

# National Network of BSL-3 laboratories under National One Health Mission

In recent years, the Government of India has recognized the critical need to enhance the nation’s capabilities in outbreak investigation and pandemic preparedness. To address this, a new initiative titled “Program for Strengthening R&D towards Integrated Disease Control and Pandemic Preparedness for the National One Health Mission (NOHM)” has been launched under the guidance of the Principal Scientific Advisor to the Prime Minister, within the framework of the National One Health Mission.

A key component of this program is the creation of a ‘National Network of High-Risk Pathogen Laboratories (Bsl-3/4)’ across various departments, ensuring their interconnectivity for rapid and coordinated use during outbreak responses across sectors. The primary objectives of this initiative are:

- To establish integrated disease surveillance frameworks across human, animal, and environmental sectors.
- To develop a cadre of trained professionals for R&D, outbreak response, integrated surveillance, and analytics across sectors, and to establish systems for joint outbreak response.

In support of this effort, ministries and departments such as the Department of Biotechnology, Department of Animal Husbandry & Dairying, Indian Council of Medical Research, Department of Health Research, and Indian Council of Agriculture Research have designated their laboratories to form this network. The figure below illustrates the geographical distribution and list of BSL-3 laboratories across the country.

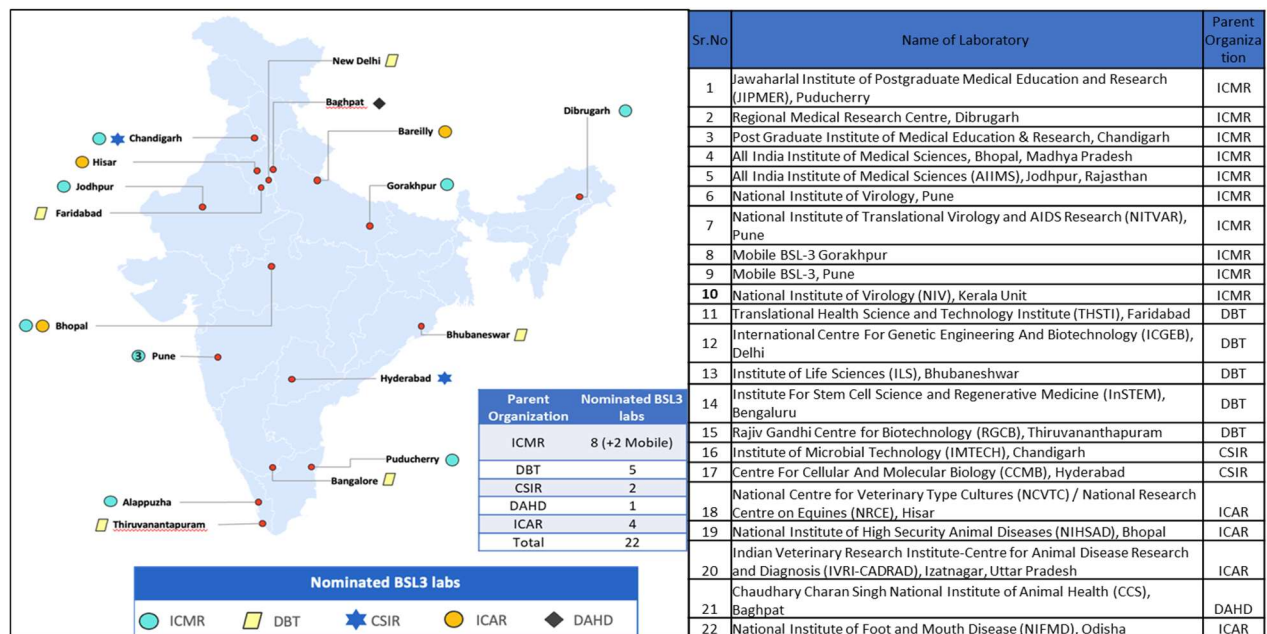


Figure 1: Geographical representation of Network of BSL-3 laboratories

The National One Health Mission also aims to enhance the nation's ability to detect, prevent, and respond to health emergencies by identifying emerging infection hotspots, conducting timely investigations, and implementing effective prevention and control measures. To bolster these efforts, a National Joint Outbreak Response Team (NJORT) has been established. One of the key responsibilities of NJORT is to refer collected samples to the nearest BSL-3 laboratory within the network.

To strengthen these laboratories several steps have been taken, including:

- Training laboratories in the diagnosis of human samples.
- Training laboratories in the diagnosis of animal samples.
- Assessment of BSL-3 laboratories within the ICMR Network to ensure their preparedness for diagnosing samples from all three verticals—human, animal, and environment.

#### Outputs

- Faster diagnostic support for outbreaks and the National Joint Outbreak Response teams
- A network of connected labs across sectors and departments for pandemic preparedness
- Peer learning and sharing of best practices of diagnostic among difference departments