a non-invasive brain injury diagnostic tool.

iii. First in the world Open system RT-PCR kit for Tuberculosis which can be used on any PCR machine.

iv. POC Diagnostic Kits: Development of point-of-care diagnostic kits using CRISPR-CAS technology for diseases like TB, malaria, and scrub typhus. Other kits include those for silicosis, Mpox, and Chikungunya.

v. A paediatric formulation of isotretinoin (13-cis-retinoic acid) for high-risk neuroblastoma

vi. Oral suspension powder of 6-mercaptopurine (PREVALL) for Acute Lymphoblastic Leukaemia (ALL) at one tenth cost of its international comparators.

vii. Immunogenicity and safety study of Oral Cholera Vaccines (OCV) Euvichol-Plus: granted licensure for use in India.

4. India Hypertension Control Initiative (IHCI): The program, implemented in over 20,000 government hospitals and health centres across 150 districts in 26 States, managed over 34 lakh hypertension and 14 lakh diabetes patients. The app has increased blood pressure control rates from 32% to 46% in 24 months. IHCI was awarded the 2022 UN Interagency Task Force and the WHO Special Programme on Primary Health Care Award in 2022. Analysis of the IHCI drug regimen led to the inclusion of Amlodipine 5 mg as the first-line treatment for hypertension in all state protocols.

5. Revolutionizing Healthcare System through use of drones: ICMR′s i-Drone project has revolutionized healthcare delivery in remote areas by efficiently transporting vaccines, medical supplies, and clinical samples using drone technology, overcoming logistical challenges in difficult terrains. The initiative has also extended to critical healthcare interventions like blood transfusions, intraoperative pathology & corneal transplant, significantly reducing transport times and improving patient outcomes.

6. STEMI patient care in remote setting: Indian Council of Medical Research has implemented STEMI ACT project in six districts. ST-segment elevation myocardial infarction (STEMI) is a type of heart attack. The aim of the project was to examine whether the creation of a network of hubs (medical colleges) and spokes (district hospitals [DH], sub-district hospitals [SDH], and community health centers [CHCs]) in a district can improve thrombolytic rates in STEMI patients through a physician-based tele-ECG-guided thrombolytic therapy model. The STEMI project showed that a pharmaco-invasive approach (an early thrombolysis in STEMI patients in a remote facility combined with angiography and angioplasty at a higher tertiary care facility) can be used to provide care to STEMI patients in a remote setting

The key challenge is in partnership of academia, government and industry for effective development and use of innovative products. To overcome these challenges, ICMR has launched three initiatives: MedTech MITRA (for hand-holding of MedTech Innovators for regulation compliant development of products), Patent MITRA (for filing the patents and technology transfer) and INTENT (for regulation compliant clinical evaluation). These are supporting the researchers and innovators to meet all the challenges faced during the development of regulation compliant products. Thereby strengthening the adequate utilization and implementation of research developed products.

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