

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

**LOK SABHA
UNSTARRED QUESTION NO. 5003
TO BE ANSWERED ON 31ST MARCH, 2023**

RESEARCH ON VIRAL DISEASES BY ICMR

5003. SHRIMATI SANGEETA AZAD:

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

- (a) the details of the research carried out by the Indian Council of Medical Research (ICMR) on viral diseases;
- (b) the percentage of success of such research activities; and
- (c) the amount spent on various activities undertaken by ICMR during the last three years and current year, year-wise?

**ANSWER
THE MINISTER OF STATE IN THE MINISTRY OF HEALTH AND FAMILY
WELFARE
(DR. BHARATI PRAVIN PAWAR)**

(a) to (c) : ICMR has been at the forefront of virus research in India with its dedicated network of Virus Research and Diagnostic Laboratories (VRDLs) and institutes like the National Institute of Virology (NIV) in Pune, the National Aids Research Institute (NARI) in Pune, and other Regional Medical Research Institutes (RMRCs) across the country. With state-of-the-art infrastructure and facilities such as BSL 3 and BSL 4 laboratories, the ICMR conducts research on a range of viruses, including HIV, influenza, dengue, chikungunya, Japanese encephalitis, and most recently, the SARS-CoV-2 virus that causes COVID-19.

ICMR has also been involved in the surveillance, detection, and containment of virus outbreaks such as Nipah virus, Zika virus, Ebola virus, canine distemper virus, Kyasanur forest disease virus, monkeypox virus, and recently SARS-CoV-2, etc. The organisation has played a key role in shaping policies related to viral diseases in India, and its research has significantly contributed to the knowledge and understanding of viral diseases. The organisation has been instrumental in providing technical support to the virus-related public health programmes in the country.

ICMR has also been at the forefront to sequence the emerging / re-emerging viral infections. Viruses like Nipah and Zika were sequenced timely by NIV and the evolution was documented. NIV's studies of whole and partial genome sequencing of Nipah virus from humans and bats respectively, revealed the source of infection and indicted a spillover of infection from bats to humans as both the sequences closely matched. During the COVID-19 outbreak, NIV trained more than 50 VRDLs in whole genome sequencing. Many of these

laboratories are now affiliated with INSACOG. The whole genome sequencing capacity established at the VRDLs under mentorship of NIV, Pune will help in strengthening the capacity of the country in timely detection of new as well as emerging / re-emerging viral infections.

ICMR has established a pan-respiratory virus surveillance for simultaneous detection of Influenza, SARS-CoV-2 and Respiratory Syncytial Virus (RSV) in patients of Influenza Like Illness (ILI) and Sever Acute Respiratory Illness (SARI). Weekly trends of circulating Influenza viruses alongwith proportional positivity of different circulating Influenza viruses (AH1N1; AH3N2; B Yamagata; B Victoria), SARS-CoV-2 and now RSV are captured through this network. The trends of prevailing respiratory viruses have also been made available by ICMR on a public dashboard which can be accessed at: https://influenza.icmr.org.in/public_dashboard/.

A few examples of achievements resulting from research activities are:

1. Successful isolation and development of a diagnostic kit for Covid-Kawach
2. Development of an Indigenous Vaccine: Covaxin
3. Outbreak investigations on Nipah, Zika, KFD, etc.

The amount spent during the last three years and current year by ICMR is tabulated as under:

	2019-2020	2020-2021	2021-2022	2022-2023 (as on 29.03.2023)
Amount Spent by ICMR	4847.09 lakhs	25288.78 lakhs	6656.23 lakhs	2210.28 lakhs
