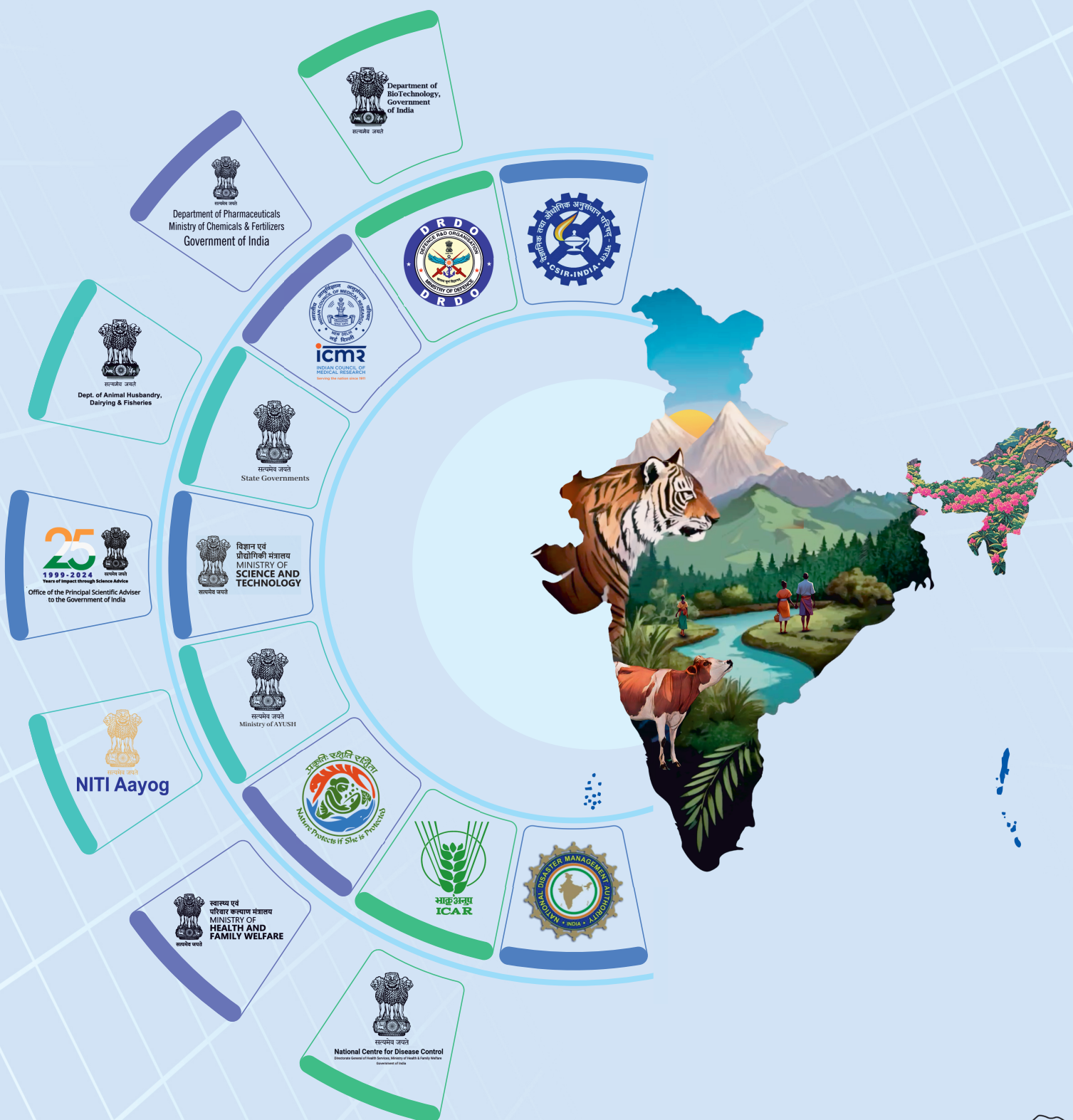State and Union Territory Engagement Workshop under the National One Health Mission

9th June 2025 | Vigyan Bhawan, New Delhi

Office of the Principal Scientific Adviser to the Government of India

25 1999-2024 Years of Impact through Science Advice

National One Health Mission

Department of BioTechnology, Government of India

Department of Pharmaceuticals Ministry of Chemicals & Fertilizers Government of India

DRDO DEFENCE R&D ORGANISATION MINISTRY OF DEFENCE

CSIR-INDIA

ICMR INDIAN COUNCIL OF MEDICAL RESEARCH

Dept. of Animal Husbandry, Dairying & Fisheries

State Governments

25 1999-2024 Office of the Principal Scientific Adviser to the Government of India

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National Centre for Disease Control Directorate General of Health Services, Ministry of Health & Family Welfare Government of India

अजय के. सूद
भारत सरकार के प्रमुख वैज्ञानिक सलाहकार
Ajay K. Sood
Principal Scientific Adviser to the Govt. of India

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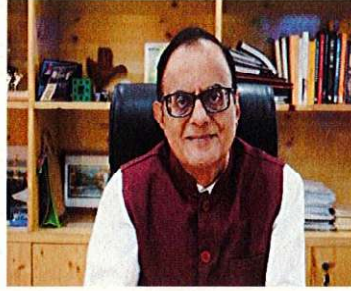Maulana Azad Road, New Delhi - 110011
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PREFACE

The National One Health Mission has been established to build an integrated, cross-sectoral system for disease control and pandemic preparedness by bringing together the human, animal, and environmental health domains. At its core, the Mission embodies the spirit of 'Sarvasya Aarogyam' - health and well-being for all. Through institutionalized collaboration across ministries, scientific institutions, and implementing agencies India is laying the groundwork for a resilient, inclusive, and forward-looking health ecosystem.

One Health is not a new concept in India; its principles have long been embedded in our traditional knowledge systems. What the Mission offers is a formalised structure co-created by over thirteen ministries and departments in a whole of government approach that enables convergence across sectors and scientific disciplines. It serves as a national platform to foster innovation, strengthen early warning systems, and institutionalise collaborative action that safeguards health while protecting biodiversity and ecosystems.

This strategic shift demands more than inter-ministerial coordination; it requires integration between science, governance, and grassroots implementation. The forthcoming National Institute for One Health in Nagpur is poised to serve as a hub for research, training, and policy support, further enabling this transformation.

States and Union Territories are vital partners in this effort. Their lived realities, institutional capacities, and contextual innovations shape how One Health is implemented on the ground. The first State and Union Territory Engagement Workshop served as a foundational step in shaping this collaboration. It created a space for constructive dialogue and learning, and brought forth insights that will inform the operationalisation of the Mission going forward.

I extend my sincere appreciation to all participants who brought their experience, perspectives, and dedication to this shared platform. It is my hope that this report serves as both a documentation of early momentum and a resource that encourages further alignment, innovation, and accountability in India's One Health journey. Most importantly, it signals India's sustained commitment to advancing One Health and contributing meaningfully to global health security and resilience.

(Ajay K. Sood)

Dated: 11ᵗʰ July, 2025

डॉ. (श्रीमती) परविन्दर मैनी
वैज्ञानिक सचिव

Dr. (Mrs) Parvinder Maini
Scientific Secretary

New Delhi dated 23rd July, 2025

FOREWORD

India's health landscape is evolving rapidly, shaped by the forces of urbanisation, climate change, global mobility, and socio-economic transition. These changes, while offering opportunities, have also intensified the risks of infectious diseases many of which originate at the intersection of human, animal, and environmental health. In this context, the National One Health Mission (NOHM) has emerged as a timely and necessary intervention, uniting the efforts of multiple sectors under a common framework of action.

While national coordination is essential, the operational success of the Mission depends deeply on the leadership and engagement of State and Union Territory governments. States are uniquely positioned to translate One Health principles into tangible outcomes through policy implementation, frontline service delivery, and community engagement. Recognising this, the first State and Union Territory Engagement Workshop, held on 9 June 2025 at Vigyan Bhavan, was designed to initiate structured interaction with state and union territory authorities those who are closest to the field realities and most critical to the Mission's success.

This workshop served multiple objectives: strengthening cross-sectoral collaboration, enabling peer learning, piloting real-time coordination through scenario-based simulations, and showcasing best practices from across the country. More than 150 participants including state nodal officers, central ministries, technical experts, and knowledge partners contributed to a rich exchange of ideas and experiences.

The insights and recommendations that emerged from the discussions offer a clear, actionable understanding of the strengths, challenges, and immediate opportunities at the state level. The workshop also underscored the need for capacity building, data integration, and institutional convergence as key enablers for effective One Health implementation.

I commend the participating states and partners for their active involvement, and for bringing forth practical wisdom grounded in field realities. This report compiles the outcomes of the workshop into a usable resource for those working to implement One Health at state and district levels.

As we move forward, this integrated vision is what 'Sarvasya Aarogyam' aspires to - a future where all systems of health work together to protect the well-being of every citizen. The workshop marked an important milestone on that journey.

(Parvinder Maini)

Executive Summary

The National One Health Mission (NOHM) seeks to institutionalize an integrated approach to health by fostering collaboration across sectors and levels of governance. Given that many determinants of human, animal, and environmental health fall within the purview of State and Union Territory administrations, their active involvement is central to the Mission's success. In recognition of this, the first State and Union Territory Engagement Workshop under NOHM was convened on 9th June 2025 at Vigyan Bhavan, New Delhi, by the Office of the Principal Scientific Adviser (PSA) to the Government of India. The workshop brought together over 150 participants, including officials from 27 States and Union Territories, representatives from central ministries and departments, and key knowledge partners. This diverse representation reflected the Mission's commitment to fostering whole-of-government and whole-of-society collaboration in operationalizing the One Health approach across India. The workshop aimed to strengthen multi-sectoral coordination, initiate structured engagement with sub-national authorities, and support the implementation of One Health at all administrative levels.

The event was inaugurated by Prof. Ajay Kumar Sood, Principal Scientific Adviser to the Government of India. The inaugural session was also graced by several key dignitaries, including Ms. Punya Salila Srivastava, Secretary, Ministry of Health and Family Welfare; Dr. Rajiv Bahl, Secretary, Department of Health Research and Director General of the Indian Council of Medical Research (ICMR); and Dr. Parvinder Maini, Scientific Secretary, Office of the Principal Scientific Adviser. In the inaugural remarks, the Mission was described as a strategic and timely intervention to address interlinked challenges across human, animal, and environmental health domains. The need for a whole-of-government approach engaging over 13 ministries and departments was underscored, with a focus on building an integrated, science-led system for early warning, detection, and response. States and Union Territories were identified as key implementers of the Mission, with their frontline systems viewed as central to its success. The session also highlighted critical initiatives under the Mission such as the formation of the National Joint Outbreak Response Team (NJORT), development of a Bio-Safety Level (BSL)-3 laboratory network, launch of multi-sectoral Research & Development projects, and the promotion of interoperable data systems linking platforms like Integrated Health Information Platform (IHIP), Bharat Pashudhan, and wildlife monitoring frameworks. The importance of engaging youth through innovation challenges and integrating One Health into formal training curricula was also emphasized.

Two states viz. Kerala and Gujarat that have been nominated to be part of the governance committees of the NOHM shared their activities and experience under NOHM. Kerala showcased decentralized governance mechanisms, a community-based surveillance system, IT-enabled platforms developed in partnership with Digital University-Kerala, and an institutional structure extending from state to local self-government levels. Gujarat's presentation focused on strengthening of laboratory and surveillance infrastructure, cross-sectoral coordination for zoonotic disease control, implementation of the AMR action plan, and successful outbreak responses, including Acute Encephalitis Syndrome and Leptospirosis. A poster session was also organized, with participation from States and UTs, multilateral partners, and knowledge partners. The session enabled sharing of innovations in surveillance, outbreak response, community engagement, and governance models.

Group picture from the first State and Union Territory engagement workshop

The workshop included a series of group discussions around five key operational themes viz. Governance and Policy, Surveillance Systems, Outbreak investigation and Response, Capacity Building and Data Sharing and Planning Session for implementation frameworks.

On **governance and policy**, gaps in intersectoral coordination, lack of institutional mandates, and funding limitations were highlighted. Recommendations were made to establish tiered governance mechanisms at state, district, and panchayat levels, adopt hub-and-spoke models, and enable convergence of departmental resources. In the session on **surveillance systems**, the fragmentation of data, inconsistent reporting standards, and limited wildlife integration were identified as core challenges. Participants called for unified data platforms, adoption of AI-enabled analytics, and greater integration of environmental and community-level surveillance. In the subgroup on **outbreak investigation and response**, gaps in joint SOPs, real-time coordination, and diagnostics were noted. A hub-and-spoke model for rapid response, use of mobile labs, and cross-sectoral expert panels were recommended. Under **capacity building and data sharing**, the need for hybrid training across departments, secure interoperable platforms, and standardization of reporting protocols was emphasized. Suggestions were made to integrate relevant modules into digital platforms such as iGOT Karmayogi and to create central repositories for technical guidance. In the session on **state-level implementation**, the importance of formalizing governance structures, and mainstreaming One Health in academic and training institutions was highlighted, along with the need for youth engagement and community ownership.

A scenario building simulation exercise, coordinated by National Security Council Secretariat (NSCS), National Centre for Disease Control (NCDC), and National Institute for One Health (NIOH), was conducted to test real-time coordination in a hypothetical outbreak scenario in

the North-East region. The simulation familiarized participants with the National Joint Outbreak Response Team (NJORT) model and the operational aspects of the Public Health Emergency Operations Centre (PHEOC). Challenges of cross-border outbreak coordination, real-time data sharing, community communication, and executive briefings were discussed. The exercise emphasized the need for decentralized preparedness and periodic joint drills.

Central agencies including Department of Animal Husbandry (DAHD) and Dairying, NCDC, MoH&FW and ICMR also made detailed presentations. DAHD highlighted India's involvement with the Pandemic Fund, Anti-Microbial Resistance (AMR) containment efforts, digital initiatives like Bharat Pashudhan, and the strengthening of diagnostic infrastructure. NCDC provided an overview of national programs under its mandate, including the National Programme on AMR Containment, climate change and health, zoonoses control, and surveillance programs like IDSP. ICMR shared progress on integrated surveillance, development of syndromic surveillance tools and environmental AMR monitoring. Ongoing infrastructure development for the National Institute for One Health, Nagpur and its mandate to serve as a research, training, and outbreak response hub was discussed in detail.

Two major activities were launched during the event; the **One Health Mission Dashboard** (https://www.psa.gov.in/oneHealthDashboard) as a one-stop repository of One Health initiatives that are being undertaken by state, central, and multilateral organizations and the **Youth Engagement Program** (Youth Engagement Program | National One Health Mission - YouTube) to facilitate national coordination, visibility, and local action.

As part of the way forward, the Principal Scientific Adviser highlighted key takeaways from the workshop and outlined priority actions for states. He emphasized the need to enhance digital infrastructure through dashboard development, align training initiatives with national platforms, standardize data systems, and foster active youth engagement in One Health efforts. The workshop reaffirmed a shared commitment to establishing One Health as a central pillar of India's health security and sustainable development agenda. The insights and recommendations from the discussions will inform future operational guidelines and provide the foundation for regional consultations under the National One Health Mission.

TABLE OF CONTENTS

Acronyms

- **A&R:** Advisory and Review
- **ADB:** Asian Development Bank
- **ADRI:** Animal Disease Research Institute
- **AES:** Acute Encephalitis Syndrome
- **AFI:** Acute Febrile Illness
- **AI:** Artificial Intelligence
- **AMR:** Antimicrobial Resistance
- **APSI:** Alliance for Pathogen Surveillance Innovations
- **ASHAs:** Accredited Social Health Activists
- **BASU:** Bihar Animal Sciences University
- **BSL:** Bio-Safety Level
- **CBS:** Community-Based Surveillance
- **C-CAMP:** Centre for Cellular and Molecular Platforms
- **CDDLs:** Central Disease Diagnostic Laboratories
- **COH-K:** Centre for One Health – Kerala
- **COVID-19:** Corona Virus Disease of 2019
- **CSF:** Classical Swine Fever
- **DAHD:** Department of Animal Husbandry and Dairying
- **DGHS:** Directorate General of Health Services
- **DHR:** Department of Health Research
- **DLZC:** District Level Zoonoses Committee
- **DMO:** District Medical Officer
- **DRDO:** Defence Research and Development Organisation
- **DSO:** District Surveillance Officer
- **DST:** Department of Science and Technology
- **ECAH:** Empowered Committee on Animal Health
- **EIS:** Epidemic Intelligence Service
- **FAO:** Food and Agriculture Organization
- **FETP-OH:** Field Epidemiology Training Program – One Health
- **FMD:** Foot and Mouth Disease
- **GBRC:** Gujarat Biotechnology Research Centre
- **GoI:** Government of India
- **HPAI:** Highly Pathogenic Avian Influenza
- **ICAR:** Indian Council of Agricultural Research
- **ICMR:** Indian Council of Medical Research
- **IDSP:** Integrated Disease Surveillance Programme
- **iGOT:** Integrated Government Online Training
- **IHIP:** Integrated Health Information Platform
- **IISc:** Indian Institute of Science
- **IIT:** Indian Institute of Technology
- **IT:** Information Technology

- **IVRI:** Indian Veterinary Research Institute
- **KFD:** Kyasanur Forest Disease
- **LH:** Livestock Health
- **LH&DCP:** Livestock Health & Disease Control Programme
- **LIMS:** Laboratory Information Management Systems
- **LSD:** Lumpy Skin Disease
- **LSG:** Local Self-Government
- **MBBS:** Bachelor of Medicine, Bachelor of Surgery
- **MoEF&CC:** Ministry of Environment, Forest and Climate Change
- **MoH&FW:** Ministry of Health and Family Welfare
- **NCDC:** National Centre for Disease Control
- **NDMA:** National Disaster Management Authority
- **NHM:** National Health Mission
- **NIAB:** National Institute of Animal Biotechnology
- **NIOH:** National Institute for One Health
- **NIV:** National Institute of Virology
- **NJORT:** National Joint Outbreak Response Team
- **NOHM:** National One Health Mission
- **NOHP-PCZ:** National One Health Programme for Prevention and Control of Zoonoses
- **NPCCHH:** National Programme on Climate Change and Human Health
- **NRCP:** National Rabies Control Programme
- **NSCS:** National Security Council Secretariat
- **NVBDCP:** National Vector Borne Disease Control Programme
- **PATH:** Program for Appropriate Technology in Health
- **PH:** Public Health
- **PHEOC:** Public Health Emergency Operations Centre
- **PHFI:** The Public Health Foundation of India
- **PM-ABHIM:** Pradhan Mantri Ayushman Bharat Health Infrastructure Mission
- **PM-JAY:** Pradhan Mantri Jan Arogya Yojana
- **PM-STIAC:** Prime Minister's Science, Technology, and Innovation Advisory Council
- **PMU:** Project Management Unit
- **PPR:** Peste des Petits Ruminants
- **PRES:** Posterior Reversible Encephalopathy Syndrome
- **PSA:** Principal Scientific Adviser
- **QMS:** Quality Management Systems
- **R&D:** Research & Development
- **RDDLs:** Regional Disease Diagnostic Laboratories
- **RRT:** Rapid Response Team
- **RUHS:** Rajasthan University of Health Sciences
- **SDDC:** State Disease Diagnostic Centre
- **SHSRC:** State Health System Resource Centre
- **SHRCs:** State Health Resource Centres
- **SLZC:** State Level Zoonoses Committee
- **SOPs:** Standard Operating Procedures
- **SPMU:** State Programme Management Unit

- **THSTI:** Translational Health Science and Technology Institute
- **TIGS:** Tata Institute for Genetics and Society
- **UNDP:** United Nations Development Programme
- **USD:** United States Dollar
- **UT:** Union Territory
- **VBRI:** Virology & Molecular Biology Lab, Veterinary Biologicals & Research Institute
- **VRDL:** Virus Research and Diagnostic Laboratory
- **WASH:** Water, Sanitation, and Hygiene
- **WHO:** World Health Organization
- **WOAH:** World Organisation for Animal Health

Background and Objectives

The National One Health Mission (NOHM), launched by the Government of India, was envisioned as a strategic initiative to address the interconnected challenges of human, animal, and environmental health. It was recognized that health threats often transcend traditional sectoral boundaries, necessitating institutionalized collaboration across disciplines and levels of governance. Under the mission, efforts have been directed towards strengthening surveillance systems, enhancing outbreak preparedness, and building resilient health systems.

State and Union Territory governments play a pivotal role in in advancing the goals of National One Health Mission. Their significant role in enacting and enforcing policies, enhancing surveillance systems to detect and respond to disease outbreaks, supporting disease control and prevention efforts, including vaccination programs, vector control initiatives and facilitating collaboration among government agencies, healthcare providers, veterinarians, researchers, and other stakeholders to coordinate One Health activities is most critical to addressing the complex health challenges of different sectors and disciplines.

Through a series of consultations held between the Office of the Principal Scientific Adviser (PSA) and nominated nodal officers from various States and Union Territories (UTs), a need was identified for facilitating cross-learning at the sub-national level. This was seen as a means to improve awareness of the mission and to support the development of frameworks for implementing the One Health approach within states and UTs.

The workshop was organized with the aim of deepening engagement with NOHM at the state and UT level. Representation from all relevant stakeholders including state and UT nodal officers, representatives from key ministries, researchers, and sectoral experts was actively facilitated. Structured dialogue, peer learning, and collaborative planning were facilitated through the course of the event.

The key objectives of the workshop were as follows:

- To raise awareness about the National One Health Mission and its associated initiatives among state representatives and knowledge partners engaged in One Health-related activities.
- To explore implementation frameworks for operationalizing the One Health approach through the sharing of best practices, identification of challenges, and facilitation of cross-state dialogue.
- To encourage reflections on the way forward, with a focus on establishing mechanisms for sustained coordination, capacity building, and data and knowledge sharing across themes such as governance, surveillance, outbreak response, and data sharing.
- To inform on state level coordination, procedures, operational plans and guidelines, and standard operating procedures through hands-on simulation exercises with state officials through a scenario-based approach. The exercise was aimed at improving coordinated responses to animal and human health emergencies.
- To showcase initiatives undertaken by academic institutions, consortia, and multilateral organizations to foster dialogue, mutual learning, and practical planning among stakeholders on One Health approach.

India's geographic and institutional diversity was acknowledged as having given rise to varied approaches to the One Health framework, each offering unique innovations, challenges, and lessons. During the workshop, case studies and governance models were shared, through which capacities were enhanced, experiences were exchanged, and a collective sense of ownership and accountability was reinforced.

The insights from the workshop are expected to provide opportunities for reflection and to generate valuable understanding for informing national policy and future programming under the mission.

Inaugural Session

The National One Health Mission (NOHM) - State and Union Territory Engagement Workshop was inaugurated with addresses from senior leadership, including the Principal Scientific Adviser (PSA) to the Government of India, the Secretary of the Ministry of Health and Family Welfare (MoH&FW), and the Secretary of the Department of Health Research and Director General of the Indian Council of Medical Research (ICMR) and Dr Parvinder Maini, Scientific Secretary, O/o PSA.

Prof. Ajay Kumar Sood, PSA to the Government of India, extended a formal welcome to dignitaries and participants. In his remarks, the NOHM was highlighted as a timely and strategic initiative to address the interconnected challenges of human, animal, and environmental health. A whole-of-government approach involving over 13 ministries and departments was underscored, with an emphasis on building an integrated, science-led system for anticipation, detection, and response to health threats. The critical role of States and Union Territories in operationalizing the Mission was emphasized, particularly in ensuring integrated early warning systems, resilient infrastructure, and coordinated outbreak response.

Key initiatives such as the formation of the National Joint Outbreak Response Team, the establishment of BSL-3 laboratory networks, surveillance projects, and multi-sectoral R&D support were outlined. The need for interoperable data systems (e.g., Integrated Health Information Platform (IHIP), Bharat Pashudhan) and community programs was also highlighted.

Ms. Punya Salila Srivastava, Secretary, MoH&FW, commended the PSA's leadership and acknowledged India's pivotal role in advancing the global One Health agenda. The One Health

approach was recognized as essential for addressing zoonoses, Anti-Microbial Resistance (AMR), food safety, and environmental health. States and UTs were positioned as key implementers of the Mission, with effective systems dependent on engagement from research institutions to communities. MoH&FW's contributions through National Centre for Disease Control programs such as Anti-Microbial Resistance containment, zoonoses control, and capacity building under Field Epidemiology Training Program – One Health (FETP-OH) and Epidemic Intelligence Service (EIS) were highlighted. The importance of integrating surveillance under Integrated Disease Surveillance Programme (IDSP) and IHIP, along with establishing cross-sectoral coordination platforms and investing in rapid response capabilities, was emphasized. States were encouraged

to actively contribute to co-developing effective, inclusive, and sustainable One Health governance.

Dr. Rajiv Bahl, Secretary, Department of Health Research and DG, ICMR, underlined the relevance of the workshop in strengthening state and UT roles in operationalizing the Mission. The establishment of the National Institute for One Health (NIOH) in Nagpur was presented as a central pillar of India's One Health strategy. NIOH is envisioned as a hub for research, training, and integrated surveillance, with ongoing infrastructure development and cross-disciplinary collaboration. Key efforts such as syndromic surveillance, multi-sectoral simulation exercises (e.g., *Vishanu Yuddh Abhyaas*), and the development of a federated data model were discussed. The establishment of a national network of BSL laboratories and the National Joint Outbreak Response Team were identified as instrumental in ensuring coordinated, rapid response across sectors. Dr. Bahl concluded by emphasizing that the success of the Mission would rely on strong coordination between central and state agencies to secure a resilient and health-secure future for India.

A detailed overview of the National One Health Mission (NOHM) was presented by Dr Sindura Ganapathi, Visiting PSA Fellow, O/o PSA, outlining its governance architecture, operational pillars, and expected outcomes. The Mission has been positioned as a whole-of-government initiative aimed at addressing the interlinked challenges of human, animal, and environmental health through an integrated framework.

The National One Health Mission follows a two-tier governance structure, with policy leadership by the Union Health Minister and scientific direction by the Principal Scientific Adviser. Supported by advisory committees, the Mission focuses on strengthening surveillance, outbreak response, laboratory capacity, multi-sectoral R&D, and data systems.

The key focus areas of the Mission were highlighted as, Integrated disease surveillance across sectors; Joint outbreak response systems; Pandemic preparedness and disaster resilience and Enabling activities across research and development (R&D), data integration, regulatory processes, and governance mechanisms.

The detailed presentation is placed at **Annexure I.**

State Presentations

State-Level One Health Activities in Kerala

Ms. Madhavikutty IAS, Deputy Secretary, Health & Family Welfare Department, and Dr. Ajan M. J., Assistant Director (Medical) and State Nodal Officer for One Health, Directorate of Health Services, Government of Kerala, jointly presented the State's approach to operationalizing the One Health Programme, including its response to recent health emergencies and preparedness for future threats. The key highlights of the presentation are as follows:

1. Overview of the One Health Programme Kerala - The One Health Programme in Kerala was conceptualized to enhance the State's capacity to detect and respond effectively to zoonotic disease outbreaks of public health significance.

2. Program Launch and Implementation - The programme was officially launched by the Hon'ble Chief Minister on 17 May 2022. In its first phase, implementation was initiated in four districts within the Pamba basin: Pathanamthitta, Alappuzha, Kottayam, and Idukki.

3. Key Components and IT Integration

   - Infrastructure such as a One Health Platform and strengthened Integrated Public Health Laboratories was under development.

   - A Community-Based Surveillance (CBS) system had been conceptualized, supported by an IT-enabled reporting mechanism (currently interim reporting was being conducted via phone).

   - Digital University-Kerala was identified as the IT partner for building Monitoring & Evaluation systems, including a web portal for mentor/volunteer registration and the official website.

   - Future enhancements were proposed, including dashboards, analytics, predictive modelling, and integration of generative AI capabilities.

4. Governance and Coordination Mechanisms

- Multi-tiered governance structures have been established at the State, District, and Local Self-Government (LSG) levels to review progress and formulate action points.

- The State One Health Committee is chaired by the Hon'ble Minister for Health, Women and Child Development.

- District-level Committees are chaired by the respective District Collectors.

- At the LSG level, the committees were chaired by the Presidents or Chairpersons of the respective Panchayats, Municipalities, or Corporations.

- Additional mechanisms included a Core Committee for inter-departmental coordination and monitoring, and a Technical Committee for providing technical guidance and vetting protocols.

5. Implementation Structure

- The Centre for One Health – Kerala (COH-K) has been established as the State Programme Management Unit (SPMU).

- District Programme Support Units have been operationalized, with the District Medical Officer (DMO) designated as the nodal authority.

- The District Surveillance Officer (DSO) supervised programme implementation, coordinated by the District Nodal Officer.

6. Joint Outbreak Investigations and Capacity Building

- Standard Operating Procedures (SOPs) for joint outbreak investigations were developed through multi-departmental workshops.

- Comprehensive training modules were being developed for staff from relevant departments.

- The programme emphasized a proactive One Health strategy that included community-based surveillance, inter-departmental coordination, evidence-based joint outbreak response, and capacity building.

7. Antimicrobial Resistance (AMR) Activities related to AMR were being jointly undertaken by the Kerala Health Department and the Drugs Control Department.

The detailed presentation is placed at **Annexure II**

State level One Health activities in Gujarat

Dr. A.M. Kadri, Executive Director of SHSRC-Gujarat and Member Secretary of the State Convergence Committee on AMR, presented Gujarat's initiatives under the One Health framework, with a particular focus on inter-sectoral collaboration and disease management, especially in relation to zoonotic diseases and AMR. The following points were highlighted:

1. A multi-pronged approach had been adopted by Gujarat to promote interdepartmental coordination, disease surveillance, and capacity building. State- and district-level committees had been constituted to provide policy direction, coordinate outbreak investigations, and oversee infrastructure enhancement, including the upgradation of medical college laboratories.

2. Surveillance for zoonotic viruses was being strengthened through the establishment of laboratory networks, cross-sectoral data sharing mechanisms, and dashboards. Diverse sample types were being monitored across districts as part of a comprehensive surveillance effort.

3. The Gujarat AMR State Action Plan included initiatives such as equipping tertiary care hospitals, developing surveillance systems, training healthcare professionals, and organizing workforce development programs for public health emergency management and One Health practices.

4. Gujarat's coordinated response to outbreaks such as Acute Encephalitis Syndrome (AES) involved rapid response teams, genome sequencing, surveillance activities, and vector control measures. For diseases like Leptospirosis, integrated interdepartmental interventions—such as chemoprophylaxis, sero-surveillance, and data sharing—had led to a measurable decline in both cases and fatalities.


The detailed presentation has been placed at **Annexure III**.

Launch of Youth Engagement Program and Dashboard on One Health Initiatives

During the inaugural session, the Youth Engagement Program for One Health mission was launched. This program is an initiative to actively engage with the youth of the nation through existing national platforms and state machinery to leverage their involvement in the mission.
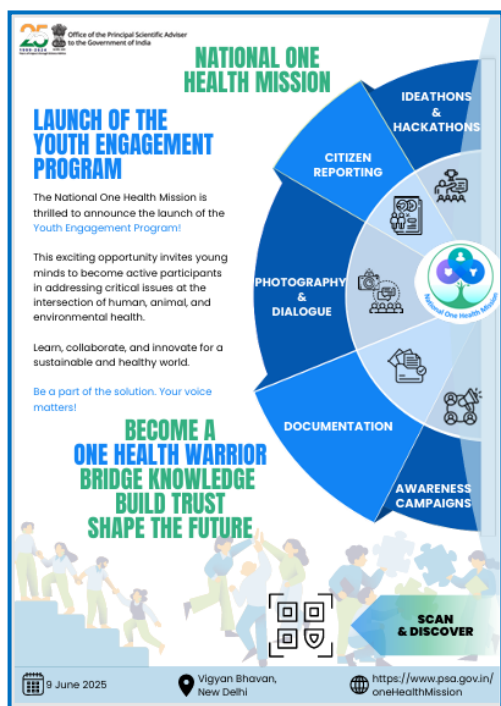
Flyer of the Youth engagement program (L) and Picture from its launch (R)

Additionally, a dashboard on One Health initiatives by states, central ministry/departments and multilaterals was launched and is accessible through the Office of the PSA website (https://www.psa.gov.in/oneHealthDashboard). This dashboard is under development and currently hosts the various initiatives of the states along with other respective agencies.
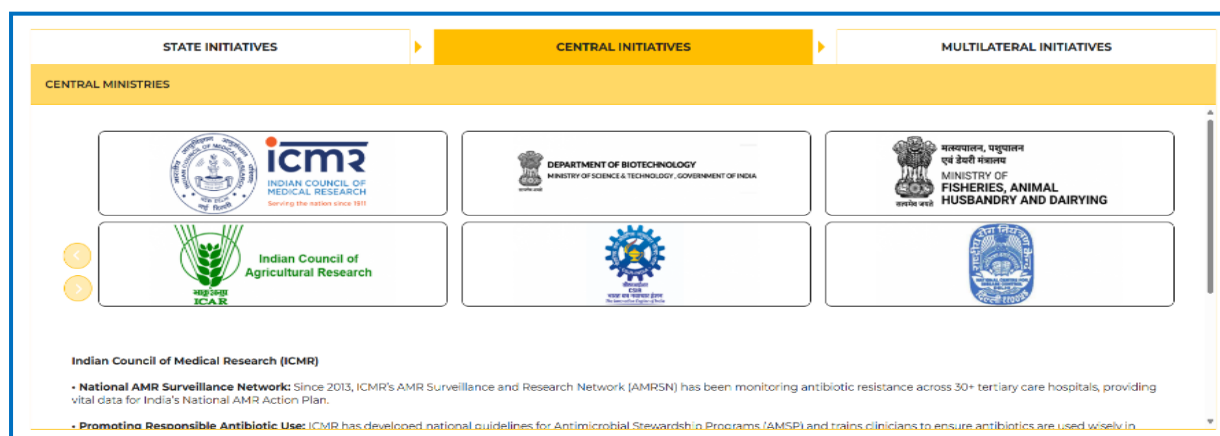
Snapshots of the dashboard wireframe

Poster Session

During the workshop, a vibrant poster session was organized, featuring participation from States and Union Territories, knowledge partners, multilateral organizations, and other agencies. Each participant showcased their One Health initiatives spanning governance models, surveillance innovations, outbreak response strategies, and community engagements through posters on display. The session enabled interactive discussions among representatives from States/UTs, central ministries, and partner agencies, fostering peer learning and knowledge exchange on practical One Health solutions. The posters are placed at **Annexure IV.**

Pictures from the poster session

Session I: Group Activity

Theme: Framework for One Health Operationalization

Sub-session A- Governance & Policy

Chair: Dr Renu Swarup, Chair, Advisory and Review (A&R) committee on Research and Development

Moderator: Dr Pragya Yadav, Director-in-charge, NIOH

Rapporteur: Dr Nidhi Thakur, Team Lead, One health mission PMU, O/o PSA

Background and Context: The effective implementation of the One Health approach necessitates the establishment of a robust governance and policy framework at the state level. This framework would serve as the primary mechanism for enforcing key policies, coordinating interdepartmental efforts, executing programs at the ground level, and facilitating engagement with national-level governance systems.

Key Objectives:

The deliberations in this subgroup focused on the following key objectives:

- To initiate a dialogue on the establishment of multi-stakeholder governance structures at the state level, including collaborative committees at both state and district levels, for addressing issues related to One Health.

- To identify gaps that hinder the operationalization of the One Health approach at the state level.

Highlights of the discussion:

- Active participation was observed from several state representatives during the subgroup discussions. The following key points were noted:

- In majority of states, a dedicated governance structure involving representatives from multiple sectors for addressing One Health concerns has not yet been established.

- A few states indicated the existence of such structures; however, inter-sectoral coordination was cited as a major gap.

- Collaboration tends to be limited to established programs (e.g., Rabies), with mechanisms of coordination between departments being ad hoc and issue-specific, thereby impeding consistent inter-sectoral engagement.

- States interested in implementing the One Health approach frequently encounter challenges in securing dedicated funding for related initiatives.

- It was emphasized that policy guidelines should be developed to facilitate the formation of One Health governance mechanisms and action plans.

- It was noted that several issues, such as infectious diseases, transcend state boundaries and present as regional challenges. Dedicated mechanisms to address such cross-border concerns would enhance the effectiveness of the One Health approach.

- It was suggested that existing human resources and infrastructure across departments should be optimized to improve the efficiency of One Health implementation.

Major Recommendations:

- It was noted that approximately only 10% of states have formulated dedicated One Health action plans or established governing committees. These collaborative structures have been found to significantly ease the process of addressing One Health challenges. All State Governments should be encouraged to formulate their action plans and set up Governing mechanisms

- One Health should be recognized as a priority agenda within the state governance framework to ensure timely implementation. A tiered governance structure—spanning state, district, and panchayat levels— was recommended.

- At the state level, the committee structure may be as follows:

- **Apex Steering Committee** – To be chaired by the Chief Secretary, with participation from Secretaries of relevant departments such as Animal Husbandry, Environment, Agriculture, Urban Affairs, Panchayati Raj, and others. The committee is envisioned to guide and oversee the integration of the One Health approach into state-level planning and implementation frameworks.

- **Empowered Intersectoral Committee** – Comprising Secretaries of all concerned departments, this committee should be anchored within a department identified by the state. It would be responsible for operationalization of administrative and financial decision-making concerning One Health activities, including decisions on resource sharing and budget allocations.

- Department level Executive Management Committee to be responsible for effective implementation of the One Health Action plan at ground level

- A dedicated budget line for One Health activities should be established in all states. Additionally, existing departmental funds may be leveraged and converged to support One Health initiatives.

- Governance of the One Health approach should follow a hub-and-spoke model, wherein state-level governance committees maintain regular communication with the national-level committees under the mission.

- Regional coordination committees should be constituted to address issues affecting multiple states or regions.

- Mechanisms for regular and structured information sharing between departments should be developed and institutionalized.
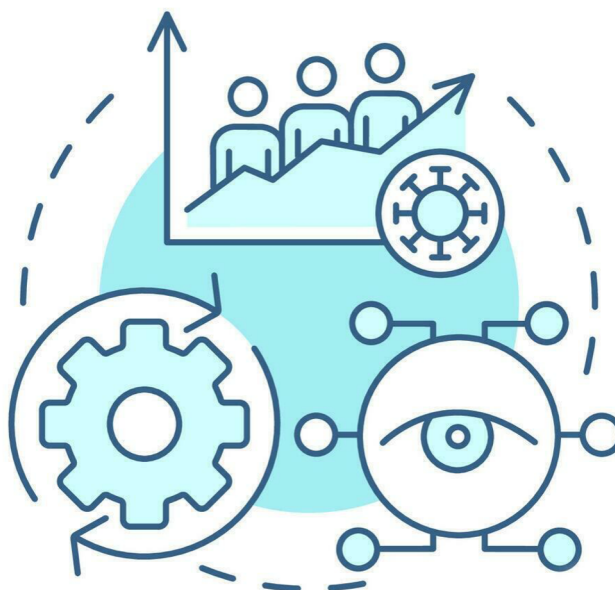
Sub-Session B- Surveillance Systems

Chair: Dr. N.K. Arora, Chair A&R Committee on Technology enhanced surveillance;

Moderator: Dr. Saurabh Goel (PH) Joint Director, Integrated Disease Surveillance Programme (IDSP), National Centre for Disease Control (NCDC).

Rapporteur: Dr Darshan N, Project Manager, One Health Mission PMU, O/o PSA

Background and Context:

One Health surveillance systems represent a shift from siloed monitoring to an integrated approach that acknowledges the interconnectedness of human, animal, and environmental health. By combining data and expertise across sectors, these systems enable better understanding and management of zoonotic diseases, antimicrobial resistance, and other environmental health risks. Enhanced collaboration and shared intelligence are key to enabling timely prevention, detection, and response to emerging health threats.

Key Objectives:

The deliberations in this subgroup focused on the following key objectives:

- To identify strengths and gaps in the operationalization of integrated surveillance frameworks at the state level, particularly concerning coordination, resource allocation, data collection, and reporting mechanisms.

- To explore technological advancements and models for designing surveillance programs, including those targeting the human-animal-environment interfaces, such as environmental surveillance.

- To articulate the need for a unified, real-time data-sharing platform that enables dynamic decision-making based on surveillance-derived insights.

Highlights of the Discussion:

The subgroup engaged in discussions aimed at enhancing surveillance systems across all sectors. While interdepartmental harmonization efforts were noted, several critical challenges were identified in data management, inter-agency collaboration, and community-level engagement. Addressing these challenges was deemed essential for realizing the full potential of the One Health approach in the prevention and management of health threats. The key challenges identified included:

- Surveillance data generated by different departments is often maintained in varied formats and lacks central-level synchronization, resulting in delayed and infrequent data sharing.

- Concerns were raised regarding the quality of data, especially incomplete line listing, inadequate location details, missing information on movement and the need to differentiate between smart and dumb data. These limitations hinder a comprehensive understanding of disease epidemiology.

- The absence of routine, timely and direct data sharing from multiple departments was identified as a significant barrier.

- States and programs often operate with differing priorities, obstructing the development of a cohesive One Health surveillance framework.

- Intersectoral collaboration was found to be largely confined to established programs such as rabies control, limiting broader data exchange and integration across sectors.

- The absence of policy directives addressing wildlife that test positive for infectious diseases poses difficulties for forest departments, which are primarily conservation focused.

- Community surveillance initiatives, particularly those that are not incentive-based, frequently lack active and sustained engagement due to limited support mechanisms. Similarly, community surveillance tools are not widely accessible.

- Geography-wise comprehensive line listing of wet-lands, bird sanctuaries, animal sanctuaries, livestock areas, poultry areas are required and generally not available with all sectors.

- Current animal husbandry practices are largely reliant on syndromic approaches, revealing gaps in laboratory diagnostic capacity and point-of-care testing.

Major Recommendations:

- It was recommended that prioritization of surveillance objectives and harmonization of data formats across sectors be undertaken at both central and state levels to ensure a unified One Health response.

- The need for standardized training programs on sample collection, packaging, and dispatch to laboratories was emphasized. Additionally, environmental surveillance particularly wastewater monitoring should be expanded to include animal and environmental health sectors. Air and air borne infection surveillance need further attention and strengthening. The importance of conducting wildlife death audits and facilitating interdepartmental data sharing was also underscored.

- The potential for leveraging existing community-based extension networks-such as ASHAs, Pashu Sakhis, Jal Nal Mitras, and Anganwadi workers for surveillance activities was highlighted. To support this, the formulation of a common list of notifiable diseases for both human and animal health sectors was proposed.

- Given the reliance on syndromic management within animal husbandry, it was recommended that laboratory diagnostic capabilities and point-of-care testing facilities be significantly enhanced to improve animal health services.

- Media (print, electronic and social) scanning should become an integral part of the ONE Health surveillance so that there is no attempt to suppress outbreaks.

- The application of data analytics and artificial intelligence was identified as a key enabler for improving surveillance precision and operational efficiency. The strategic use of data was seen as critical for securing administrative buy-in and fostering collaboration among diverse stakeholders in the One Health ecosystem.

- It was recommended that One Health Surveillance Research and Innovation agenda to be developed for constant improvements and induction of new technologies.
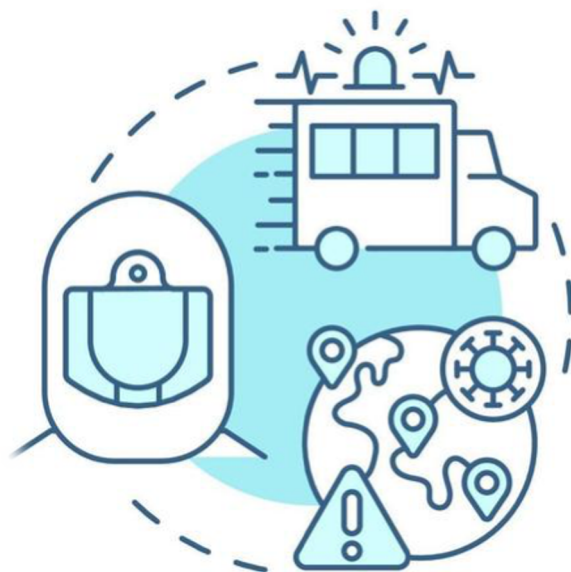
Sub-Session C- Outbreak Investigation & Response

Chair: Lt. Gen (Retd.) Madhuri Kanitkar, Chair, A&R Committee on BSL Lab network

Moderator: Dr Anoop Velayudhan, Scientist E, Indian Council of Medical Research

Rapporteur: Ms. Arundhati Mohanty, Project Manager, One Health Mission PMU, O/o PSA

Background and Context:

Outbreaks of zoonotic diseases whether emerging, re-emerging, or endemic underscore the interconnectedness of human, animal, and environmental health. India has faced multiple such challenges in recent years: from the Nipah virus and avian influenza to anthrax and scrub typhus, these events have highlighted the critical need for coordinated, cross-sectoral joint outbreak investigation and response mechanisms rooted in the One Health approach. This sub-session was designed to provide a practical and policy-relevant discussion to identify key challenges and propose actionable strategies to strengthen outbreak investigation and response mechanisms at the national and sub-national levels.

Key Objectives:

The deliberations in this subgroup focused on the following key objectives:

- A list of challenges and priority areas for strengthening state-level joint outbreak investigation and response.

- To surface practical insights from state's experiences, identify bottlenecks in intersectoral coordination, and explore scalable models for outbreak response under the National One Health framework.

Highlights of the Discussion:

The discussion centered on how each state at present mobilized teams for an outbreak response, which sector is appointed as the nodal point and how mobilizations and coordination work in a bottom-up approach. Accordingly, the group put forth the challenges and way forward to an outbreak investigation and response imbibing the one health principles that would be most practical and beneficial for states to follow. The main challenges identified included:

- There is an absence of a common operational platform for coordinated multi-agency and multi-sectoral response, leading to duplication of efforts and delayed interventions. Existing governance structures are either underdefined or ineffective in enabling rapid and informed decision-making during crises.

- Outbreak teams across sectors currently operate without harmonized joint protocols or standard operating procedures (SOPs), which undermines consistency in response actions and hampers cross-sectoral collaboration.

- There is poor institutional linkage between departments, exacerbated by the lack of a centralized coordination point at the state level. Surveillance systems are also not

designed for effective coordination across district and state borders, which is critical for containment of fast-spreading diseases.

- Remote and rural areas continue to face significant constraints in accessing diagnostics and laboratory services, resulting in delayed confirmation of outbreaks and missed opportunities for early intervention.

- Fragmented data systems and a lack of formal agreements between institutions impede real-time data sharing, limiting both preparedness and timely response.

- Outbreak preparedness remains largely top-down, with limited mechanisms for involving local communities, youth networks, and civil society in surveillance, awareness, and mitigation efforts.

- During outbreaks, uncontrolled or sensational media coverage has contributed to public panic, misinformation, and erosion of trust in public health interventions.

- District and block-level teams are under-involved in planning and decision-making processes, and lack access to sustained capacity-building programs, simulations, and drills.

- There is currently no formal, accessible panel of interdisciplinary experts to advise and guide rapid response teams, particularly in high-stakes scenarios requiring real-time expertise in epidemiology, diagnostics, and communication.

- Surveillance and response systems are limited by administrative boundaries, with no standard transboundary protocols in place despite growing risks at the human-animal-environment interface.

Major Recommendations:

To address the challenges outlined and move toward a more resilient and integrated outbreak response framework, the group suggested considering the following measures:

- States may explore the formation of dedicated nodal units to support outbreak coordination, policy facilitation, and inter-departmental liaison functions which can enable an effective Rapid Response Team (RRT).

- An interoperable, cross-sectoral digital tool such as a dashboard could be helpful in mapping and monitoring outbreak hotspots, supporting investigation, case tracking, and joint planning. Early reporting needs to be encouraged without fear of a blame game

- Clarifying roles and responsibilities through streamlined governance structures and formal inter-agency agreements at sub-national levels could improve operational efficiency. A clear oversight mechanism with accountability needs to be in place.

- Locally adaptable, jointly developed standard operating procedures might ensure consistency and clarity across various response teams.

- Establishing decentralized coordination mechanisms, such as joint task forces and multi-sectoral review meetings, may enhance real-time information exchange and sustained alignment among departments.

- Three-tiered RRTs including expertise from human health, animal health, forestry, and WASH sectors could be considered to enable joint field deployment and quicker response.

- Expanding access through mobile labs, point-of-care tools, and infrastructure upgrades particularly in Tier 2 and Tier 3 districts may help close current diagnostic gaps.

- Designing a comprehensive risk communication and media strategy, with designated spokespersons and pre-approved messaging protocols, could prove useful in managing public perception and misinformation.

- Specialized teams focused on science-based, real-time communication may play a crucial role in countering rumours during health emergencies.

- Engagement through awareness drives, peer-based networks, and participatory surveillance leveraging platforms like Unnat Bharat Abhiyan can help foster community-led response and resilience.

- A state and national roster of experts in clinical care, zoonoses, diagnostics, and communication could serve as a valuable support mechanism for informed and rapid outbreak management.

- The network of labs created at the centre may each develop a local network in a hub and spoke model right down to the grass roots with all in the chain clearly informed on which local laboratory to screen initially and thereafter how to escalate up the chain. A syndromic approach in human has been designed and can be shared based on local relevance. The animal approach is less well defined and wild animal and regular surveillance not a regular feature except for high transmission regions of certain seasonal outbreaks.

- The committee suggested that a political impetus will help implement the mission faster
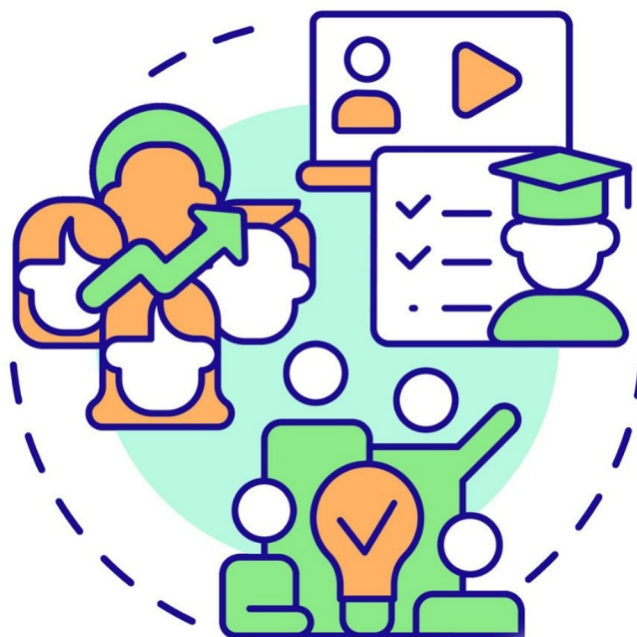
Sub-Session D- Capacity Building & Data Sharing

Chair: Dr Vijay Chandru, Chair, A&R Committee on Integration of databases and data sharing.

Moderator: Dr Adhiraj Mishra, Assistant Commissioner (LH), Department of Animal Husbandry and Dairying

Rapporteur: Ms. Richa Chaturvedi, Project Manager, One Health Mission PMU, O/o PSA

Background and Context: The effective implementation of the National One Health Mission is contingent upon robust capacity building across all relevant sectors and the establishment of seamless data-sharing mechanisms. At the state level, this necessitates that personnel across human health, animal health, and environmental departments are equipped with the requisite skills, knowledge, and tools to collaborate effectively. Concurrently, the efficient flow and integration of data are essential for enabling comprehensive surveillance, timely outbreak investigations, and evidence-based policy formulation, thereby ensuring proactive responses to emerging health threats.

Key Objectives: The discussions in this subgroup were guided by the following key objectives:

- To collaboratively identify innovative strategies for strengthening cross-sectoral capacity-building initiatives, including leadership development and institutional frameworks.

- To deliberate on improving the processes of data collection, integration, analysis, and sharing across the human, animal, and environmental health sectors.

- To develop actionable recommendations for embedding capacity building and data-sharing components into the state's One Health strategic plan.

Highlights of the discussion: Participation was noted from several state representatives and multilateral stakeholders. The following key points were discussed:

- Although various departmental training programs are being conducted at the state level, there remains a lack of structured, cross-sectoral training initiatives specifically aligned with a unified One Health approach.

- Formal, common platforms for inter-sectoral data sharing are largely absent. At present, data exchange primarily occurs through informal channels such as WhatsApp or email, limiting efficiency and accessibility.

- Challenges persist in maintaining the consistency, periodicity, and quality of collected data, thereby reducing its utility for comprehensive analysis.

- Proactive data collection prior to disease outbreaks or public health incidents remains limited, which weakens early warning systems and preventative capabilities.

- Concerns were raised regarding data security and privacy in integrated platforms, highlighting the need for robust safeguards and measures to build trust among stakeholders.

- The absence of an integrated laboratory network restricts seamless communication and collaboration among departmental personnel during diagnostic and surveillance efforts.

Major Recommendations:

To enhance capacity building and data-sharing practices under the National One Health Mission, the following recommendations were made:

- A thorough assessment should be conducted to identify specific knowledge, skill, and resource gaps across human, animal, and environmental health sectors.

- Multi-sectoral training modules and workshops should be developed and implemented, targeting personnel from all relevant departments, with a focus on both inter- and intra-departmental training.

- Virtual training platforms should be created to ensure continuous access to learning and upskilling on One Health topics for a wider audience.

- Uniform data collection methods and reporting protocols should be introduced for both routine surveillance and outbreak scenarios (pre- and post-event) to enable data compatibility and integration.

- A secure and interoperable digital platform should be developed for the integration and sharing of human, animal, and environmental health data. The platform should ensure data security, define access protocols clearly, and incorporate alert and notification functionalities.

- Geospatial mapping capabilities should be integrated to support real-time visualization and analysis of sporadic disease cases, facilitating the identification of clusters and cross-sectoral linkages.

- Non-traditional data sources, including social media, should be leveraged for early signal detection and improved situational awareness related to One Health events.

- A unified platform should be established to host digital advisories and reporting personnel from all departments for streamlined coordination.

- A forward-looking assessment should be undertaken to identify technology and research requirements, supporting the translation of R&D into practical One Health solutions.

Sub-Session E- Planning Session for Implementation Framework

Chair: Dr Parvinder Maini, Scientific Secretary O/o PSA;

Moderator: Dr Sangeeta Agarwal, Scientist-F, O/o PSA and Dr. Sindura Ganapathi, Visiting PSA Fellow, O/o PSA

Background and Context: At the national level, the governance framework for the National One Health Mission (NOHM) has been established, with several activities already initiated. These include the development of a network of BSL-3 laboratories for cross-sectoral outbreak sample management, surveillance projects at the human-animal-environment interface, the formation of a National Joint Outbreak Response Team, and funding for various R&D initiatives under the mission.

However, the success of the mission depends largely on its effective operationalization at the state and district levels. This sub-session was convened to encourage states to adopt the One Health approach in implementing ongoing programs and to design new, collaborative, multi-sectoral initiatives aligned with the mission's objectives.

Objective of the Session:

- To deliberate on the development of an effective implementation framework for NOHM, based on insights from states that have proactively adopted the One Health approach.

- To discuss state-level efforts in areas such as governance structures, data sharing, integrated surveillance systems, and capacity building.

- To understand states' approaches to operationalizing One Health and the challenges faced in implementation.

Highlights of the Discussion:

- The importance of high-level political commitment for One Health implementation was acknowledged, as the approach requires coordination among multiple departments.

- States such as Tamil Nadu were noted for integrating programs like the Wetland Mission and Green Climate Mission under the One Health umbrella. Alignment with environmental and climate resilience frameworks was seen as a means to strengthen One Health outcomes.

- Kerala's model involving local self-governments and panchayats in One Health governance was commended, particularly its emphasis on decentralized health planning and community ownership.

- Challenges in training frontline and high-risk occupational workers were discussed. Recommendations included inter-departmental coordination through State Health Resource Centres (SHRCs) and community-based training via Village Health Councils.

- Strengthening of inter-disciplinary research and laboratory infrastructure at the state level was highlighted as a priority.

- Barriers such as insufficient infrastructure, funding, and trained personnel were identified as hindrances for effective One Health implementation.

- The need for standard operating procedures (SOPs) and legal frameworks to support implementation at the state level was emphasized.

- It was proposed that One Health concepts be introduced in formal curricula to enhance awareness and knowledge dissemination.

- Deployment of live dashboards integrating data across sectors was suggested.

- Technology-driven surveillance systems and a shift from reactive to proactive surveillance were recommended.

Recommendations for One Health Oriented Action

Governance & Leadership:

- Suggestive Standard Operating Procedures may be issued by the Centre to guide states in adopting One Health strategies.

- Dedicated governance structures could be established by states to oversee One Health implementation.

- High-level Management Committees may be constituted in each state to prioritize and guide implementation efforts.

Capacity Building & Trainings:

- A dual approach may be adopted:

    i. Enhancing inter-departmental coordination via SHRCs and National Resource Organizations for technical training.

    ii. Strengthening community-based training through Village Health Councils.

- Relevant training modules may be integrated into platforms like iGOT, Karmayogi and formal academic curricula (e.g., MBBS, veterinary sciences).

- Hackathons and participatory innovation events may be organized to engage youth in One Health.

- Karmayogi-linked modules on surveillance, outbreak response, and data analytics may support continuous capacity development.

Surveillance Systems & Data Sharing:

- Integrated reporting mechanisms should be developed to improve data collection efficiency.

- Convergence of departmental data into unified dashboards may be promoted.

- A state-level dashboard, interconnected with a national One Health Unified Portal, may be explored.

- Nodal officers may be appointed to standardize data flow templates and promote inter-state collaboration.

- Data formats and protocols should be standardized across states to ensure interoperability.

- Geo-mapping and forecasting tools may be deployed to support predictive surveillance of zoonotic threats.

Community Engagement & Workforce Development:

- Specialized training programs for high-risk occupations such as poultry workers and butchers may be introduced.

- Engagement of grassroots cadres and youth via initiatives like Unnat Bharat Abhiyan may enhance local outreach.

- National Resource Organizations may support field-level workforce development.

Legal & Policy Frameworks:

- Incentive-based models for One Health implementation may be developed over the long term.

- Exploration of a structured Public Health Act may be considered to provide regulatory support for One Health initiatives.

Inter-State Collaboration:

- A hub-and-spoke model for sharing innovations and learnings among states may be established.

- Platforms for inter-state exchange and knowledge sharing could facilitate the scaling of successful practices and solutions.

Presentations by Central Government Agencies

Insights on the Pandemic Fund – Department of Animal Husbandry and Dairying (DAHD)

An overview of the Pandemic Fund and related initiatives was presented by Dr. Aruna Sharma, Deputy Commissioner (Livestock Health), Department of Animal Husbandry and Dairying (DAHD). The leadership of DAHD in strengthening animal health security for pandemic preparedness and response in India was outlined.

Key points presented included:

- **Pandemic Fund Grant**: A grant of USD 25 million was secured by DAHD from The Pandemic Fund (multilateral financing mechanism with implementing entities in India being ADB, FAO and World Bank) which had received 350 Expressions of Interest and 180 full proposals in its inaugural call. Of these, 19 grants were approved across 37 countries. The Asian Development Bank (ADB) and The World Bank were identified as implementing entities, in collaboration with the FAO.

- **Project Launch**: The project was officially launched on October 25, 2024.

- **Major interventions**:

  o *Laboratory Systems*: An Animal Health Laboratory Network is being established. Networks such as INTEZ (Transboundary Animal Diseases/Emerging Infectious Diseases/Zoonoses), INGeS (Genomic Surveillance), and the Indian Network for Fisheries and Animal's Antimicrobial Resistance networks are being developed. Laboratories (CDDLs, RDDLs, veterinary colleges) are being upgraded with Laboratory Information Management Systems (LIMS), Laboratory Quality Management Systems (QMS), and relevant infrastructure.

  o *Surveillance and Early Warning*: Surveillance systems are being strengthened through identification of priority diseases, simulation exercises, hotspot mapping, reviewing Standard Operating Protocols (SOPs) and development of AMR sampling and IT-based alert mechanisms.

  o *Capacity Building*: Competency-based training is being provided under a One Health framework, including targeted training for veterinarians, para-veterinarians, wildlife personnel, and food processing workers. Rapid response teams are also being institutionalized.

- o *Data Systems and Risk Communication*: IT systems are being strengthened to enable data interoperability. Risk communication materials are being developed, and data modeling is being leveraged for early warning.

- o *Institutional Coordination*: Livestock-specific disaster preparedness frameworks are being developed. Coordination for transboundary diseases and AMR is being fostered through bilateral and regional engagements.

- o *Animal Health Status*: Annual economic losses of ₹55,000 crores from vaccine-preventable diseases were highlighted. Progress under the Livestock Health & Disease Control Programme (LH&DCP) was noted, with millions of vaccinations conducted for FMD, PPR, CSF, Brucellosis, and LSD as of May 2025.

- o *Digital Initiatives and Regulatory Measures*: Over 9.34 crore livestock owners were registered under the National Digital Livestock Mission "*Bharat Pashudhan*," with more than 34 crore transactions recorded. The Empowered Committee on Animal Health (ECAH) has been established to regulate approvals for drugs and inoculation systems.

- o *International Standards and Export Readiness:* India's adherence to international biosecurity standards and the acceptance by WOAH of India's self-declaration of freedom from Highly pathogenic avian influenza (HPAI) in 43 poultry compartments were highlighted.

The detailed presentation is placed at **Annexure V**.

One Health in India – National Centre for Disease Control (NCDC)

A comprehensive presentation on India's One Health strategy was delivered by Dr. Ranjan Das, Director, NCDC. The integrated approach to addressing human, animal, and environmental health challenges was emphasized, along with the global relevance of the One Health paradigm.

Key points presented included:

- **Rationale**:

  o It was noted that nearly 75% of emerging infectious diseases in India are zoonotic.

  o Factors such as biodiversity, dense human and animal populations, and environmental pressures were identified as increasing the risk of outbreaks.

- **Institutional Mechanisms**:

  To address the risks at the juncture of One Health, several national-level initiatives have been established such as:

  o The National One Health Mission, steered by the Office of the PSA and helmed by DHR/ICMR.

  o The National Programme for Prevention and Control of Zoonoses (NOHP-PCZ).

  o The National Programme on AMR Containment and the Climate Change and Human Health (NPCCHH) initiative.

  o Disease surveillance programs like IDSP/IHIP, and disease-specific efforts on rabies, snakebite, and leptospirosis.

  o Initiatives such as Sector Connect was mentioned as a key initiative for cross-sectoral capacity building.

Together, these initiatives form the backbone of India's strategic One Health response.

- **Stakeholder Framework**:

  o A multisectoral governance model was described, involving ministries, research institutes, private sector partners, and local governance structures.

  o Coordination mechanisms at national, state (SLZC), and district levels (DLZC) were noted.

- **Surveillance and Laboratory Networks**:

  o Sentinel surveillance for over 15 high-priority zoonoses and field epidemiology training across One Health sectors were reported.

- **Challenges**:

  o Persistent issues such as intersectoral coordination gaps, data silos, logistical constraints, and decentralization-related complexity were identified.

- **Way Forward**:

  o Digital integration of surveillance, state specific One Health models, laboratory capacity enhancement, and sustained political and financial commitment were recommended.

The detailed presentation is placed at **Annexure VI**.

ICMR Initiatives under the National One Health Mission

A detailed presentation on the Indian Council of Medical Research's (ICMR) contributions to NOHM was made by Dr. Nivedita Gupta, Head, Division of Communicable Diseases, ICMR. The role of ICMR in advancing integrated research, surveillance, and medical countermeasures under the mission was emphasized.

Key points presented included:

- **National Institute of One Health (NIOH)**: The establishment of NIOH in Nagpur as the mission anchor was noted, with updates provided on its infrastructure development.

- **R&D Initiatives**: A total of ₹23.37 crore was allocated in Year 1 for 20 research projects involving institutions such as ICAR, THSTI, IISc, IVRI, and others, encouraging cross-sectoral innovation.

- **Integrated Surveillance Programs**:

  o *Slaughterhouse Surveillance*: Over 5,500 samples were collected across 11 slaughterhouses in three states since August 2024.

  o *Bird Sanctuary Surveillance*: Surveillance of migratory birds and related environments was funded for ₹8.2 crore (Year 1).

  o *Hospital Wastewater AMR Monitoring*: Surveillance was initiated across 60 VRDLs, with training completed and sampling underway.

  o *Pan-India Syndromic Surveillance*: A ₹30 crore initiative enabled multiplex testing across a national network, with human cases of avian influenza (H5N1, H9N2) reported and data shared with WHO.

  o *Other Surveillance* : Acute Encephalitis Syndrome (AES), Acute Febrile Illness (AFI), diarrheal disease, and Chandipura virus surveillance programs were described.

- **Medical Countermeasures**: R&D efforts were highlighted for vaccine and monoclonal development against KFD, Nipah, Zika, and Avian Influenza.

- **Laboratory Strengthening**: All 22 labs in the National BSL-3/4 network underwent biosafety training. SOPs and assessment tools were developed for pathogen prioritization and lab quality enhancement.

The detailed presentation has been placed at **Annexure VII**.

Session II: Group Activity

Scenario Building Simulation Exercise

Conducted by: National Security Council Secretariat (NSCS), National Centre for Disease Control((NCDC) and National Institute for One Health

Pandemics of the scale of COVID-19 remain difficult to predict. One of the key lessons from the pandemic was the critical importance of inter-sectoral, inter-departmental, and inter-ministerial coordination. The National One Health Mission represents such a coordinated and collaborative framework. In India health is a State subject under the Constitution, a joint effort between the Centre and States becomes essential during outbreaks, epidemics, or pandemics.

Overview- Scenario Building Simulation Exercise: The exercise was designed at a functional level to demonstrate the operationalization of the One Health approach at the grassroots - covering State, District, Taluka, and Village levels. A hypothetical outbreak scenario was created in the north east region that has adjoining international borders, with a spillover into the neighboring states. The simulation incorporated challenges typical of the region, such as difficult terrain and a fragile law and order situation.

The National Joint Outbreak Response Team (NJORT), constituted in January 2025, was introduced during the exercise. The role and functioning of the Public Health Emergency Operations Centre (PHEOC) were also covered.

Learning Objectives:

- To understand the complexities of managing an outbreak in remote, international border-sharing areas of Northeast India.

- To highlight the need for coordinated action among multiple stakeholders for effective joint outbreak response. To familiarize participants with the concepts of the National Joint Outbreak Response Team (NJORT) and Public Health Emergency Operations Centre (PHEOC).

Picture of the team from NSCS, NCDC and NIOH apprising the participants on the scenario building simulation exercise

Conduct of the Simulation Exercise

Grouping: Four mixed groups were constituted, comprising representatives from multiple disciplines, including medical, veterinary, environmental, plant, and agriculture sectors, from various States/UTs and central government departments.

Background Information: A brief overview of the geographic, socio-cultural, and political context of the region was provided. Participants were briefed on the local culture, demographics, occupational patterns, health infrastructure, and the topography of the affected districts. Relevant maps were shared to enhance understanding of the operational challenges during a public health emergency in these areas.

Scenarios Presented: Three progressive scenario updates ('Injects') simulated an escalating outbreak among humans and pigs in Lunglei and Lawngtlai districts, extending into Manipur, which has a history of Japanese Encephalitis and Posterior Reversible Encephalopathy Syndrome (PRES).

These injects prompted active discussions among participants from States, UTs, and Central Medical and Veterinary departments. The challenges of surveillance, timely communication in remote settings, and the modalities of horizontal information sharing between districts, states, and neighboring countries were discussed. Additional topics included media engagement, communication strategies with bureaucracy and political leadership, and the necessity of a coordinated One Health approach.

Detailed scenario descriptions, expected responses, and discussion points were shared with the participants at the end of discussion following each inject.

Conclusion

The simulation exercise saw very enthusiastic participation from the State and UT representatives. The representatives from States & UTs were encouraged to familiarize themselves with the scope and functionality of the National One Health Mission, as envisaged by the objectives set forth by the Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC). Many participants were unfamiliar with the model of the National Joint Outbreak Response Team (NJORT). Therefore, the concepts of NJORT and the Public Health Emergency Operations Centre (PHEOC) were reiterated as key pillars in responding to public health emergencies. Participants were encouraged to explore the feasibility of establishing similar structures at the State and Union Territory levels. The simulation exercise concluded with the emphasis on a robust surveillance, joint training and coordinated response, which should be tested periodically by conducting such exercises at level of the States & UTs; which can finally culminate in mock drills like *Vishanu Yuddh Abhyas* that ultimately attribute to outbreak preparedness.

WAY FORWARD

Way Forward

The workshop concluded with a clear articulation of the way forward, grounded in the discussions and recommendations that emerged throughout the day. It was acknowledged that translating the One Health approach into effective state-level action requires targeted, coordinated, and achievable steps. To this end, participants were encouraged to align with four key priority areas identified for immediate follow-up:

1. Digital Infrastructure and Integration

- Encourage all States/UTs to develop their own One Health dashboards and dedicated websites to showcase state-level initiatives, data, and resources.

- Facilitate the integration of state-level dashboards/websites with the National One Health Dashboard for seamless information flow, visibility, and collaborative tracking.

2. Capacity Building and Training

- Support the development of dedicated One Health training modules and courses to be hosted on the iGOT Karmayogi platform, ensuring accessibility for officials across human, animal, and environmental sectors.

- Promote blended learning formats combining online and field-based modules to enhance on-ground operational capacities.

3. Data Standardisation

- Work with central ministries and technical agencies to define and roll out standardised data formats and protocols for inter-sectoral data collection, analysis, and sharing under the One Health framework.

- Encourage states to align their reporting systems with these protocols to enable interoperability and comparative analytics.

4. Youth Engagement and Innovation

- Promote the organization of One Health Hackathons at regional and national levels to engage youth, startups, and innovation hubs in solving real-world health-environment challenges.

- Incentivize cross-disciplinary student and early-career professional teams to develop tech-based and policy-level One Health solutions.


These directions are intended to guide the next phase of implementation under the National One Health Mission.

The workshop reaffirmed the importance of sustained collaboration and state ownership in building a resilient and integrated One Health ecosystem across India - advancing the collective vision of **'*Sarvasya Aarogyam*'**, or health for all.

SNAPSHOTS FROM THE WORKSHOP

Participants at the Registration Desk
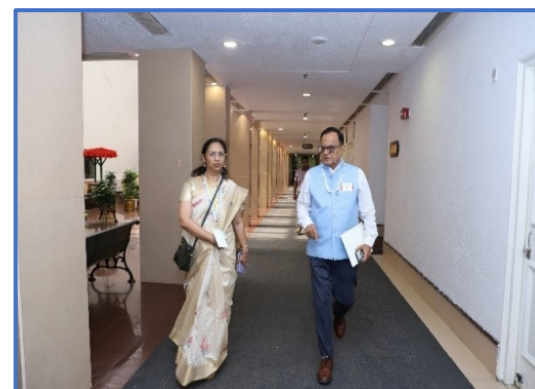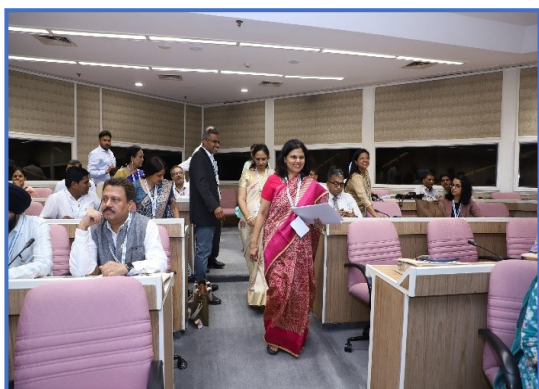
Address by dignitaries during the Inaugural Session
Arrival of Dignitaries

Presentations on One Health Mission and State Initiatives

Launch of Youth Engagement Program flyer and dashboard for One Health initiatives

Poster Session

Snapshots from the Group Activity Sessions and Way forward of the workshop

Participants Pictures

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Scenario Building Simulation Exercise

List of Annexures

Annexure I: Agenda

Time	Agenda Topic				
09:00 - 09:30 AM	Registration				
	Inaugural Session				
09:30 - 09:35 AM	Opening remarks by Prof. Ajay Sood, Principal Scientific Adviser (PSA) to the Government of India				
09:35 – 09:40 AM	Remarks by Ms. Punya Salila Srivastava, Secretary, Ministry of Health and Family Welfare				
09:40 – 09:45 AM	Remarks by Dr Rajiv Bahl, Secretary, Department of Health Research & Director General, Indian Council of Medical Research				
09:45 – 09:55 AM	Presentation on the National One Health Mission- vision, goals and role of states- Dr Sindura Ganapathi, PSA Fellow, O/o PSA				
09:55 – 10:05 AM	Presentation by Kerala state on One Health initiatives				
10:05 – 10:15 AM	Presentation by Gujarat state on One Health initiatives				
10:15 – 10:25 AM	**Launch of the Youth engagement program and Launch of One Health Mission Dashboard by the PSA**				
10:25 – 10:50 AM	**Poster Session followed by Group photo and Tea break**				
	Session I- Group Activity				
	Title: Framework for One Health operationalization: Governance, surveillance systems, outbreak response and capacity building				
	Governance & Policy	**Surveillance Systems**	**Outbreak Investigation & Response**	**Capacity Building & Data Sharing**	**Planning session for implementation framework** (By invitation)
10:50 – 12:15 PM	Chaired by Dr. Renu Swarup Moderator: NIOH	Chaired by Dr. N.K Arora Moderator: NCDC	Chaired by Lt. Gen (retd.) Madhuri Kanitkar Moderator: ICMR	Chaired by Prof Vijay Chandru Moderator: DAHD	Chaired by Dr Parvinder Maini, O/o PSA Moderator: O/o PSA
12:25 – 12:45 PM	Summary of session I chaired by the PSA (All the sessions will be briefed to the PSA by respective chairs based on which PSA will give future directions)				
12:45 – 01:10 PM	**Poster Session**				
01:10 – 02:00 PM	**Lunch**				

Time	Activity
02:00 – 02:10 PM	Presentation on Pandemic Fund by Dr Abhijit Mitra, Animal Husbandry commissioner, DAHD
02:10 – 02:20 PM	Presentation on NCDC's initiatives on One Health by Dr Ranjan Das, Director, NCDC
02:20 – 02:30 PM	Presentation on ICMR's initiatives under One Health mission by Dr Nivedita Gupta, ICMR
Session II- Group Activity	
Title: Simulation exercise on a disease outbreak situation (Led by NSCS, NIOH and NCDC)	
02:30 – 03:30 PM	Each group discusses on the presented scenario and presents its views on its management and response using a One Health approach (supported by activity coordinators)
03:30 – 03:40 PM	**Vote of Thanks**
03:40 – 04:00 PM	**Tea Break** / **Poster Session**

Annexure II: List of participants

Sl. No.	Ministry/Affiliation	Department	Name	Designation
1	O/o Principal Scientific Adviser to the GoI		Prof. Ajay Kumar Sood	Principal Scientific Adviser to the GoI
2			Dr. Parvinder Maini	Scientific Secretary, O/o PSA
3	Ministry of Health & Family Welfare	Ministry of Health and Family Welfare	Ms. Punya Salila Srivastava	Secretary
4		Indian Council of Medical Research	Dr. Rajiv Bahl	Director General, ICMR and Secretary, DHR
5	Chair, A&R Committee – BSL -3/4 Laboratory Network		Lt. Gen (Rtd.) Madhuri Kanitkar	Vice Chancellor, MUHS
6	Chair, A&R Committee- R&D Countermeasures		Dr. Renu Swarup	Former Secretary, DBT
7	Chair, A&R Committee- Data Integration		Dr. Vijaya Chandru	Executive Advisor, ARTPARK
8	Chair, A&R Committee- Surveillance &Outbreak Investigation		Dr. N. K. Arora	Executive Director, INCLEN
9	O/o Principal Scientific Adviser to the GoI		Dr. Sindura Ganapathi	Visiting PSA Fellow
10			Dr. Sangeeta Agarwal	Scientist F
11			Dr. Nidhi Thakur	Team Lead, One Health PMU
12			Ms. Arundhati Mohanty	Project Manager, One Health PMU
13			Dr. Dibyayan Deb	Project Manager, One Health PMU
14			Dr. Darshan N	Project Manager, One Health PMU
15			Ms. Richa Chaturvedi	Project Manager, One Health PMU
16	Ministry of Defence	Defence Research Development Organization	Dr. D.T Selvam	Scientist G
17		Remount Veterinary Services	Col Karun Chhikara	
18		Army veterinary Corps	Col Arun Kumar Yadav	
19	Ministry of Environment, Forests and Climate Change	Central Zoo Authority	Mrs Akanksha Mahajan	Deputy Inspector General of Forests

20	Ministry of Fisheries, Animal Husbandry & Dairying	Department of Animal Husbandry and Dairying	Dr. Aruna Sharma	Dy. Commissioner (LH)
21			Dr Adhiraj Mishra	Assistant Commissioner (LH)
22	Ministry of Health & Family Welfare	Indian Council of Medical Research	Dr Nivedita Gupta	Scientist G & Head (CD)
23			Dr Anoop Velayudhan	Scientist E
24		ICMR-National Institute of Virology	Dr Rima Sahay	Scientist- D
25		National Centre for Disease Control	Dr Ranjan Das	Director
26			Dr Meera Dhuria	Joint Director & DPHE & NCD Division
27			Dr. Shubhangi	Joint Director
28			Dr. Pranay Verma	Joint Director
29			Mr. Ramesh	Joint Director
30			Dr. Saurabh Goel	Joint Director
31			Dr. Sanket Kulkarni	Deputy Director
32			Dr. Jitesh Kuwatade	Asst. Director
33			Dr. Raghavendra	Asst. Director
34			Dr Ashna Bhasin	Asst. Director
35		National Institute for One Health	Dr Pragya Yadav	Director i/c
36			Dr Satish Gaikwad	Scientist
37			Dr Deepak Patil	Scientist
38			Dr Pankaj Singh Rawat	Scientist
39		Department of Health Research	Dr Harmanmeet Kaur	Scientist C
40			Dr Archana Upadhyay	Consultant
41		Directorate General of Health Services	Dr. A. Raghu	Deputy Director General
42	Ministry of Home Affairs	National Disaster Management Authority	Mr. Anuj Tiwari	Senior Consultant
43			Dr. Ghanishta Suri	Consultant
44	Ministry of Science & Technology	Department of Science and Technology	Dr. Ruchi Verma	Senior Consultant
45	Prime Minister's Office (PMO)	National Security Council Secretariat	Brig M.M Ramachandran	

Participation from states and UT in the Engagement Workshop under NOHM
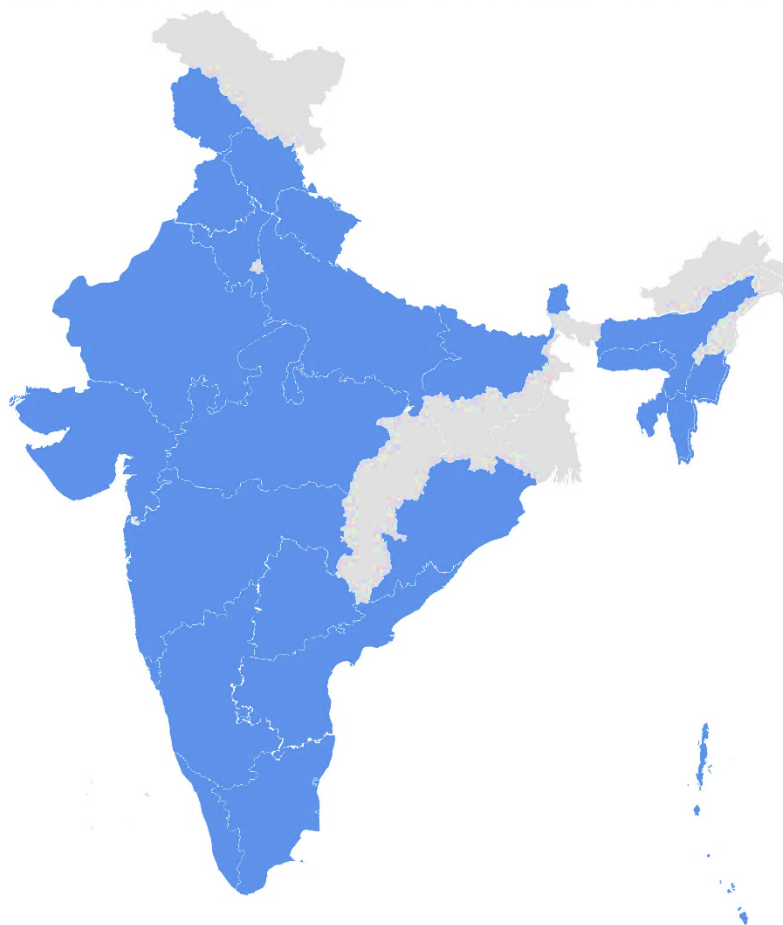
The engagement workshop under the National One Health Mission (NOHM) witnessed active participation from a broad spectrum of states and Union Territories (UTs) across India, indicating a growing interest and commitment toward operationalizing One Health at the sub-national level.

This geographic distribution reflects the early momentum and regional variations in One Health awareness and institutional readiness. The workshop provided a valuable platform to initiate state-level dialogue, understand local capacities, and begin the process of mainstreaming One Health approaches into governance frameworks. Going forward, targeted efforts may be needed to deepen engagement in underrepresented regions and ensure inclusive, pan-India participation.

Participants from State and Union Territories

Sl. No.	State/UT	Department/ Affiliation	Name	Designation
1.	Andaman & Nicobar	Directorate of Health Services	Dr. Avijit Roy	Deputy Director (Health)/NO NOHP for Control of Zoonoses
2.	Andhra Pradesh	Virology & Molecular Biology Lab, Veterinary Biologicals & Research Institute (VBRI)	Dr. G. Sireesha	Assistant Director
3.		Directorate of Health Services	Dr. N Malleshwari	I/O IDSP
4.	Assam	Animal Husbandry & Veterinary Deptt., Chenikuthi, Guwahati-3	Dr. Prabin Kumar Das	Additional Director
5.		Animal Husbandry & Veterinary Deptt., Chenikuthi, Guwahati-3	Dr. Nurul Islam	Veterinary Officer
6.	Bihar	Bihar Veterinary College, Bihar Animal Sciences University (BASU), Patna	Dr. Purushottam Kaushik	Professor & Head, Dept. of Veterinary Public Health & Epidemiology
7.		Institute of Animal Health and Production, Patna	Dr. Nitesh Kumar	JARO
8.	Chandigarh	Directorate of Health Services	Dr. Upendrajeet Singh Gill	Assistant Director Malaria -cum- State Surveillance Officer -cum- Programme Officer, NVBDCP & IDSP
9.	Goa	Directorate of Health Services	Dr. Utkarsh Betodkar	State Programme Officer, NRCP
10.	Gujarat	Directorate of Health Services	Dr. Jayesh Solanki	State Epidemiologist
11.		Health & Family Welfare Department	Dr. A.M. Kadri	Executive Director, SHSRC-Gujarat and Member Secretary, State Convergence Committee on AMR

12.		Directorate of Health Services	Dr. Jayesh Katira	Deputy Director-Epidemic
13.		Directorate of Health Services	Dr. Rajkumar Patel	veterinary consultant, one health
14.		Animal Husbandry Department	Shri. Vijay Singh Dahiya	Commissioner & Secretary to Government
15.		Dept of Commerce and Industries	Shri. D. Suresh	Principal Secretary to Govt of Haryana
16.	Haryana	DIC Gurugram	Shri. Sandeep Yadav	I/O
17.		DIC, Gurugram	Shri. Mono Sindho	I/O
18.		Animal Husbandry Department	Dr. Sunil Datta Sharma	Sub Divisional Officer, Tauru
19.	Himachal Pradesh	Deptt. Of HFW, National Health Mission	Dr. Hiten Banyal	State Nodal Officer, One Health
20.		Animal Husbandry Department	Dr. Vinay Kumar Sharma	Joint Director HQ
21.		Directorate of Health Services	Dr. Sameena Gul	State Surveillance Officer
22.	Jammu & Kashmir	Directorate of Health Services	Dr. Sumiya Niaz	IDSP State Vet Consultant
23.		Directorate of Health Services	Shri. Fayaz Ahamed	IDSP State Finance Consultant
24.		Dept. of Animal Husbandry and Veterinary Services, Hebbal, Bengaluru-560 024	Dr. Manjunath Palegar	Director
25.	Karnataka	Dept. of Animal Husbandry and Veterinary Services, Hebbal, Bangalore-560 024	Dr. K.H. Shivarudrappa	Additional Director (LHDC)
26.		Dept. of Animal Husbandry and Veterinary Services, Hebbal, Bangalore-560 024	Dr. T.S. Lohith	Chief Veterinary Officer, LHDC
27.		Health & Family Welfare Department, Govt. of Kerala	Ms. Madhavikutty M.S. IAS	Deputy Secretary
28.	Kerala	State Institute for Animal Diseases, Palode, Trivandrum	Dr. Sanjay D	Disease Investigation Officer
29.		Directorate of Health Services, Govt of Kerala	Dr. Ajan M J	Assistant Director (Medical) and State

				Nodal Officer (One Health)
30.		Directorate of Health Services	Dr. Ashish Saxena	DD NCD II
31.	Madhya Pradesh	Regional Office, MP Pollution Control Board, Gwalior	Shri. Arvind Kumar	Chemist
32.		Regional Office, MP Pollution Control Board, Gwalior	Shri. K.S. Rathore	Chemist
33.		Animal Husbandry-Dairy and Fisheries Department, Mantralaya, Mumbai	Dr. Ramaswami N. IAS	Secretary
35.		Groundwater Surveys and Development Agency, Water Supply and Sanitation Department	Shri. V. K. Pakhmode	Joint Director
36.		Maharashtra Institute of Mental Health, Pune	Dr. Shrikant S. Pawar	Assistant Professor
37.	Maharashtra	Maharashtra Institute of Mental Health, Pune	Dr. Krishna Kadam	Psychiatrist
38.		Commissionerate of Animal Husbandry Maharashtra	Dr. Shitalkumar Mukane	Additional Commissioner Animal Husbandry
39.		Public Health Department	Shri. Nipun Vinayak	Secretary
40.		Public Health Department	Shri. Virendra Singh	Secretary
41.		Directorate of Health Services	Dr. Babita Kamalapurkar	Joint Director
42.		Directorate of Health Services	Dr. S Gopal Singh	State Surveillance Officer IDSP
43.	Manipur	Directorate of Health Services	Dr. Bharati Meitram	State Epidemiologist IDSP
44.		Health and Family Welfare Department	Shri. Sampath Kumar. IAS	Principal Secretary
45.	Meghalaya	Directorate of Health Services	Dr. Valerie Laloo	State Surveillance Officer, Nodal Officer- One Health
46.	Mizoram	KVK Mamit District, Mizoram	Dr. Rebecca Lalmuanpuii	Asst Professor, Subject Expert
47.	Odisha	Animal Disease Research Institute (ADRI), Phulnakhara, Cuttack	Dr. S Parthasarathy	Research Officer, MVSc (Veterinary

				Public Health - IVRI)
48.		Directorate of Animal Husbandry & Veterinary Services, Mangalabag, Cuttack	Dr. Durga Prasad Das	Deputy Director (DC)
49.	Punjab	Directorate of Health Services	Dr. Manmeet Kaur	Assistant Director cum SPO "One Health Programme"
50.		Directorate of Health Services	Dr. Arshdeep Kaur	MO "One Health Programme"
51.		Directorate of Health Services	Dr. Ruchi Singh	State Microbiologist IDSP
52.		State Disease Diagnostic Centre (SDDC) in Jaipur, Rajasthan	Dr. Lenin Bhatt	Senior Veterinary Officer
53.	Rajasthan	SMS Medical College Jaipur	Dr. Bharti Malhotra	Sr Professor Microbiology & Ex Pro Vice Chancellor RUHS & Ex Dean Medicine RUHS
54.		Department of Environment and Climate Change	Shri. Abhishek Barayach	Environment Consultant
55.		Department of Environment and Climate Change	Shri. Shardul Kothari	Environment Consultant
56.	Sikkim	Health & Family Welfare Department Govt of Sikkim.	Dr. Kaden Zangmu Bhutia	Additional Director /IDSP
57.		One Health and Climate Change Hub	Dr. Shobha Govindan	Expert Advisor
58.		One Health and Climate Change Hub	Dr. Vijay Kumar	Nodal officer
59.	Tamil Nadu	Tamil Nadu Forest Department	Dr.R.Kanchana. IFS	Conservator of Forest
60.		Tamil Nadu Forest Department	Dr.R.Murugan. IFS	District Forest Officer & Wildlife Warden
61.		Tamil Nadu Coastal Restoration Mission (TN-SHORE),	Thiru. Sumesh Soman. IFS	Mission Director

62.	Telangana	Office of the Commissionerate of Health & Family Welfare, Hyderabad	Dr. Sumitra Nair	Joint Director (NOHPPCZ-One Health Programme)
63.		Telangana Forest Department	Shri. Rohith Gopidi. IFS	District Forest Officer, Nagarkurnool District
64.	Tripura	Animal Resources Development Dept., Government of Tripura	Dr. Jyotirmoy Roy	I/C Deputy Director
65.		Science, Technology & Environment, Government of Tripura	Shri. Susanta Banik	Senior Scientific Officer(A)
66.	Uttarakhand	Department of Animal Husbandry	Dr. Satish Joshi	Joint Director, Nodal One Health
67.		Department of Animal Husbandry	Dr. Neeraj Singhal	Director
68.		Department of Animal Husbandry	Dr. Udai Shankar	Add Director
69.		Uttarakhand state veterinary council	Dr. Kailash Uniyal	President
70.	Uttar Pradesh	Department of Health and Family Welfare	Dr. Vikasendu Agarwal	Joint Director IDSP and SNO

Participants from Knowledge Partners

Sl. No.	Organization	Name	Designation
1.	Alliance for Pathogen Surveillance Innovations (APSI)-India	Dr. Aruna Panda	Program Manager
2.		Dr. Somdatta Karak	Lead- science communication and public outreach (at CCMB)
3.	AI & Robotics Technology Park (ARTPARK)	Mr. Rohit Satish	Director
4.		Mr. Harish Nalawade	Program Manager
5.		Dr. Bhaskar Rajakumar	Program Director
6.	Centre for Cellular and Molecular Platforms (CCAMP)	Dr. Purnendu Bhowmik	Programme Manager, AMR
7.	Gujarat Biotechnology Research Centre (GBRC)	Dr. Madhavi Joshi	Scientist-D & Joint Director
8.		Dr. Apurvasinh Puvar	Scientist-B
9.		Dr. Niraj Kumar Singh	Scientist-D & Joint Director
10.	Indian Institute of Technology (IIT) Delhi	Prof. Vivek Kumar	Professor
11.		Prof. P K Singh	Professor
12.		Dr. Ashish Chauhan	Postdoctoral fellow
13.	National Institute of Animal Biotechnology (NIAB)	Dr. Madhuri Subbiah	Scientist-D

14.	Public Health Foundation of India (PHFI)	Dr. Raj Shankar Ghosh	Senior Advisor, Environmental Health
15.		Ms. Gina Sharma	Head of Communications - PHFI and Office of the President
16.	Tata Institute for Genetics and Society (TIGS)	Dr. Rakesh Mishra	Director
17.		Dr. Shivranjani Moharir	Senior Scientist
18.	Wadhwani AI (Artificial Intelligence)	Mr. Vipin Garg	Senior Program Manager
19.		Dr. Aparna	Program Manager
20.		Dr. Satish	Program Manager

Participants from Multilateral Organization

Sl. No.	Organization	Name	Designation
1	Brooke India	Dr Dinesh Gupta	Project Officer
2	Food and Agriculture Organization [FAO]	Dr Rajesh Dubey	National Operational Officer, FAO, India
3		Dr Vikram Vashist	National Consultant-Technical Officer-Epidemiology and Zoonoses
4	Gates Foundation	Dr Nidhi Jain	Senior Officer, Livestock, Bill and Melinda Gates Foundation, India
5	Program for Appropriate Technology in Health [PATH]	Dr Ankur Mutreja	Director - Strategy, Partnerships and Communication
6		Dr. Tikesh Bisen	Public Health Specialist - Surveillance
7	United Nations Development Programme [UNDP] - India	Dr Chiranjeev Bhattacharya	National Programme Manager - Health Systems Strengthening
8		Dr Atul Anand	Consultant One Health
9	World Bank	Dr Jeevan Mohanty	Consultant
10	World Health Organization [WHO] - India	Dr Ritu Chauhan	National Professional Officer - IHR WHO Country Office India

Annexure III

National One Health Mission: State and UT engagement workshop

JUNE 9, 2025

Governance structure of the mission: A collaborative effort

Government Stakeholders

- Indian Council of Medical Research (ICMR)
- Office of the Principal Scientific Adviser to GoI
- Department of Animal Husbandry and Dairying (DAHD)
- Ministry of Environment, Forest and Climate Change (MoEF&CC)
- Department of Pharmaceuticals (DoP)
- Ministry of Health and Family Welfare (MoHFW)
- Department of Biotechnology (DBT)
- National Centre for Disease Control (NCDC)
- Department of Science and Technology (DST)
- National Disaster Management Authority (NDMA)
- Council of Scientific & Industrial Research (CSIR)
- Indian Council of Agricultural Research (ICAR)
- Biosecurity (DRDO and NSCS)
- State Governments
- Ministry of AYUSH

Central wheel segments:
- Pandemic Preparedness (Human & Animal)
- Integrated Disease Surveillance
- Strengthening Routine Prevention Programs
- Joint Outbreak Response

National and International Partners

- Executive Steering Committee Chaired by Hon'ble Health Minister Secretaries/DGs as members
- Scientific Steering Committee Chaired by PSA Secretaries/DGs as members
- Advisory and review committees

- NGOs
- Private sector
- Multi-lateral organizations
- Academic institutions
- G-20 and other forums
- Public engagement

The National One Health Mission : Key Pillars

Focus areas of the Mission

- Integrated disease surveillance (built on existing programs, coordinated together)

- Joint outbreak response systems to control disease at the source

- Pandemic preparedness (disaster resilience, mock-exercises, compensation mechanisms etc)

- Enabling activities across R&D, data, regulatory and governance mechanisms
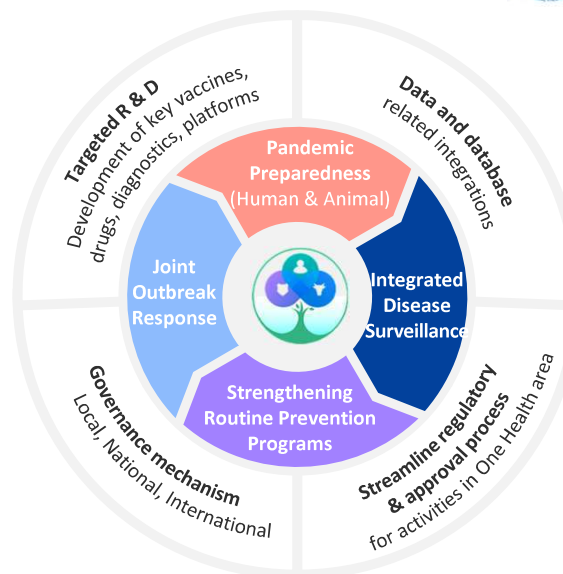
Operational Mechanism of National One Health Mission

Chaired by Hon'ble Health Minister and co-chaired by PSA	**Executive Committee**	• Policy Guidance
Chaired by PSA	**Scientific Steering Committee**	• Setting the scientific agenda • Oversight of all the mission activities
Chaired by Independent experts	**Advisory and review Committees**	• Advice & Review on the important aspects of the mission

Surveillance & Outbreak Investigation   BSL Labs   Research & Development   Data

Coordinated by Stakeholder depts- ICMR, NCDC, DAHD, MoEFCC, ICAR etc.	Subject specific working groups/committees constituted as per implementation requirement	• Planning & Implementation

Outcomes expected

- Better overall disease control across human, animal and environmental sectors.

- Comprehensive pandemic preparedness for both human and animal pandemics at national, state and community levels

- Strengthening existing programs and linking them (PM-ABHIM, PM-JAY, Health and Wellness Centers, Foot and Mouth Disease program in cattle, wildlife disease surveillance etc.). Building capacity in epidemiology, disease modeling and other analytics.

- Boost to Indian industries so they can support national and global preparedness with vaccines, drugs, diagnostics and digital tools

- Robust national network of institutions, BSL-3 labs, database linkages and framework for handling any upcoming diseases

- Demonstrating a model of comprehensive integration of human, animal and environment including public awareness

Annexure IV

Greetings from Kerala

One Health Programme– Kerala
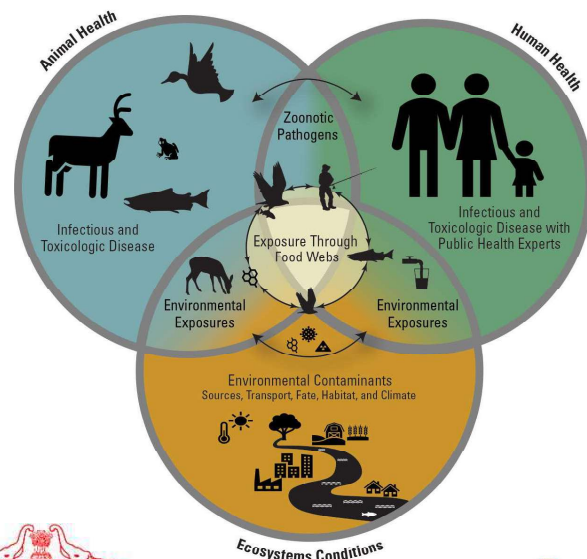
One Health Programme- Kerala

- DLI 6: Capacity to track and respond to zoonotic disease outbreaks of human importance in a timely manner
- IBRD-15, AIIB-15, AFB-5- Total 35 Million

Baseline	Intermediate-1	Intermediate-2	Intermediate-3	Intermediate-4	End Target
No formal district level One Health (OH) coordination platform. No community based OH surveillance protocols and systems.	DoHFW has operationalized district level OH coordination platform with trained and certified staff in Pamba Basin districts.	DoHFW has provided training to 250,000 LG and Kudumbashree members on protocols for community based OH surveillance in Pamba Basin districts.	DoHFW undertakes routine joint disease outbreak investigations and inspections in 4 Pamba Basin districts.	150 LGs are implementing community based OH surveillance in Pamba Basin districts.	DoHFW has identified and controlled at least one zoonotic disease outbreak of human importance in Pamba Basin districts in a year.

One Health Programme –Kerala- Brief

- **Hon. Chief Minister** launched the programme on **17 May 2022**
- As a first stage, OH Programme is being implemented in 4 Pamba basin districts – **Pathanamthitta, Alappuzha, Kottayam and Idukki.**
- As part of Aardram Mission the programme is being expanded to the remaining 10 districts
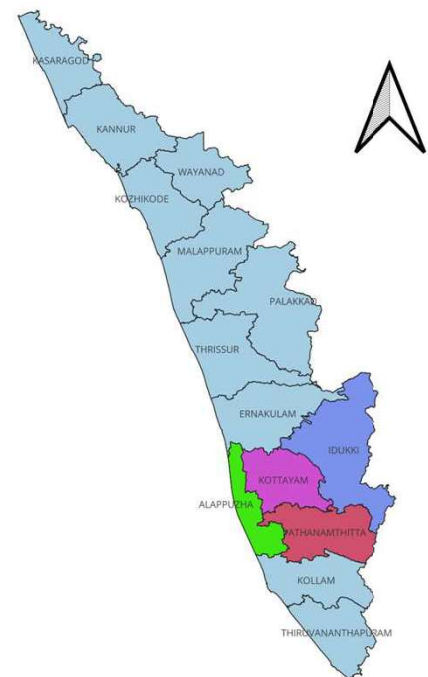
Key components of the programme

C 1. Establishing One health Platform

C 2. Strengthening Lab network- Integrated public health labs

C 3. Community based sustainable surveillance

C 4. IT enabled comprehensive M&E systems

C 1. Establishing One health Platform

Inter departmental collaboration platform established – All the line departments identified state level/ district level Nodal officers

State, District and LSG level OH committees established

Institutional collaboration established with KILA, SHSRC & KMSCL

Key Departments / Agencies involved in One Health Programme implementation

- Health & Family Welfare
- Local Self Government Department
- Agriculture & Farmer's Welfare
- Animal Husbandry
- Forest
- Fisheries
- Environment& Climate Change

- Dairy Development
- Food Safety
- Drug Control
- Irrigation
- Kerala Water Authority
- Kerala State Pollution Control Board
- National Health Mission

Governance and Coordination Frame Works of One Health Programme

- Established One Health governance and coordination platforms at State, District and LSG levels.

  ➢ State Level One Health Committee
  ➢ District Level One Health Committee
  ➢ LSGI Level One Health Committee

These committees will review the status of One Health Programme implementation at respective levels and plan a course of action.

State One health Committee	District One health Committee	LSG One health Committee
Chairperson – Hon. Minister for Health, Woman and child Development	Chairperson: District Collector	Chairperson: President/Chairman of Panchayat/Municipality/Corporation
Vice Chairperson- Additional Chief Secretary, Health and Family Welfare department	Convenor : District Nodal Officer NKKP2	Convenor : Medical Officer (PHC/FHC/CHC/TH)
Convenor- Director of Health Services	Members:	Members:
Members:	District Medical Officer	Secretary of the Panchayat/Municipality/Corporation
• Addl. Secretary, H & FWD, SMD, NHM	Deputy Director, Panchayats	Health Standing Committee Chairperson
• Project Director- E Health, MD, KMSCL	District Agriculture Officer	Line Department's frontline functionaries in the Panchayati Raj Institutions (P.R.I.)
• Joint Secretary, H & FWD	District Animal Husbandry Officer	
• Directors- LSGD, Animal Husbandry, Fisheries, Agriculture	District Fisheries Officer	
• Principal Chief Conservator of Forest	District Forest Officer	
• Commissioner, Food Safety, Director General, KILA	District Food Safety Officer	
• State Nodal Officer- One Health, Executive Director, SHSRC-K	District Surveillance Officer	
• Civil Society Representative	Civil Society Representative	

III Other governance structures of One Health Programme

A. Core Committee under the chairmanship of Additional chief Secretary, H & FWD - Coordinate and monitor One Health Programme at Department Level and meet frequently to assess the progress of the Project.

B. Technical Committee under the chairmanship of Head, Department of Infectious Diseases, Government Medical College, Thiruvananthapuram

-Vetting the protocols, technical proposals, training modules, etc. and to offer guidance in technical aspects related to One Health Programme.

Implementation of One Health Programme

Established the Centre for One Health – Kerala (COH-K) at State level (SPMU)

Centre for One Health Kerala

District Programme Support Units at District Level

- DMO is the overall authority
- DSO – to supervise all activities related to the implementation of One Health Programme
- District Nodal Officer –to coordinate the activities of One Health Programme.

C2. Strengthening Lab network-Integrated Public Health Labs

✓ Developed Tools for conducting Gap Analysis

👥 Employees of labs were oriented on using the tool for Gap Analysis

🔬 Gaps of 62 labs which includes labs of sectoral departments were analyzed

📋 Technical Committee vetted the requirements submitted by Labs

👍 Supply of approved items is progressing through KMSCL

C 3. Community Based Surveillance

2.53 L community volunteers trained as part of second year target

Tool kit for community based surveillance developed and training process initiated

Orientation on CBS & OH for elected representatives, officials of partner departments and community volunteers is ongoing. The aim is to implement CBS in all 266 LSGs across the four One Health districts by the end of June

C 4. IT enabled comprehensive Monitoring & Evaluation Systems

- Digital University-Kerala is the IT partner for One Health Programme – Kerala.
- Developed Web portal (website & registration portal) for the registration of District Mentors, Community Mentors and Community volunteers.
- Developing the official website for the One Health Programme – Kerala. https://www.onehealth.kerala.gov.in/
- Creating a registration portal for volunteers and mentors involved in CBS.
- Currently, an IT-based reporting system for CBS is under development. Until its launch, volunteers will report unusual health-related events via phone to officials of nearest health facility.
- Future Plans: Detailed Analysis and Dashboards & Predictive Analytics and Generative AI in One Health

Targets for 3 year -Undertakes routine joint disease outbreak investigations and inspections

- Workshops for SOP for conducting Joint Outbreak Investigations
- Health, animal husbandry, agriculture, pollution control, food safety, dairy development, fisheries, water authority, forest and medical education departments
- Prioritized diseases such as Leptospirosis, Vector borne diseases(dengue fever, chikungunya, Zika), Avian influenza, ADD, JE, West Nile fever, KFD and Nipah
- Piloted in 4 different ecosystems of One Health districts
- Modified SOP based on the findings of pilot

Glimpses from the piloting of Joint OBI

Idukki- Planning JOI at a check post (Srub Typhus)

Checking the water quality in Pathanamthitta (Hepatitis A)

Inter-sectoral coordination meeting in Alappuzha (Avian Influenza)

Collecting details from residents in Kottayam (Leptospirosis)

Training module development for health and other department staff

Training needs assessment completed- 2 workshops

Module and handbook developed

Plan for training developed

SOP –STATE LEVEL DEBRIEFING WORKSHOP

Hon. ACS addressing the meeting

Director, COH-K addressing the workshop

Alappuzha Team presents the findings of pilot study

DISTRICT ONE HEALTH ACTION PLAN-WORKSHOP

Kottayam Team presents the plan

Representative of AHD (Idukki) presents their plan

State Nodal Officer, KWA speaks in the open discussion

Concluding remarks by Hon.ACS

Proactive One Health Strategy

Community surveillance system

Capacity building to minimize the causative factors
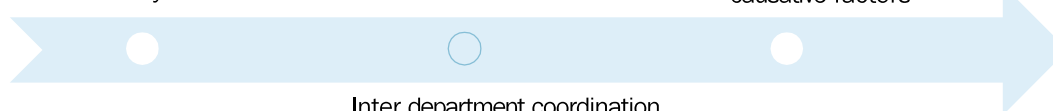
Inter department coordination – Joint Outbreak Investigation and evidence-based response

Implement
Implement community-based surveillance for proactive responses.

Foster
Foster inter-department coordination for joint outbreak investigations.

Strengthen
Strengthen capacity building to minimize disease risk factors.

Engage
Engage local communities in health initiatives and awareness.

Utilize
Utilize evidence-based approaches for effective disease control.

AMR Activities by Kerala Health Department

Activity/Initiative	Description
KARSAP	Comprehensive state action plan with a One Health approach
Awareness & Training	Classes, campaigns for medical professionals and public
Infection Prevention & Control	IPC programs in medical colleges and hospitals
Surveillance & Labs	KARS-NET, lab strengthening, data collection
Operation AMRITH	Pharmacy raids to prevent OTC antibiotic sales
Block-Level AMR Committees	Committees at all 191 blocks for grassroots action
Smart Antibiotic Hospital Initiative	Monitoring and stewardship in health centers
Research & Innovation	Pilot projects, collaboration with research institutions
Multi-Sectoral Collaboration	Engagement with animal, agriculture, environment, and private sectors

AMR Activities by Drugs Control Department

Activity/Initiative	Description
Operation AMRITH	Surprise raids, OTC sales prevention, public reporting, strict penalties
Prescription Audits	Monitoring and optimizing antibiotic prescriptions in healthcare settings
Quality Monitoring	Ensuring standard quality of antimicrobials, preventing spurious drug sales
KARSAP Collaboration	Regulatory actions, stakeholder engagement, One Health approach
Antibiotic Literacy Campaign	Public and professional awareness, responsible use promotion
KARS-NET Surveillance	Data collection, AMR trend monitoring, policy and regulatory support
PROUD Programme	Drug take-back for safe disposal of unused/expired antibiotics

Integration with National One Health Mission

Areas of integration identified are;	Knowledge Sharing	Research
Capacity Building	IEC	Establishing linkages with One Health Initiatives

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Thank you

Annexure V

State and Union Territory Engagement Workshop under National One Health Mission

Gujarat State's One Health Initiatives

Government of Gujarat

Governance and Institutional Mechanism For One Health

State level Convergence committee on One Health and AMR
• **Headed by** the Chief Secretary, Government of Gujarat
• **Key Members:** Additional Chief Secretary/ Principal Secretary/ Secretary from the Health & Family Welfare Department, Agriculture, Farmers Welfare & Co-operation Department, and the Department of Science & Technology.
• **ToR:** Providing strategic guidance to develop a Convergent Action Plan, ensuring interdepartmental coordination, and monitoring One Health-related activities across sectors.
State level Zoonotic Disease Committee
• **Headed by** the Principal Secretary, Health & Family Welfare Department
• **Key Members:** Health, Animal Husbandry, Agriculture, Forest, and Environment departments.
• **ToR:** Overall guidance and supervision for managing emerging and re-emerging zoonotic diseases, collaborates with district-level bodies and departments.
District level Zoonotic Disease Committee
• **Headed by** the District Magistrate/ Municipal commissioner
• **Key Members:** Health, Animal Husbandry, Agriculture, Forest, and Environment departments and Water Supply and Sewerage Board.
• **ToR:** Prioritizing zoonotic diseases, assessing local disease burden, advising on control measures, and working with RRTs for disease containment and laboratory surveillance.

National One Health Programme for Prevention and Control of Zoonoses (NOHP-PCZ)

- **Key strategies:** Collaborative framework between Health and Animal Husbandry Departments;
  - Joint outbreak investigations,
  - Zoonotic disease monitoring and
  - Capacity-building
- **Key output:**
  - 3 Medical College laboratories upgraded as sentinel sites. (2 functional/ 1 under approval)
- **Key Actions after zoonosis identified**
  - **District Epidemic Medical Officer** informed.
  - At the district level, a **coordinated response** is initiated.
  - Joint Actions are undertaken by coordination between the **Health** and the **Animal Husbandry Department** to investigate the outbreak.

Zoonosis sentinel site data (FY 2024-25)		
	Tested	Positive
Leptospirosis	298	12
Brucellosis	245	58
Scrub typhus	180	13

Key Outcome
- Identifying **Emerging Hotspots**:
  - **Cases identified in non-endemic districts** i.e. Ahmedabad and Bharuch.

Strengthening infrastructure

- **Gujarat Biotechnology Research Centre, Department of Science and Technology**
  - Successfully conducted **whole genome sequencing of SARS-CoV-2 (INSACOG) and Chandipura Virus (CHPV)**
  - **2nd institution in India**, after **NIV Pune**, to achieve landmark of complete genome sequencing of SARS-Cov-2 and Chandipura Virus during outbreak.
- **Upcoming BSL-4 Laboratory with ABSL 3 facility**
  - Gujarat to establish a **state-of-the-art BSL-4 lab with ABSL-3 Facility** under the **Department of Science & Technology, GoG**
  - This will serve as a hub for infectious disease research for pandemic preparedness as well as therapeutics and vaccine development

Network Program on Antimicrobial Resistance (AMR) and Superbugs

- Key strategies:
  - Tracking resistance patterns across sectors of human health and animal health and environment health
- Key Output:
  - A network of 38 labs across sectors: 27-Human, 4-Animal, 1-Fisheries and 6-Environmental
  - 18,000+ samples bio banked
  - AMR Dashboard created.
  - WGS of 5500+ Isolates, 850+ Metagenomes
- Key outcome:
  - Common resistance genes and high-risk clones were identified.
  - Evidence are being used for developing the state policy.

Environmental AMR surveillance

- Key strategies:
  - Environmental AMR surveillance of soil, river water, animal shelter, milk and sewage samples.
  - Sampling from 33 districts and 8 corporations
- Key Output:
  - Total sample tested: 2200+ milk, 50+ animal shelters 470+ river water and 670+ sewage sample.
- Key outcome:
  - Established systems to Benchmark, measure and monitor burden of AMR to generate evidence for targeted One Health interventions.

Model example of inter-sectoral collaboration to detect, understand, and mitigate AMR.

Forest and Environment Department

Sr. No.	Initiatives	Strategies	Output/ Outcome
1.	Surveillance in identified livestock zones and wetland areas	• Monitoring of emerging zoonotic viruses by Forest and Environment Department. • Virus diseases: Avian Influenza, Lumpy Skin Disease, and Foot-and-Mouth Disease.	• Total 8 livestock and 9 wetland zones identified. • Total 468 samples from wetland zones tested till now.
2.	Integrated Surveillance of Wildlife, Domestic, and Feral Animals for Zoonosis	• Tracks disease prevalence and incidence,	• Identifying zoonotic risks & • Reducing chances of spillover to wildlife or human populations.

One Health Zoonotic Surveillance

Sr. No.	Initiatives	Strategies	Output/ Outcome
1.	One Health Poultry Hub (5-year project of Dept. of Science and Technology)	• Integrated surveillance and practices to reduce zoonotic risks and promote sustainable poultry farming.	• Sampling of poultry, humans, soil, and crops to assess zoonotic and AMR risk. • Total 300 samples tested.
2.	One Health Reporting System	• Initially, zoonotic data was shared cross-departmentally as and when required (during outbreaks). • Institutional mechanisms developed for cross-sectoral data sharing every quarter on zoonotic diseases, antimicrobial resistance (AMR), and pesticide residues.	• System for data sharing established. • 7 zoonotic disease identified for reporting. (including 6 disease from IDSP L form). • 2539 Labs reporting in IHIP under IDSP

One Health Zoonotic Surveillance
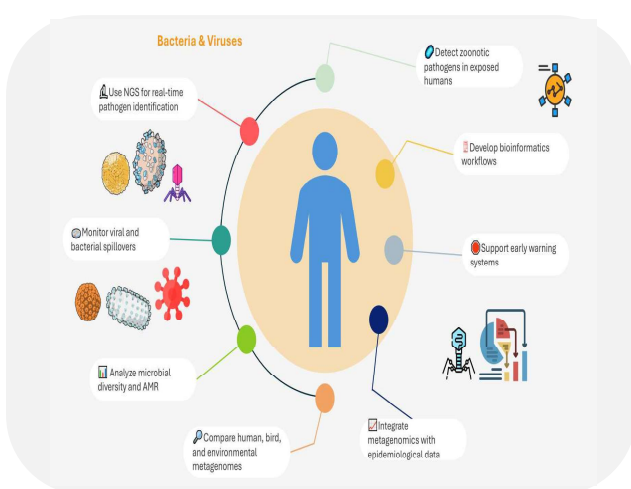
• Under the National One Health Mission of the Office of PSA, ICMR has started a Project on Building a surveillance model for detecting zoonotic spillover in increased bird-human interaction settings using the One Health approach: A study at selected bird sanctuaries and wetlands
• GBRC is one of the partner in the project among 13 partners across country, .

State Action Plan for Containment of AMR – One Health Approach

Initiatives under SAPCAR

- Institutional mechanism for AMR containment established in 94 Govt. hospitals.
- AMR Surveillance network developed covering 21 Govt. Medical College Hospitals.
- Pilot carried out in 1 district for collection of unused antibiotics from pubic places and chemist shops.
- 3 high-end equipment provided to 35 tertiary care hospitals.
- State in process of AMS accreditation for health facilities and creating centers of excellence.
- 500+ health professionals trained for capacity building in AMR containment.
- AMR digital dashboard for monitoring and feedback.

- SAPCAR-G was officially adopted on June 30, 2024, making Gujarat the sixth state to implement such a program.
- It outlines strategies and interventions across human, animal and environmental sectors.

Capacity building initiatives

Sr. No.	Initiatives	Strategies	Output/ Outcome
1.	Foundation Course on Public Health Emergency and Disaster Management	• A three-month, on-the-job training program	• 3 batches trained in 33 districts and 8 corporations • 198 district level workforce from various sectors (human health, animal health, wildlife, and food safety)
2.	Sector connect Field Epidemiology Training Program for One Health Practitioners	• On the job One Health training programs	• 4 batches trained in 33 districts and 8 corporations. • 198 district level workforce from various sectors (human health, animal health, wildlife, and food safety).

Key outcome: Gujarat is first state to develop district level workforce across all concerned sectors for One Health Action

AES Epidemic Management (14 July – 14 August 2024)

Gujarat's Convergence & Inter-Sectoral Response to AES Outbreak Management

- **164** suspected AES cases; **61** confirmed Chandipura virus cases
- Daily monitoring and directives from **Hon'ble Chief Minister** ensured coordinated response
- **Joint Rapid Response Teams (RRTs)** conducted field investigations
- **GBRC**: Conducted whole genome sequencing of CHPV
  - 2nd institution in India after **NIV, Pune** to achieve this milestone
- **Sero-surveillance** in human and animal populations
- Enabled **real-time cross-departmental data sharing and analysis**
- **Active surveillance** in over **53,000 households**
- **Extensive vector control** across lakhs of households, schools, and **Anganwadi centers**

Hon'ble Chief Minister meeting

Hon'ble Health Minister visit

Program for Prevention and Control of Leptospirosis

Gujarat's Convergence & Inter-Sectoral Response to Leptospirosis Prevention and Control

- **State and regional level interdepartmental meeting** for planning and implementation convened **every June**, involving key departments - Health, Agriculture, Animal Husbandry.

- **Chemoprophylaxis** provided to over **6 lakh** individuals in high-risk villages.

- **1093 samples** collected for **sero-surveillanc**e to monitor zoonotic transmission.

- **Regional meeting** with district officials from endemic areas and faculty from medical colleges.

- **Intersectoral data sharing** for an integrated One Health response.

- Health & Family Welfare, Agriculture, and Animal Husbandry Departments **jointly led** leptospirosis control through **action** planning, chemoprophylaxis, rodent control, field training and surveillance

Decline in Leptospirosis Cases and Deaths (2011–2024)	
Cases: 97.6% decrease	• 2011 → 916 • 2024 → 22
Deaths: 97.2% decrease	• 2011 → 177 • 2024 → 5

Thank You!

Annexure VI

Department of Animal Husbandry and Dairying
Government of India
पशुपालन एवं डेयरी विभाग, भारत सरकार

Pandemic Fund Proposal:
"Animal Health Security Strengthening in India
for Pandemic Preparedness and Response"

Department of Animal Husbandry & Dairying
Ministry of Fisheries Animal Husbandry & Dairying
Government of India

Animal Health Security Strengthening in India for Pandemic Preparedness & Response

The Pandemic Fund received around 350 Expressions of Interest (EoI) and 180 full proposals in the first call

Pandemic Fund's Governing Board approved 19 grants in 37 countries across 6 regions

DAHD (GoI) bagged Pandemic Fund of 25 m USD

Implementing Entities (IEs)

The Pandemic Fund — FOR A RESILIENT WORLD

ADB — ASIAN DEVELOPMENT BANK

THE WORLD BANK

FAO — Food and Agriculture Organization of the United Nations

Pandemic Fund Project

Major Interventions

- Strengthening and integrating disease surveillance and early warning system
- Strengthening of Lab network LIMS & LQMS
- Meta-genomic or Environmental surveillance
- Capacity building for data analytics for risk analysis and risk communication
- Regional cooperation through cross border collaboration
- Community Engagement

Pandemic Fund Grant- $25mn

Implementing Entities (IEs)

ADB — ASIAN DEVELOPMENT BANK
FAO
THE WORLD BANK

Others 1%
Capacity Building 45%
Infrastructure 54%
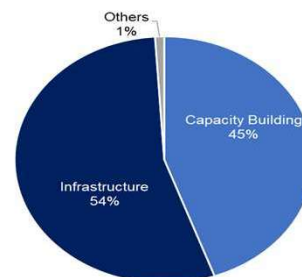
Launched on 25th October, 2024

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1. Augmenting Laboratory Systems

Strengthening of Laboratory System

- Upgradation of labs including CDDLs, RDDLs, and veterinary colleges with a focus on operationalization of LIMS, LQMS, laboratory / facility designs (Architectural layout, personnel flow.), utilities and equipment, quality management system (QMS), sample collection and SOPs and protocols.
- Facilitate external quality assessment/accreditation of Labs

Establishing Animal Health Laboratory Network

- Facilitate & strengthen TADs/EIDs/ Zoonoses Laboratory Network (INTEZ), Genomic Surveillance Laboratory Network (INGeS), Indian Network for Fisheries and Animal's Antimicrobial Resistance

2. Strengthen Surveillance and Early Warning Systems

Identification of Priority Diseases

- Identify priority diseases (including disease 'x', and natural disasters threats)

- Sensitize simulation exercises at state, interstate, and cross-border levels.

Improving Field Outbreak Investigation System

- Risk mapping of hot spots
- Review SoPs
- Strengthen sample collection systems and processes
- Build alert mechanism using IT based tools

Strengthening Disease Surveillance

- Develop guidelines
- Develop AMR sampling framework
- Develop framework for waste management practices and disposal at farm and other VC nodes, and soil, water testing
- Develop investment plan for infrastructure/hardware

---

3. Strengthening Capacity and Competency/ Human Resources Development

Institutionalization of Rapid Response Mechanism

- Establish core inter-disciplinary rapid response team to conduct surveillance and disease outbreak investigation

Inter-sectoral training under one health lens

- Conduct training of wildlife and forest department personnel on disease surveillance, data collection and sampling.

- Conduct competency-based training for veterinarians, para-professionals, laboratory technicians, CAHW, and food processing industry workers.

4. Data Systems and Analytics, Risk Analysis, and Risk Communication

Strengthening IT System/architecture

- Develop disease forecasting models and early warning systems.
- Ensure data interoperability across labs, farms, and institutions.
- Pilot digital health innovations and integrated surveillance.

Development and Dissemination of IEC on Risk Communication

- Develop guidelines/Information Education Communication material on risk communication

- Develop community engagement/awareness creation material

Data Modelling for Disease Forewarning

- Review and facilitate strengthening the SOPs, for zoonotic disease response & reporting
- Levarage data from CDDLs, RDDLs, private labs, poultry farms, State veterinary hospitals and dispensaries, veterinary colleges, and corporations.
- Develop disease modelling system for early warning prediction

---

5. Cross-Cutting Gaps in Institutional Capacity, both National and Regional

Disaster Preparedness in Livestock Sector

- Develop a disaster management framework specific to livestock.

Enhancing Risk Communication

- Develop IEC materials and guidelines for risk communication.
- Roll out One Health outreach campaigns for community awareness and behavior change.
- Engage national institutions through food safety consultations.
- Conduct food safety training workshops.

Regional Collaboration and Coordination

- Host bilateral workshops to coordinate transboundary disease response and AMR.
- Strengthen regional platforms for coordination and information sharing.
- Conduct border-state workshops for future regional animal health initiatives.

Improving Animal Health

Livestock Diseases Burden of Major Disease (FMD, PPR, CSF Brucellosis)

₹ 55,000 Cr. Annual Loss

THESE ARE VACCINE PREVENTABLE DISEASE

Vaccination Status as of May'25

Livestock Health & Disease Control Programme (LH&DCP)

World's largest animal vaccination programme

100% sponsored by Government of India

Vaccination of Major Diseases Under LH&DCP

118.55 Cr	Foot and Mouth Disease (FMD)
26.84 Cr	Peste des Petits Ruminants (PPR)
4.58 Cr	Brucellosis
0.87 Cr	Classical Swine Fever (CSF)

26.38 Cr — Lumpy Skin Disease (LSD)

4340 MVU sanctioned

National Digital Livestock Mission : Bharat Pashudhan

Traceability: Database **"Bharat Pashudhan"** with unique 12-digit Tag ID as a primary identification key

Sero Surveillance & Sero Monitoring

Information Communication Technology: 1962 Mobile application for Livestock farmers
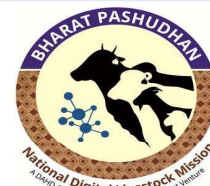
9.34 cr — Livestock owners registered

34.94 cr — Pashu Aadhar

25 — Transactions/Sec

*Transaction: Vaccination, AI, PD, Calving, Deworming, Animal treatment, Flock vaccination, Milk sampling..

1962

अपने खाते में लॉगिन करें
पुनः स्वागत है!

गोवंश नंबर
8526963250

नाम
सोहन कुमार

लॉगिन

भाषा: अंग्रेजी

पंजीकृत उपयोगकर्ता के रूप में लॉगिन करें

Regulatory Mechanism

Empowered Committee on Animal Health(ECAH)- Chair PSA to GOI, Secretary (AHD), Vice Chair

2 Sub committees under ECAH

Subcommittee to 'Assess and provide recommendations on submission of veterinary vaccines/biological/drugs for policy input'

The committee examine the proposals for drugs/feed additives/supplements keeping in view of the emergence of AMR

Subcommittee– Import of Feed additive and feed supplement

Discourage recommending medically important antibiotics for manufacturing or importing

Digital Platform

- **NANDI:** NOC Approval for New Drugs and Inoculation System
- NANDI system developed and integrated with Sugam of CDSCO

Self-Declaration of Freedom from HPAI in Compartments

Global animal health body OKs India's bird flu self-declaration

TNN | Oct 15, 2023, 12.17 PM IST

NEW DELHI: In a significant development that would open up new opportunities for Indian poultry in the global market, the World Organisation for Animal Health (WOAH) has approved the country's self-declaration of freedom from Highly Pathogenic Avian Influenza (HPAI), commonly known as bird flu, in specific poultry compartments (approved farms) in Maharashtra, Tamil Nadu, Uttar Pradesh, and Chhattisgarh.

India is currently the third-largest producer of eggs (130 billion) and the fifth-largest producer of poultry meat (4.5 million tonnes) in the world. During the 2022-23 fiscal year, India exported poultry and poultry products to 64 countries, generating revenue of 134 million USD.

Zoning and compartmentalization are strategic tools used to establish and maintain groups of animals with specific health statuses for the purposes of international trade and disease prevention or control. It involves defining a sub-population of animals with a specified health status within the national territory.

India's commitment to International Biosecurity Standards

The self-declaration approved by WOAH

States	Total No of Compartment
Tamil Nadu	21
Maharashtra	13
Chhattisgarh	6
Odisha	1
Uttar Pradesh	2
Total	**43**

- Boosting the export prospects of products like meat and eggs.
- Open up New opportunities in the global market,
- Contributing to the economic growth

Thank You!

Ministry of Health & Family Welfare
Government of India

An overview of One Health Activities in India

Prof. (Dr.) Ranjan Das
Director , NCDC
Directorate General of Health Services
Ministry of Health and Family Welfare
Government of India

BACKGROUND

What is One Health?

One Health is a collaborative, multisectoral, and trans-disciplinary approach - working at local, regional, national, and global levels - to achieve optimal health (and well-being) outcomes recognizing the interconnections between people, animals, plants and their shared environment.

▶ Human beings, Animals and Plants are co-existing in the same environment

▶ All are part of a larger communities
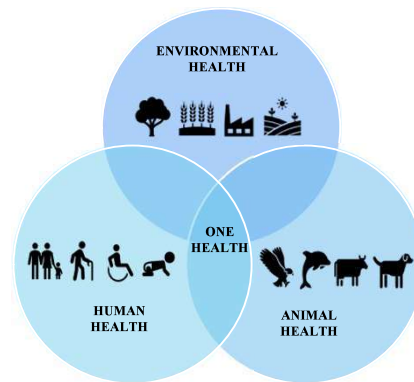
ONE HEALTH - HISTORICAL PERSPECTIVES

"

Hippocrates, Greek physician, wrote "Airs, Waters, and Places– the harbinger of One Health Concept

19th century **Dr Rudolf Virchow-** 'Between animal and human medicine there is no dividing line—nor should there be.

Dr William Osler- studied the links between human and animal health

Indian Scenario- Bhore Committee Constituted in 1946- suggested that "**health and development are interdependent**"

2004: Human and animal health experts at a symposium convened by Wildlife Conservation Society extends the concept of 'One Medicine' to 'One Health, One World'
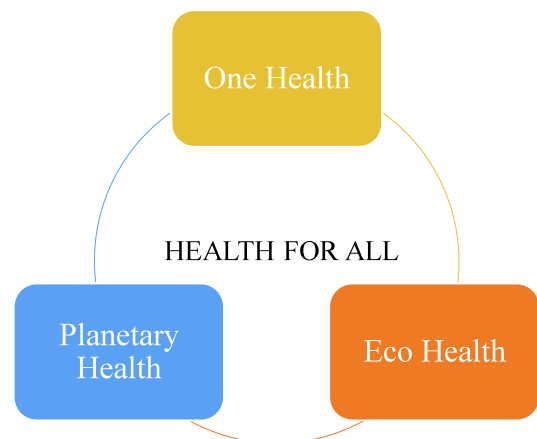
One Health Core domains
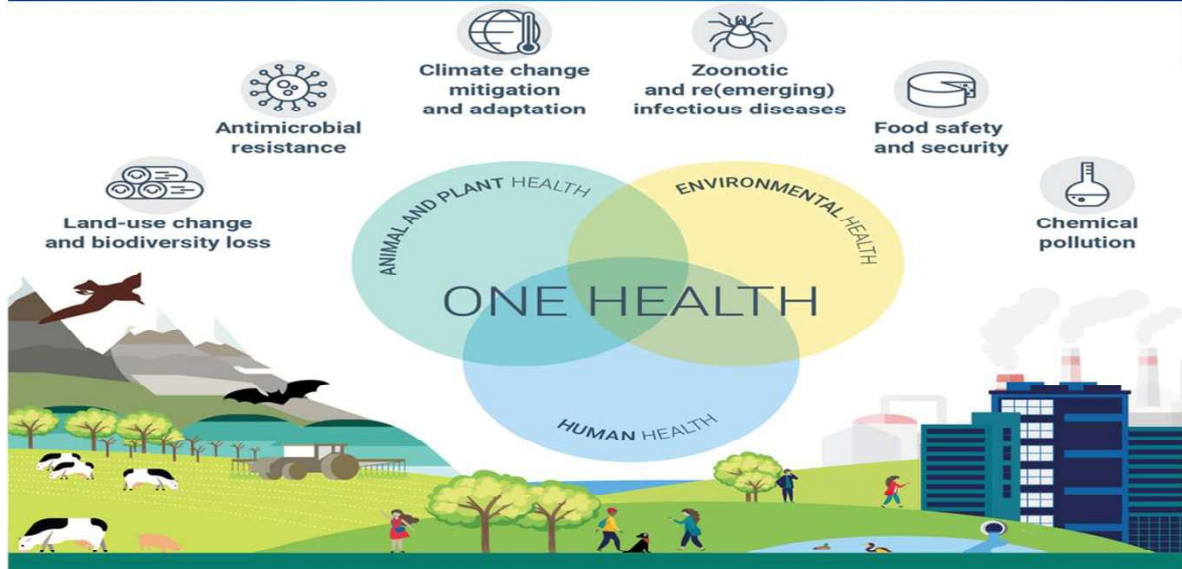
One Health: Animal Health and Welfare
impact livelihoods, income, food security, and the environment
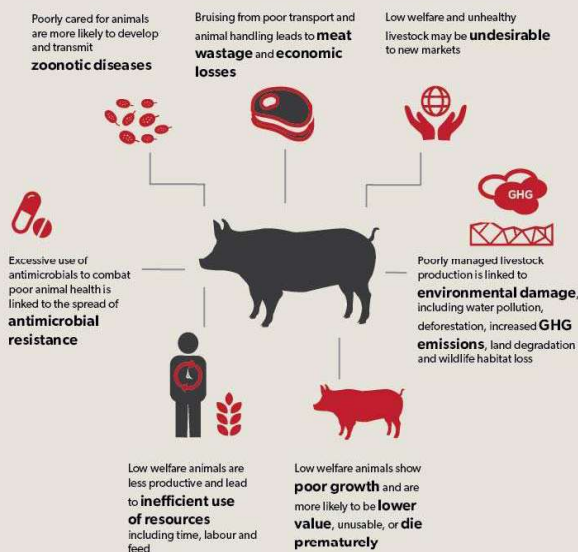
Antimicrobial Resistance- A Global Threat

- Socioeconomic inequalities
- Poorly planned urbanization and population growth
- Inequitable access to health care
- Inappropriate use of medicines (antimicrobials)
- Inequitable access to health care

Societal challenges

Environmental Challenges

Animal health Challenges

Anthropogenic Influence on Health

- Climate change and increase frequency of extreme weather
- Land use change
- Biodiversity loss
- Genetic diversity loss

- Disease emergence and pathogen spillover
- Wildlife population declines and species extinction
- Inappropriate use of antimicrobials, pesticides and insecticides
- Shrinking wildlife corridors

Importance of One Health Approach

75% of emerging infectious diseases (**EIDs**) are zoonotic

60% of human pathogens are animal origin

WHY ONE HEALTH?

5 new human diseases appear each year

Globally, **2.5 billion** cases of sickness and **2.7 million** deaths/year

(Osterhaus *et al.*, 2020)

What is driving the emergence of zoonotic diseases and AMR?

▶ Interaction between intensification of livestock production, zoonoses & antimicrobial resistance

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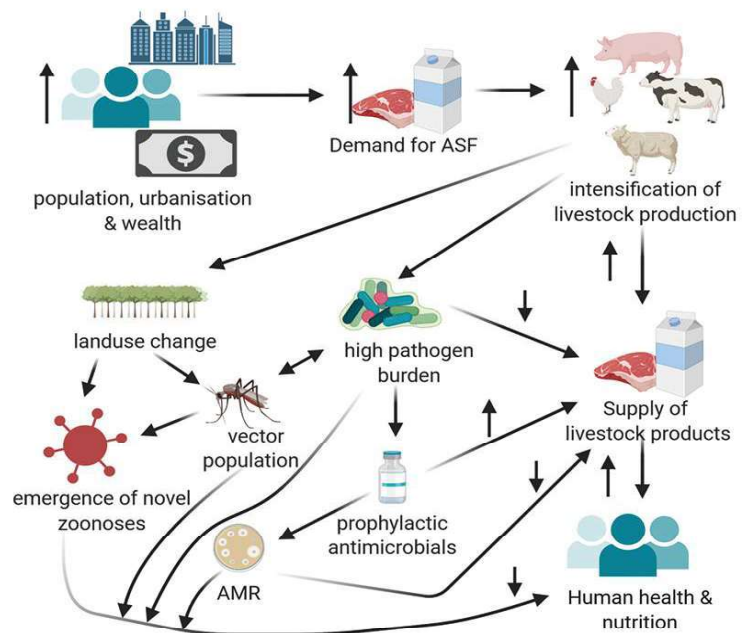
One health approach is crucial

- To Reduce spill Over event and Pandemic Risk

- To Protect Global community

- To Protect Planetary health

Global Initiatives on One Health

2004
12th Recommendation- Manhattan principal

2008
FAO, OIE, WHO, collaborate with UNICEF, UNSIC & the world bank to develop Joint Strategic framework

2007
One Health Commission- American Veterinary Medical Association, American Public Health Association, American Medical Association

2009
USAID launched Emerging Pandemic threats Program
One Health Office established at CDC

2010
The Tripartite Concept Published. UN and world Bank recommended adoption to One Health Approach

2013
Annual International Congress on Pathogens at the Human-Animal Interface – ICOPHAI

2022
MoU Between FAO, OIE, UNEP and WHO
One Health Agenda on G7 and G20

2012
One Health Summit in Switzerland

2021
First Health Working Group meeting- On One Health

TOOLS FOR ONE HEALTH IMPLEMENTATION AND ACCESS LINKS

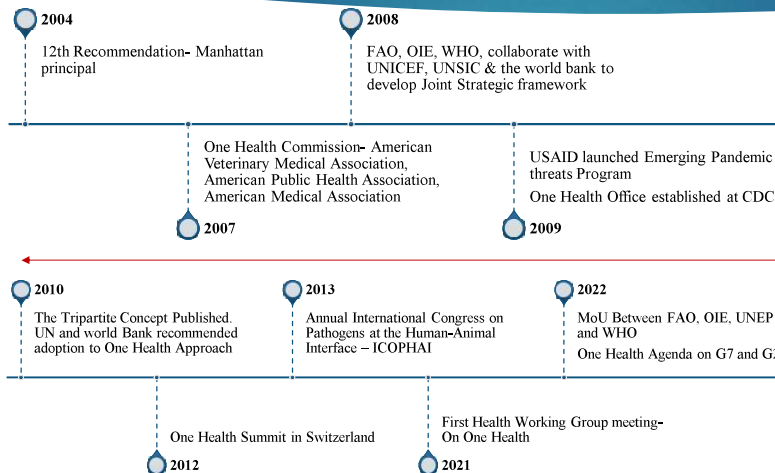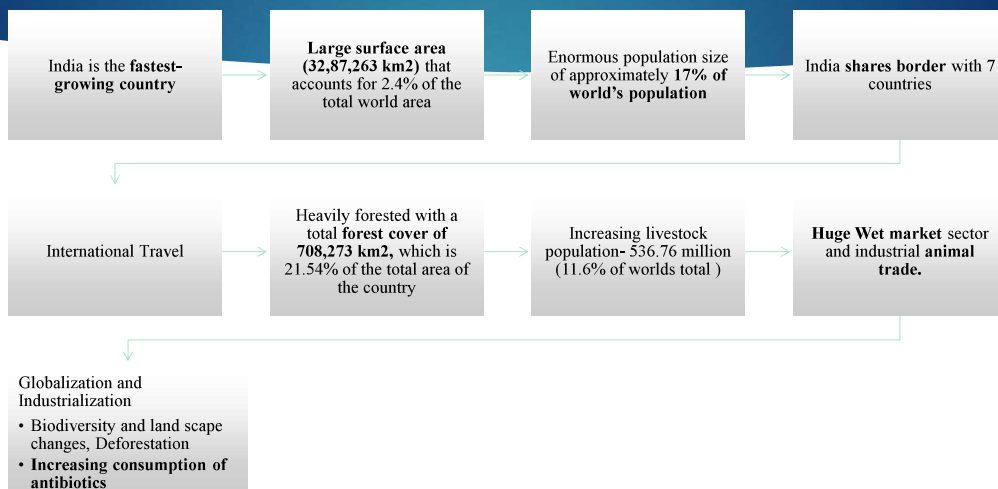| S.No.	Name of the tool	Developed by	Link to access	Purpose
1	Joint Risk Assessment Operational Tool	Tripartite partners (FAO-WHO-WOAH)	Joint Risk Assessment Operational Tool (JRA OT)(who.int)	For applying a consistent and harmonized approach to assessing risks posed by zoonotic disease hazards
2	Multisectoral Coordination Mechanism Operational Tool	Tripartite partners (FAO-WHO-WOAH)	Multisectoral Coordination Mechanism Operational Tool (who.int)	To support national authorities to establish or strengthen their mechanism for multisectoral, One Health coordination to manage zoonotic diseases and other One Health threats
3	Surveillance and Information Sharing Operational Tool	Tripartite partners (FAO-WHO-WOAH)	Surveillance and Information Sharing Operational Tool (who.int)	To guide a stepwise process for countries to establish or strengthen their capacity for coordinated, multisectoral surveillance for zoonotic diseases
4	One Health Monitoring Tool (OHMT)	FAO and others	One Health Monitoring Tool (OHMT)	For policymakers to act strategically and target budget and other resources to increase the effectiveness and operational aspects of OH disease prevention and control
5	One Health Systems Mapping and Analysis Resource Toolkit (OH-SMART)	University of Minnesota and partners	Home	OH-SMART (One Health Systems Mapping and Analysis Resource Toolkit) (umn.edu)	To support systematic evaluation and enhancement in multisectoral coordination and collaboration, and increase capacity for complex health concerns through an operational, stepwise, and practical One Health approach
6	One Health Information Assessment Tool (OHIAT) Maturity Model	USAID-JSI-Tufts	One Health Information Assessment Tool (OHIAT) Maturity Model - JSI	To facilitate and improve collaboration among practitioners in One Health and digital health communities.
7	One Health Risk Analysis System (OHRAS)	One Health European Joint Programme	One Health Risk Analysis System (OHRAS) - and Home	Cohesive (ohras.eu)	To support countries to set up or strengthen their collaboration in the area of risk analysis of zoonoses and AMR using a One Health approach.
8	One Health Zoonotic Disease Prioritization	CDC	One Health Zoonotic Disease Prioritization (OHZDP)	One Health	CDC	To prioritize zoonotic diseases of greatest concern
9	One health joint plan of action	Quadripartite (FAO-WHO-WOAH-UNEP) partners	One health joint plan of action (2022-2026)	To guide and strengthen countries capacity to address complex multidimensional health risks with more resilient health systems

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Reasons for One Health Attention in India

India is the **fastest-growing country**

Large surface area (32,87,263 km2) that accounts for 2.4% of the total world area

Enormous population size of approximately **17% of world's population**

India **shares border** with 7 countries

International Travel

Heavily forested with a total **forest cover of 708,273 km2,** which is 21.54% of the total area of the country

Increasing livestock population- 536.76 million (11.6% of worlds total)

Huge Wet market sector and industrial **animal trade.**

Globalization and Industrialization
• Biodiversity and land scape changes, Deforestation
• **Increasing consumption of antibiotics**

Implementation Strategy for One Health Approach in India

Stakeholders for One Health in India

Key Stakeholders

- Animal Health sector
- Human Health sector
- Wildlife and environment sector
- Agriculture Sector
- Science and technology
- Local Governing Bodies + Municipal Cooperation

ICMR & ICAR

Supporting Partners

- Min. of Earth Sciences
- Min. of Home Affairs
- Department of Sciences
- National Disaster management Authority of India

Private Partners

- Non-Government Sectors
- Professional medical and Veterinary Organizations
- International Development organizations

Food and Agriculture Organization of the United Nations

ISRO

IFPRI

World Health Organization

OIE World Organisation for Animal Health

One Health Coordination and Collaboration

National One Health Mission- ICMR and PSA
National One Health Programme for Prevention and Control of Zoonoses (NOHP-PCZ)
National Programme on Antimicrobial Resistance (AMR) Containment
National Programme on Climate Change & Human Health (NPCCHH)
IDSP/IHIP – Digital Surveillance of 40+ Diseases Conditions
IHR – 2005 Implementation with Multisectoral One Health Approach
Rabies, Snakebite and Leptospirosis Programs
National Institute on One Health- ICMR
Multisectoral One Health Workforce Development by NCDC&DAHD –SectorConnect
DAHD with Bill & Melinda Gates Foundation 2021– (DAHD, MoFAHD), Animal Pandemic Preparedness Initiative of DAHD
Ministry of Science and Technology - One Health roadmap for India – MoS&T, One Health' consortium launched October 2021 (DBT – MoST)

Other One Health Centres in India

- One Health Trust (OHT-India), Bangalore
- Indian Institute of Public Health, Shillong
- Centre for One Health Education Research & Development (COHERD), IIPH Gandhinagar
- Centre for One Health, GADVASU
- One Health Centre, Manipal Academy of Higher Education (MAHE), Manipal
- One Health Centre- Global Health Institute
- Centre for One Health Education, Advocacy, Research and Training (COHEART), KVASU
- Kerala One Health Centre for Nipah Research
- One Health Division- ICMR- VCRC, Puducherry
- One Health and Climate Hub, Tamil Nadu

Institutional Mechanism on One Health

ICMR	NCDC–MoH&FW	Wildlife Institute of India, MoEF&CC	DADF, MoA&FW	ICAR

NATIONAL

National steering committee on Zoonoses

Standing Committee on Zoonoses

NOHPPCZ

Activities at all Levels:
- Joint Capacity Building
- Lab Strengthening
- Joint Risk Assessment & Comm Plan
- Joint Operational Research
- Joint Monitoring Mechanism and Periodic reviews

REGIONAL {RCC*}

REGIONAL COORDINATORS of "One Health"

Sentinel Surveillance Sites

Integrated One Health Community Outreach

STATE {SLZC}**

Wildlife	State Health Dept	State Vet. Officer

DISTRICT {DLZC*}**

Wildlife	DSO	Distt Vet. Officer

BLOCK

Block Level/PHC Medical Officer & Veterinary Officer
Front line workers
ASHA/ANM/PARAVETS

Panchayati Raj Inst	Milk Unions
Krishi Vigyan Kendra	NGOs/ Private

Wildlife Institutes

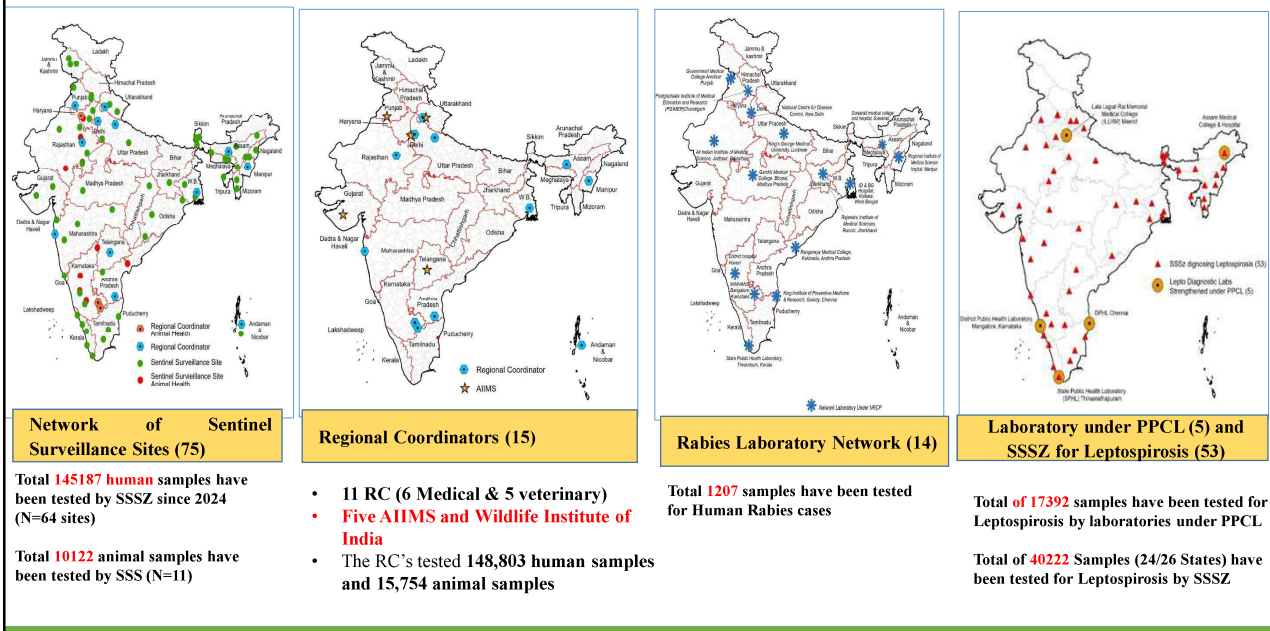World Health Organization   OIE WORLD ORGANISATION FOR ANIMAL HEALTH   FAO Food and Agriculture Organization of the United Nations   UNEP

*RCC: Regional Coordinators Committee
**SLZC: State Level Zoonotic Committee
***DLZC: District Level Zoonotic Committee

Implementation of One Health Activities- Zoonoses
National One Health Programme for Prevention and Control of Zoonoses (NOHP-PCZ)

Key Components

Institutionalize One Health	Integrated HR development	Integrated Surveillance	Community Outreach	Advocacy	Research
At National, State and district level (National Steering Committee on One health, RLZC , SLZC, DLZC are proposed)	Capacity Building through GIA to Regional Coordinators & partner Institutes	Establishment of Sentinel Surveillance Sites for zoonoses / Integrated Web/ digital Portal for zoonoses	Integrated Community Outreach Program on One Health	Advocacy and Risk Communication	Operational Research

Laboratory network on Zoonoses in India

Network of Sentinel Surveillance Sites (75)

Total 145187 human samples have been tested by SSSZ since 2024 (N=64 sites)

Total 10122 animal samples have been tested by SSS (N=11)

Regional Coordinators (15)

- 11 RC (6 Medical & 5 veterinary)
- Five AIIMS and Wildlife Institute of India
- The RC's tested **148,803 human samples and 15,754 animal samples**

Rabies Laboratory Network (14)

Total 1207 samples have been tested for Human Rabies cases

Laboratory under PPCL (5) and SSSZ for Leptospirosis (53)

Total of 17392 samples have been tested for Leptospirosis by laboratories under PPCL

Total of 40222 Samples (24/26 States) have been tested for Leptospirosis by SSSZ

List of Pathogens Covered by Laboratories under COH

Under this following Pathogens are covered-

SSS are covering three major syndromes i.e.,

- Acute Encephalitis Syndrome
- Acute Febrile Illnesses
- Pyrexia of Unknown Origin

Anthrax	CCHF	Human Rabies	Influenza (A and B)	Kyasanur Forest Diseases
Leptospirosis	Scrub Typhus	West Nile Fever	Brucellosis	Chandipura Virus
Hanta Virus	Lyme Disease	Toxoplasmosis	Cysticercosis	Echinococcosis
	Listeria	Q fever		

Implementation of One Health Activity- AMR
National Programme on AMR Containment

- Central Sector Scheme, initiated in 2013 for strengthening state govt. medical colleges for AMR surveillance
- In SFC for 2021-26, programme objectives expanded and aligned to human health sector activities in NAP AMR: IPC, HAI surveillance
- Till March 2024, **50 govt. medical colleges in 33 states/UTs**
- **10 additional sites approved** for inclusion in 2024-25. Signing of MoU under process

- **2 National Reference Labs** established (AMR in fungal and bacterial pathogens
- Sites being supported with funds for equipment, lab consumables, manpower, trainings
- Trainings (Laboratory methods; WHONET for AMR data management), review meetings & site support visits

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National Action Plan on AMR

- Developed in 2017 in alignment with Global action plan
- Three committees notified (re-notified in 2021): ISCC-AMR; TAG-AMR; CWG-AMR)
- Key challenges in implementation: Lack of ownership by non-human health sectors & states
- Many intersectoral activities through NACA (National Authority for Containment of AMR) – not constituted
- NAP AMR coordination: no dedicated manpower or funding
- Development of NAP AMR 2.0 (2024-2028):
  - ❖ Whole of government approach to contain AMR, dedicated unit and funding for NAP-AMR activities within each sector
  - ❖ NAP-AMR secretariat/coordination unit to be established at NCDC (under PMABHIM)
  - ❖ Activities to be integrated with existing programmes: laboratory/hospital strengthening programmes
  - ❖ Intersectoral coordination & collaboration through One health framework

SoPs, Guidelines, Policy Documents, Reports

# SectorConnect: Field Epidemiology Programme in One Health (FEPOH)

Program structure and content:

- 3-months in-service training

- One health disease surveillance and joint outbreak management

- Mentored field assignments

- Learning management system

Target audience: Multisectoral district officers

- Surveillance officers
- Epidemiologists
- Microbiologists
- VBD officers
- Veterinary officers

- Wildlife veterinarians
- Airport and seaport health officers
- Food safety officers
- Medical entomologists

Learning by doing together
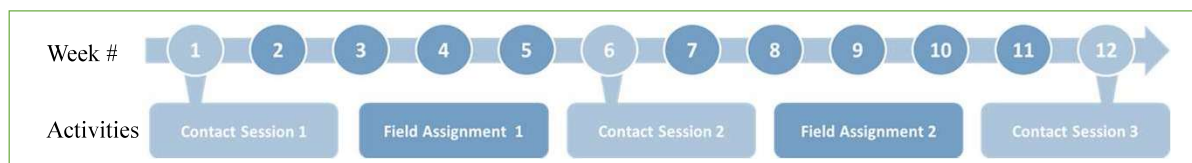
Routine Surveillance strategies across the domains of One Health in India (1/2)

Zoonoses (Human Health)	Zoonoses (Animal Health)	AMR
• IDSP (NCDC, MoHFW) • VRDL (ICMR) • NOHPPCZ (NCDC, MoHFW)	• NADRES v2 • NDLM (DAHD) • ADMSS (ICAR)	• National Program for AMR Containment (NCDC, MoHFW) • AMRSN (ICMR) • All-India Network Project on Antimicrobial Resistance (ICAR)

Routine Surveillance strategies across the domains of One Health in India (2/2)

Environment	Food Safety	Port Surveillance
• Water Monitoring CPCB, MoEFCC, and CWC, MoWR • Water Quality monitoring of drinking water MoWR • Soil tests (ICAR) • Meteorological Monitoring(IMD)	• Food quality tests through the INFoLNeT (FSSAI) • FoodNet (ICMR)	• PoE (IH, MoHFW) • AQCS (MoFAHD)

Challenges in Implementing One Health

Priorities are different for different sector.

Limited coordinated efforts among stakeholders and necessary policies for inter-sectoral collaboration

Biodiversity and challenging wildlife sector – urban- peri urban –rural and wildlife interface

Limited logistics

Human Health and Animal Health is a state subject.

Political will

Limited or Minimal Data Sharing between sectors

Low awareness among public, poor technical capability

Way forward

- Linkage of minimal essential parameters through stakeholder ministry on IHIP
- Disease forecasting in human and animal sector through integration
- Use of AI tools for integration and forecasting
- Advocacy of local one health models at selected districts

Thank You

National One Health Mission

Update on Activities Undertaken

Indian Council of Medical Research
Department of Health Research

09th June 2025

Dr. Nivedita Gupta
Head
Division of Communicable Diseases
Indian Council of Medical Research,
New Delhi

Objectives of NOHM

➢ **To undertake integrated and holistic R&D across human health, animal, plants and environment for early detection of epidemics/pandemics, following a 'One Health' approach**

➢ **To establish frameworks of integrated disease surveillance across human, animal & environment sectors**

➢ **To develop roadmap for targeted R&D for fast-tracking Medical Counter Measures (MCMs): vaccines, therapeutics, diagnostics, devices & genomic tools for pandemic preparedness**

➢ To coordinate research, data and information systems for current & emerging diseases for evidence-based decision making

➢ **To create a cadre of trained professionals for R&D, joint outbreak response, integrated surveillance and analytics across sectors**

➢ To foster linkages with global efforts for pandemic preparedness such as quadripartite (WHO, FAO, WOAH, UNEP), G-20, CEPI etc

2

National Institute of One Health at Nagpur
Anchor of the National One Health Mission

Objective 1: Holistic R&D across all sectors

- Twenty projects worth 23.37 crore (Year 1 budget) funded under NOHM in 2024-25

- The projects were received from: ICAR; THSTI; IISc; IVRI, Mukteshwar & Bengaluru; NRCE; NIHSAD; NIVEDI; NIFMD; KVAFSU; CADRAD and ICMR

Objective 2: Integrated Surveillance

1. Model surveillance projects at animal human interface
2. Waste water surveillance for AMR
3. Syndromic surveillance for infectious diseases

Surveillance in Slaughterhouses

S. No	State	Veterinary Institute/ Laboratories (Animal/ environment)	Laboratories (Human)
1	Punjab	Guru Angad Dev Veterinary & Animal Sciences University (GADVASU), Ludhiana	Dayanand Medical College and Hospital, Ludhiana
2	Telangana	National Research Centre on Meat (ICAR-NRCM), Hyderabad	Gauhati Medical College, Guwahati, Assam
3	Assam	College of Veterinary Science, Assam Agricultural University, Khanapara, Guwahati	All India Institute of Medical Sciences, Bibinagar

S. No	State	Name of the site	Role
1	Chennai	ICMR-National Institute of Epidemiology, Chennai	Data center
2	Karnataka	ICAR - National Institute of Veterinary Epidemiology and Disease Informatics, Bangalore	Data center
3	Maharashtra	ICMR-National Institute of Virology, Pune	Sequencing facility

Objectives:

- Detect & diagnose symptomatic illness among slaughterhouse workers.

- Understand the trends of zoonotic pathogens in animals and slaughterhouse environment

- Strengthen Next Generation Sequencing capacity for detecting unknown /novel pathogens

- Set up a model surveillance system for zoonotic diseases among slaughter house workers

Budget allocation: Rs. 13.75 crore over 3 years
PM ABHIM Funds

Surveillance in Slaughterhouses

- 11 slaughterhouses across three states include
- Poultry, pigs, sheep, goat and buffalo samples will be collected fortnightly
- Environmental samples to be collected fortnightly
- Human samples to be collected every week or as and when symptoms are reported
- Coordinated by ICMR and ICAR
- Project launched on 1st August 2024

Surveillance in Slaughterhouses: Update

- A total of 914 human samples; 4402 animal samples and 228 environment samples have been tested

- Temporally related acute positivity found for Toxoplasma, Brucella and Campylobacter in both animals and humans

- Samples have been sent for sequencing to determine the relatedness.

- 10% of the negative samples from all three sources (human, animals and environment) are also being taken up for sequencing

Surveillance in Bird Sanctuaries

Name of the Institute	Role
Laboratories	
Sir Thutob Namgyal Memorial (STNM) Hospital, Gangtok, Sikkim	Testing human samples
ICAR- National Institute of High Security Animal Diseases (ICAR-NIHSAD), Bhopal	• Testing bird samples and ectoparasites and their genomic characterization (virology) • Testing environmental samples and their genomic characterization
ICAR-Maharashtra Animal & Fishery Sciences University (MAFSU), Nagpur	Testing bird samples and ectoparasites and their genomic characterization (bacteriology)
ICMR-National Institute of Virology, Pune	Testing environmental samples and their genomic characterization
Gujarat Biotechnology Research Centre, Gujarat	Genomic sequencing & novel pathogen discovery
Surveillance Units	
Sikkim Manipal Institute of Medical Sciences, Gangtok	Surveillance unit for detection of symptomatic illness in bird sanctuary workers
Government Medical College, Baramati	
Bird and Environmental Sample Collection	
Ela Foundation, Pune	Collection of environmental samples
Bombay Natural History Society	Trapping of birds and collection of tracheal, cloacal samples & ectoparasites
Data Mining	
ICMR-National Institute of Epidemiology (ICMR-NIE), Chennai	Data mining (front end)
ICAR - National Institute of Veterinary Epidemiology and Disease Informatics	Data mining (back end)

Objectives:

• Detect & diagnose symptomatic illness among bird sanctuary workers

• To create a repertoire of pathogens in migratory birds and environment through periodic sampling

• Strengthen Next Generation Sequencing capacity for detecting unknown /novel pathogens

• Set up a model surveillance system for zoonotic diseases in bird sanctuaries

Total budget required: 19 cr
Year 1 allocation: 8.2 cr
Funds yet to be released

# Surveillance in Bird Sanctuaries
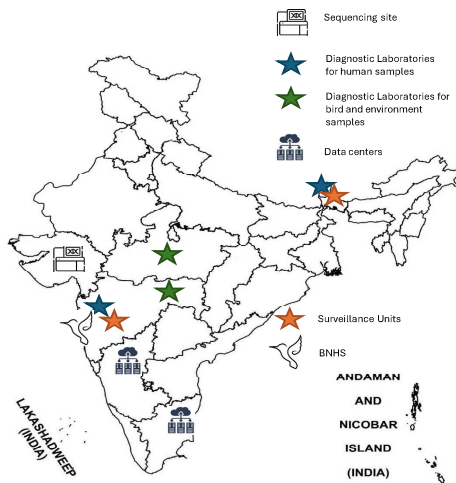
State	Name of Site	Type (Bird Sanctuary /Zoo /Wetland of international significance)
Sikkim (7)	Kitam Bird Sanctuary	Bird Sanctuary
	Sidkeong Tulku Bird Park	Bird Park
	Himalayan zoological park	Zoo
	Khecheopalri Lake	Wetland
	Phedang Tso	Wetland
	Pangolakha	Wildlife Sanctuary
	Fambong Lho	Wildlife Sanctuary
Maharashtra (4)	Bhigwan	Wetland
	Mayani bird Conservation Reserve	Wetland
	Veer Dam, Satara district, Pune	Wetland
	Visapur Dam, Ahmednagar district, Pune	Wetland

Antimicrobial Resistance Monitoring in Hospital Wastewater
## TIGS, Bengaluru and ICMR

Objectives

i) Studying the antimicrobial resistance (AMR) signatures at 60 VRDLs by metagenomic analysis of wastewater samples

ii) Customization of targeted AMR detection assays for AMR surveillance based on the metagenomic signatures

iii) Comparative analysis of the data generated by hospital wastewater AMR surveillance with the clinical antibiogram data

Duration: 2 years
Proposed budget: 50619000
Year 1 Budget: 27872000
Yet to be funded
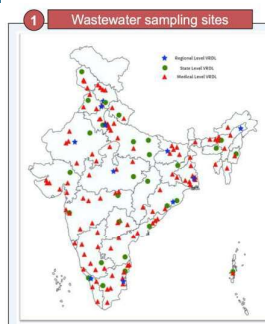
- All 60 VRDLs have been trained
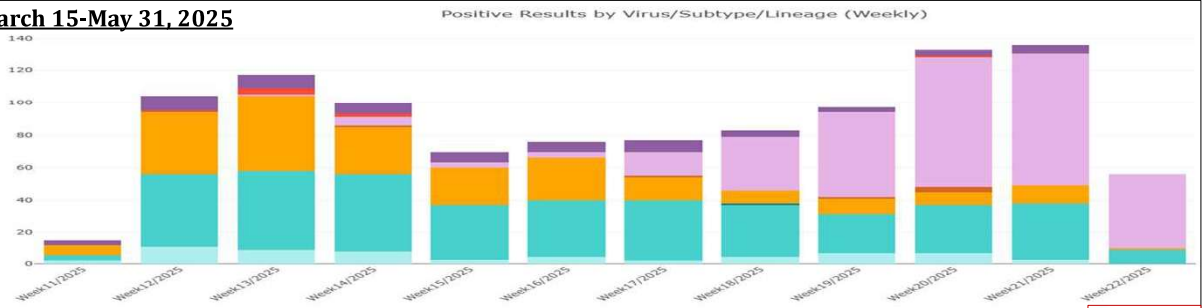- Sample collection initiated

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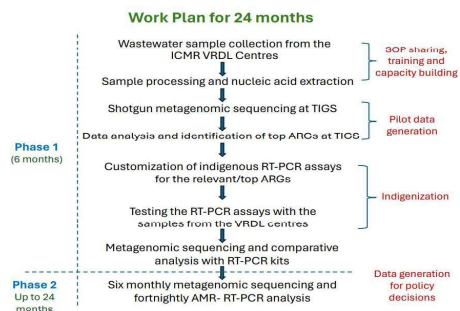
Pan-India Syndromic Surveillance for Respiratory Viruses

- Three-tiered network: 73 sites
- Captures the trends of circulating respiratory viruses
- Multiplex testing of four major pathogens
  - Influenza
  - SARS-CoV-2
  - RSV(in priority groups)
  - HMPV
  - Nipah virus (West Bengal and Kerala)
- Influenza virus isolation and characterization
- Apex lab: ICMR-NIV Pune
- Data sharing with WHO for global influenza vaccine recommendations
- This network picked up human cases of Avian Influenza in WB in July 2021 (H5N1); March 2024 (H9N2); March 2025 (H5N1)
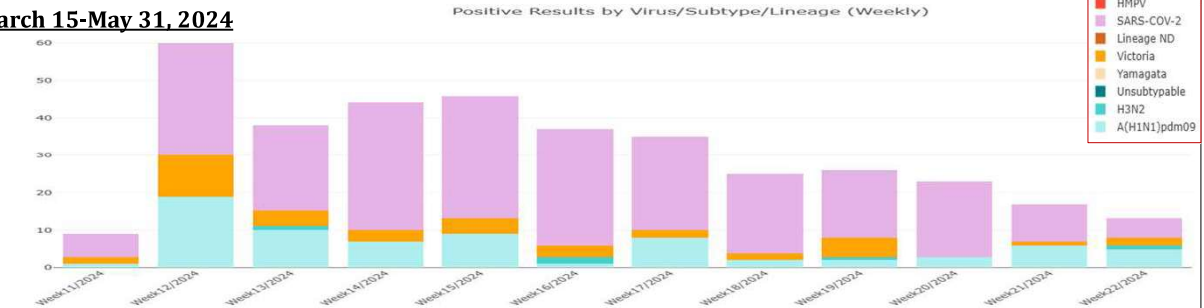
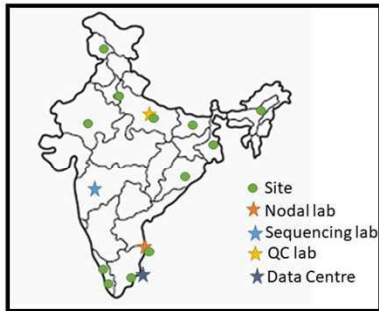Budget allocation: 30 cr
Ongoing
Funding source: ICMR and DHR

March 15-May 31, 2025

Positive Results by Virus/Subtype/Lineage (Weekly)

Legend:
- RSV
- NIPAH
- HMPV
- SARS-COV-2
- Lineage ND
- Victoria
- Yamagata
- Unsubtypable
- H3N2
- A(H1N1)pdm09

March 15-May 31, 2024

Positive Results by Virus/Subtype/Lineage (Weekly)
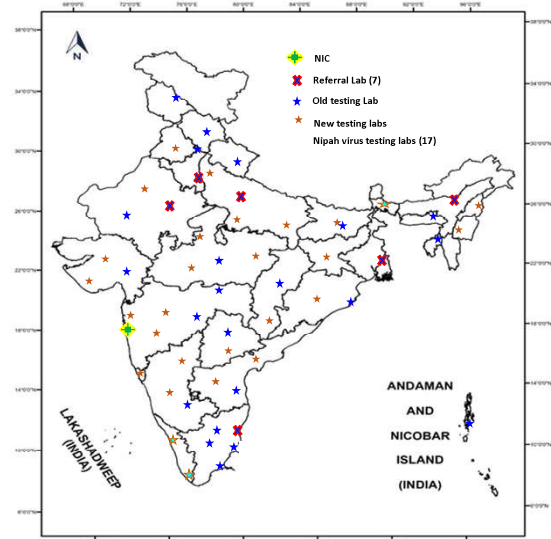
Acute Encephalitis Syndrome (AES) Surveillance

Surveillance Sites	
1.	JIPMER, Puducherry
2.	KGMU, Lucknow
3.	Gauhati Medical College, Guwahati
4.	KIPMER, Chennai
5.	AIIMS, Bhubaneshwar
6.	AIIMS, Kalyani
7.	AIIMS, Patna
8.	GMC, Trivandrum
9.	S.M.S. Jaipur
10.	GMC, Kozhikode
11.	ABVIMS & Dr RML Hospital, New Delhi
12.	SKIMS, Srinagar
Supporting sites	
13.	ICMR-NIV Pune(NGS)
14.	ICMR-NIE, Chennai (Data Mining)
Coordination: ICMR Hq	

Map legend:
- Site
- Nodal lab
- Sequencing lab
- QC lab
- Data Centre

Objectives:

- To determine the aetiological profile of AES in children and adults

- To detect unknown/novel pathogens by NGS

Total Budget: 12.63 cr
Duration: 1 year
Source: ICMR PM ABHIM funds

List of Pathogens (17):

Malaria, Japanese Encephalitis, Dengue, Scrub Typhus, Chikungunya, Measles, Herpes Simplex Virus, Varicella Zoster Virus, S. pneumoniae, H. influenzae, N. meningitidis, S. agalactae, Leptospira, Mycobacteria, Enterovirus, Nipah Virus and West Nile Virus

Other Syndromic Surveillance Programs being Initiated

- Acute Febrile Illness
- Acute Diarrhea
- Chandipura virus disease
  - Human surveillance: Serosurvey; AES and AFI surveillance (ICMR-NIE Chennai; 11 VRDLs and PHCs)
  - Vector & Rodent survey (ICMR-VCRC)
  - Animal survey: DAHD Gujarat & NIVEDI, Bengaluru
  - Animal model & Vaccine development: ICMR-NIV, Pune & ICMR-NARFBR, Hyderabad
  - Gujarat State Govt.
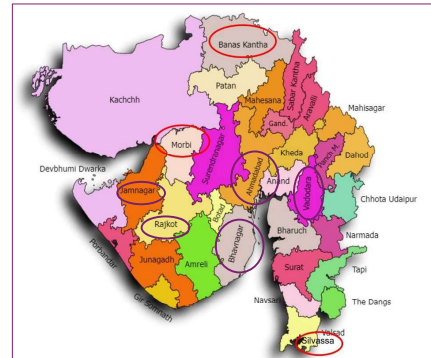
Infectious Disease Research & Diagnostic Laboratory Network
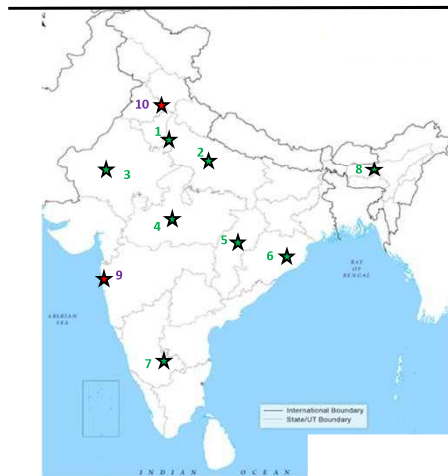
S.N.	IRDL sites
1	All India Institute of Medical Sciences, Delhi
2	King George's Medical University, Lucknow
3	All India Institute of Medical Sciences, Jodhpur
4	All India Institute of Medical Sciences, Bhopal
5	All India Institute of Medical Sciences, Raipur
6	All India Institute of Medical Sciences, Bhubaneswar
7	Bangalore Medical College and Research Institute, Bengaluru
8	Gauhati Medical College, Guwahati
9	Seth GS Medical College and King Edward Memorial Hospital, Mumbai
10	Post Graduate Institute of Medical Education and Research, Chandigarh

Network of ISO accredited referral level labs

- Syndromic surveillance of infectious diseases
- Outbreak investigation
- Performance evaluation of in-vitro diagnostics
- Biobanking of clinical samples and microbe strains
- Proficiency Testing panel preparation: EQA

Objective 3:
Development Medical Countermeasures

R&D on Medical Countermeasures

1. Kyasanur Forest Disease:

Vaccine:
- ➤ Joint vaccine development between ICMR-NIV Pune & Indian Immunologicals (funded by ICMR through CSR & PM-ABHIM)
- ➤ Adjuvanted candidate developed by IIL and tested in mice
- ➤ Two approaches: (i) Standard: process optimization at each step; (ii) Fast track: to complete preclinical development in 100 days
- ➤ Immunogenicity assessment, LD_{50} assessment and downstream optimization completed
- ➤ NoC (CT-10) to obtain DCGI permission to produce GMP grade material for Ph1 trial obtained
- ➤ Phase 1 protocol developed & soon to be submitted to CDSCO
- ➤ Efforts to procure Bonnett macaques are underway

Fund allocation by ICMR: Rs. 9.44 cr to IIL and Rs. 3 cr to ICMR-NIV, Pune

2. Nipah virus Disease:
- ➤ Monoclonals developed by three different partners: THSTI, Zydus Cadila and NIV, Pune
- ➤ Monoclonals from THSTI and Cadila have demonstrated neutralizing activity
- ➤ Animal studies compelted
- ➤ Both mAbs have demonstrated a prophylactic potential
- *(Funds allocated from PM-ABHIM funds)*

# R&D on Medical Countermeasures

3. Avian Influenza:

  ➢ ICMR is working with 4 companies for development of Avian Influenza vaccines through four different platforms: Recombinant, VLP, mRNA and subunit

4. Zika virus Disease:

  ➢ ICMR-IIL have signed MoA for initiation of Phase 1 clinical trial of the ZIKV vaccine available with IIL
  ➢ Trial is funded by ICMR

Objective 4:
Laboratory Strengthening, Training & Outbreak Investigation

National BSL-3 Laboratory Network
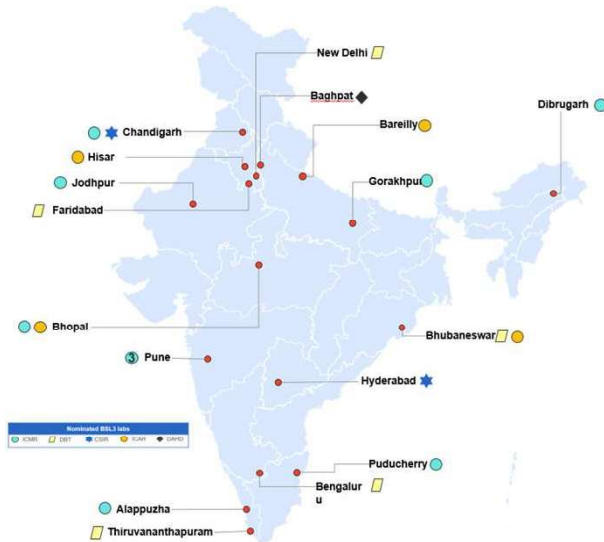
Aim- To undertake testing for priority Human, Animal and Environment pathogens in outbreak scenarios

Parent Organization	Nominated BSL3 labs
ICMR	8 (+2 Mobile BSL-3)
DBT	5
CSIR	2
DAHD	1
ICAR	4
Total	22

BSL-3 Network: Activities Undertaken

- All laboratories trained at ICMR-NIV Pune and ICAR-NIHSAD, Bhopal for Biosafety precautions while handing human, animal and environment samples

- Comprehensive list of 40 human and 15 animal pathogens developed after intense deliberations

- All 22 laboratories are being hand-held for diagnostics for procurement

- Dedicated budget released for maintenance, staff and diagnostics

- Compendium of SoPs developed

- BSL-3 laboratory assessment tool developed: can be used for internal/external evaluation

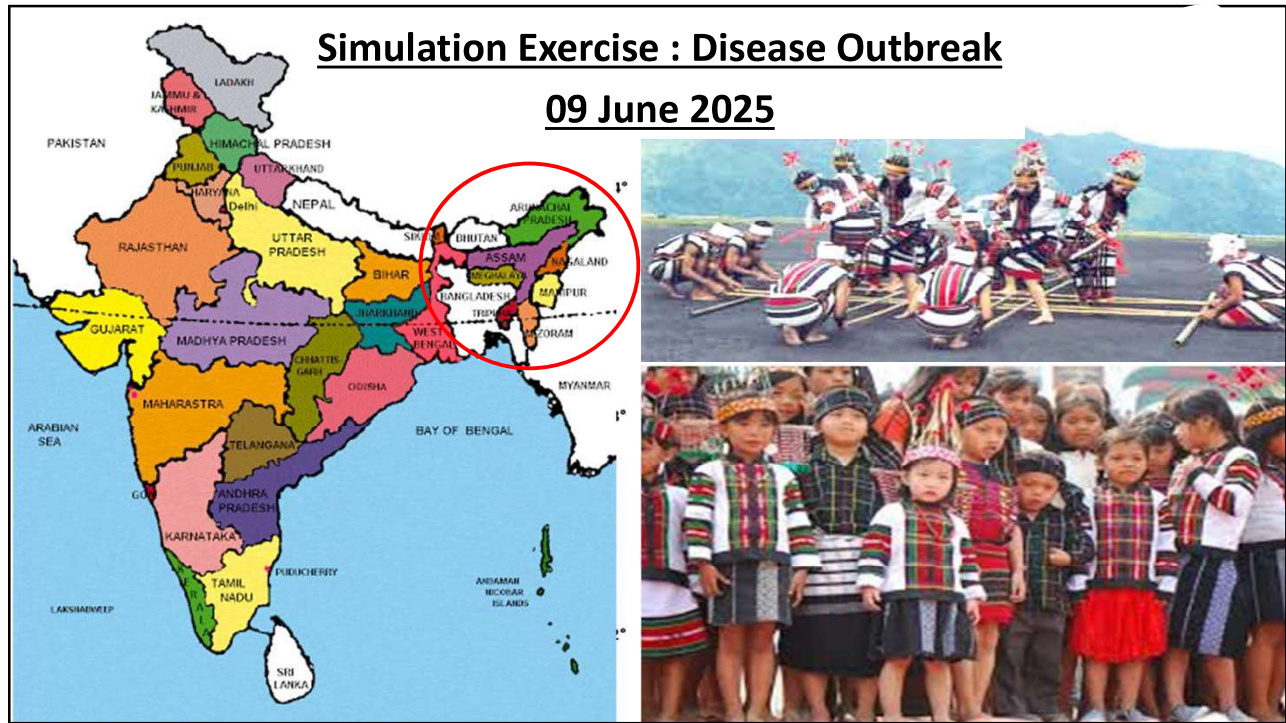- BSL-3 labs are a pivotal part of the mock drills

NOHM Website

- Common website creation to showcase work of all Departments
- ICMR/DHR has has created a webpage of the work

Weblink: https://www.icmr.gov.in/national-one-health-mission

Thank You

Annexure IX

Simulation Exercise : Disease Outbreak

09 June 2025

Background Information : Mizoram

- Southern most NE State, boundary with Bangladesh, Myanmar, Assam, Tripura & Manipur. Regular animal and human migration – Free Movement Regime (FMR).
- Hilly State with agrarian population, also known for pig farming. Capital - Aizawl.
- <u>Weather</u>. June temperatures max 30°C/min 23°C; rainfall average 317 mm; humidity – 90%.
- 8 districts, today's case study – Lunglei Distt.
- Lunglei well equipped District medical and veterinary services. BSL 3 Lab in Kohima.

Pig Farming : Domesticated

Inject 1

- Ms Dinpui (age 42) developed fever and cough, treated by local doctor, she has been rearing 2 pigs at home, pigs are healthy.
- 3 pig farmers from neighbouring Lawngtalai district also presented with fever, headache and altered level of consciousness.
- Give your immediate response.

Discussion / Expected Response

- Collection of samples; precautions, transportation.
- Case History – pets, humans, environment.
- District Surveillance; notification - State authorities (?)
- One health aspects – highlight inter dept/sectoral communication.
- Has any migrant population arrived recently? Contact tracing – challenges due to terrain and logistics.

Inject 2

- District hospital Lunglei, got 15 similar cases from nearby villages with symptoms of dizziness and nausea & vomiting, two patients fell unconscious and brought on stretcher travelling 5-7 kms on foot from villages in Lunglei and Lawngtlai, they were known to rear pigs.

- District Veterinary Hospitals got reports of death of two pigs from same villages around Lunglei and five pig deaths at Lawngtlai. Some of the pigs showed signs of respiratory symptoms, cough, trembling, twitching and muscle weakness & high fever.

- Some villagers who had recently arrived from Myanmar also informed of episodes of similar nature in Chin state of Myanmar (bordering Mizoram).

- Give your response.

Discussion/ Expected Response

- Case History – pets, humans, environment.
- Collection of samples – where sent for testing?
- Notify District/ State authorities, when will national response team be informed?
- One health aspects - Communication between Veterinary and district medical hospital.
- Has any migrant population arrived recently? Contact tracing - challenges

Inject 3

- District Veterinary Hospital Imphal West, Manipur reported of atypical encephalopathy from Emergency Call Centre (1962). Two deaths of pig farmers have been reported. (Note: Posterior Reversible Encephalopathy Syndrome (PRES) & Japanese encephalitis have been reported earlier also, in Manipur). Prominent media channels are doing investigative journalism!

- What is your response to the reports from Manipur? What coordination is envisaged with Mizoram (if any?); What will be the line of action of the Manipur State CMO & Veterinary Dept? what will be your advice to the Chief Secretary & State Health Minister?

Discussion/ Expected Response

- Need to establish and strengthen permanent One Health Committee.
- Conduct joint investigation and strategic communication within both States health and veterinary departments.
- Establish real-time reporting mechanism to receive reports from all district and village level surveillance.
- Risk mapping, alerting the Central NJORT team. Organise media briefings, who gives script?
- Warn Tripura, Assam, Meghalaya, Nagaland to report any such cases (lateral communication).
- Check stocks of PPE kits and masks; public awareness campaign (model to be followed without letting panic set in)

Visit North East India

THANK YOU

वर्ष १ ले, अंक ३ रा, प्रकाशक: पशुसंवर्धन विभाग, महाराष्ट्र राज्य

महापशुधन वार्ता

राष्ट्रीय वन हेल्थ अभियान अंतर्गत पहिली राज्य व केंद्र शासित प्रदेश यांची संयुक्त कार्यमोहिम दिल्ली येथे संपन्न

National One Health Mission (NOHM) अर्थात राष्ट्रीय वन हेल्थ/एकात्मिक आरोग्य अभियान अंतर्गत पहिली राज्य आणि केंद्र शासित प्रदेश यांचा सहभाग असलेली कार्यशाळा ८ जून २०२४ रोजी विज्ञान भवन, नवी दिल्ली येथे यशस्वीरित्या संपन्न झाली. ज्यामध्ये भारताच्या एकात्मिक आरोग्य दृष्टिकोनाला (Integrated One Health) बळकटी

देण्यासाठी सर्व संबंधित विभागांच्या सहयोगाचा आराखडा अंतिम करण्याची कार्यवाही पार पडली.

या कार्यशाळेचे अध्यक्षपद भारत सरकारचे प्रमुख वैज्ञानिक सल्लागार (PSA) प्रो. अजय सूद यांनी भूषविले. कार्यशाळेत राज्य सरकारी अधिकारी, सर्व भागधारक विभागांचे प्रतिनिधी आणि इतर एजन्सीसिह विविध भागधारक सहभागी झालेले होते. मा.

अध्यक्षांनी उद्घाटनपर भाषणात कार्यशाळेच्या दृष्टिकोन आणि या अभियानाच्या उद्दिष्टांना पुढे नेण्यात राज्य सरकारांची भूमिका महत्त्वाची असल्याचे सांगितले. आरोग्य आणि कुटुंबकल्याण मंत्रालयाच्या सचिव श्रीमती पुण्यसलिला श्रीवास्तव यांनी या उपक्रमाचे कौतुक करत राज्यांनी संसाधनांच्या संरेखनाद्वारे पायाभूत सुविधा मजबूत करणे गरजेचे ...

कार्यशाळेच्या अध्यक्षांनी उद्घाटनपर भाषणात कार्यशाळेच्या

असल्याचे स्पष्ट केले. आरोग्य संशोधन विभागाचे सचिव आणि भारतीय वैद्यकीय संशोधन परिषदेचे महासंचालक डॉ. राजीव बहल यांनी वन हेल्थ आव्हानांना तोंड देण्यासाठी बहु-क्षेत्रीय सहभाग महत्त्वाचा असून, याकरिता बहुक्षेत्रीय विकार वेधीय ओळखण्यासाठी सन्निरीक्षण करणे आणि विषाणुयुक्त अभ्यासासारख्या प्रतिकात्मक कवायतींद्वारे RRT व आंतरक्षेत्रीय समन्वय यांच्या तयारीची चाचणी करण्याचे महत्त्व अधोरेखित केले.

डॉ. सिंदुरा गणपती व पी.एस.ए. फेलो यांनी अभियानाच्या उद्दिष्टांचा आणि प्रशासन यंत्रणेचा आढावा सादर केला. यावेळी अभियानाच्या प्रशासकीय समितिच्यांवर चक्राकार पद्धतीने केरळच्या नामनिर्देशित गुजरात आणि प्रतिनिधींनी त्यांच्या राज्याच्या 'वनहेल्थ' उपक्रमांतर्गत प्रशासन, संस्थात्मक यंत्रणा, देखरेख प्रगती इत्यादी बाबींचे सादरीकरण केले. उद्घाटन सत्रादरम्यान, 'वनहेल्थ' मोहिमेसाठी युवा सहभाग कार्यक्रम आणि 'वनहेल्थ' उपक्रमांवर इंटराबई ...

राष्ट्रीय वन हेल्थ अभियान अंतर्गत पहिली राज्य व केंद्र शासित प्रदेश यांची संयुक्त कार्यमोहिम दिल्ली येथे संपन्न

National One Health Mission (NOHM) कार्यशाळेत पशुसंवर्धन विभागाकडून सहभागी झाले मा. डॉ. रामास्वामी एन., सचिव (पदुम) महाराष्ट्र शासन, कृषि, पशुसंवर्धन, दुग्धव्यवसाय विकास व मत्स्यव्यवसाय विभाग, मंत्रालय, मुंबई

यांचा शुभारंभ करण्यात आला. (https://www.psa.gov.in/oneHealthDashboar).

डॉ. रामास्वामी एन., सचिव (पदुम) महाराष्ट्र शासन, कृषी, पशुसंवर्धन, दुग्धव्यवसाय विकास व मत्स्यव्यवसाय विभाग, मंत्रालय, मुंबई आणि डॉ. शितलकुमार मुकणे, अतिरिक्त आयुक्त पशुसंवर्धन, पशुसंवर्धन आयुक्तालय, पुणे हे सहभागी झाले होते.

राष्ट्रीय रोगनियंत्रण केंद्र NCDC, राष्ट्रीय सुरक्षा समन्वय सचिवालय (NSCS), आर्मी मेडिकल कॉर्प्स (AMC), रिमाउंट व्हेटनरी कॉर्प्स (RVC) आणि राष्ट्रीय विषाणू विज्ञान संस्था (NIV) यांच्या रोगप्रदुर्भावाच्या परिस्थितीवर एक प्रतिरूप सरावाने कार्यशाळेचा समारोप झाला.

ୱାନ୍ ହେଲ୍ଥ ମିଶନ କର୍ମଶାଳାରେ ଓଡ଼ିଶାର ପ୍ରତିନିଧିତ୍ୱ

ଭୁବନେଶ୍ୱର,୯୬(ବ୍ୟୁରୋ): ନୂଆଦିଲ୍ଲୀସ୍ଥିତ ବିଜ୍ଞାନ ଭବନରେ ଆୟୋଜିତ ଜାତୀୟସ୍ତରୀୟ ୱାନ୍ ହେଲ୍ଥ ମିଶନ୍ କର୍ମଶାଳାରେ ଓଡ଼ିଶାରୁ ଡା. ଦୁର୍ଗାପ୍ରସାଦ ଦାସ ଓ ଡା. ଏସ୍. ପାର୍ଥସାରଥୀ ପ୍ରତିନିଧିତ୍ୱ କରିଛନ୍ତି। ଡା.ପାର୍ଥସାରଥୀ ଏବେ ଏଡିଆର୍ଆଇରେ ରିସର୍ଚ୍ଚ ଅଫିସର ଓ ଡା. ଦାସ ଓଡ଼ିଶା ପ୍ରାଣୀ ଚିକିତ୍ସା ଓ ପ୍ରାଣୀ ପାଳନ ନିର୍ଦ୍ଧେଶାଳୟରେ ଉପନିର୍ଦ୍ଧେଶକ (ରୋଗ ନିୟନ୍ତ୍ରଣ) ରୂପେ କାର୍ଯ୍ୟରତ ଅଛନ୍ତି। ଏହି କର୍ମଶାଳା ଜାତୀୟ ୱାନ ହେଲ୍ଥ ମିଶନ, କେନ୍ଦ୍ର ସରକାରଙ୍କ ପ୍ରଧାନ ବୈଜ୍ଞାନିକ ପରାମର୍ଶଦାତାଙ୍କ କାର୍ଯ୍ୟାଳୟ ଦ୍ୱାରା ଅନୁଷ୍ଠିତ ହୋଇଥିଲା। ଏଥିରେ ସମସ୍ତ ରାଜ୍ୟ ଓ କେନ୍ଦ୍ରଶାସିତ ଅଞ୍ଚଳ ସମେତ ବିଭିନ୍ନ ଜାତୀୟ ଓ ଅନ୍ତର୍ଜାତୀୟ ଅନୁଷ୍ଠାନର ପ୍ରତିନିଧିମାନେ ଯୋଗ ଦେଇ ମାନବ ସ୍ୱାସ୍ଥ୍ୟର ସର୍ବାଙ୍ଗୀନ ସୁରକ୍ଷା ନିମନ୍ତେ ବିବିଧ ମାର୍ଗଦର୍ଶିକା ପ୍ରସ୍ତୁତ କରିଥିଲେ।

पर्यावरण एवं जलवायु परिवर्तन विभाग, राजस्थान ✔
@DOECC_Rajasthan

A gathering of minds and expertise at the recent workshop in New Delhi organised by GoI, as #India 🇮🇳 #Progress towards a #sustainable and integrated approach to health challenges under the National #OneHealth Mission.
Let's s together 🤝 build #awareness for a Healthier tomorrow.

Workshop under the National One Health Mission
📅 9th June 2025

👤 Medical & Health Deptt. Rajasthan and 3 others

1:30 PM · Jun 10, 2025 · **93** Views

Office of Principal Scientific Advisor to GoI

The Office of Principal Scientific Adviser to Government of India organised the first State/UTs engagement workshop under the National One Health Mission

The Youth Engagement Program and Dashboard for One Health under the National One Health Mission (NOHM) were launched.

The NOHM dashboard being developed will serve as a one-stop repository of One Health initiatives by states, central ministries/departments and other agencies. The timely launch of the Youth Engagement Program will instil a fresh perspective for the mission's goals: PSA Prof. Sood

Posted On: 09 JUN 2025 8:25PM by PIB Delhi

The first State and Union Territory Engagement Workshop under NOHM concluded successfully on 9th June 2025, charting a collaborative path forward for strengthening India's integrated One Health approach. Chaired by Prof. Ajay Sood, Principal Scientific Adviser (PSA) to the Government of India, the workshop brought together a diverse array of stakeholders, including state government officials, representatives of all the stakeholder departments, and other agencies.

The workshop commenced with opening remarks from Prof. Ajay Sood, setting the vision for the workshop. He emphasised the pivotal role state governments play in advancing the mission's objectives. Ms. Punya Salila Srivastava, Secretary, Ministry of Health and Family Welfare, commended the initiative and stressed the need to align and leverage relevant resources to strengthen the state infrastructure. Dr. Rajiv Bahl, Secretary, Department of Health Research & Director General, Indian Council of Medical Research, underscored the critical importance of multi-sectoral engagement in tackling complex One Health challenges, the importance of syndromic surveillance and mock drills like the *Vishanu Yuddh Abhyaas* that tests the preparedness of rapid response teams and intersectoral coordination in the face of disease outbreaks. Dr. Sindura Ganapathi, PSA fellow, presented a brief overview of the mission's objectives and governance mechanism.

Representatives from the states of Gujarat and Kerala, nominated for the mission's governance committees (on a rotation basis), showcased their respective states' One Health activities, including governance, institutional mechanisms, surveillance progress and others.

During the inaugural session, PSA launched the Youth Engagement Program for One Health mission. This program is an initiative to actively engage with the youth of the nation through existing national platforms and state machinery to leverage their involvement in the mission. Additionally, a dashboard on One Health initiatives by states, central ministry/departments and multilaterals was launched and is accessible through the Office of PSA website (https://www.psa.gov.in/oneHealthDashboard). This dashboard is in development and currently hosts the various initiatives by the respective agencies.

The activities of the workshop were bifurcated into two major sessions wherein participants engaged in productive discussions across four vital themes integral to the mission viz. Governance & Policy (Chaired by Dr Renu Swarup), Surveillance Systems (Chaired by Dr N. K. Arora), Outbreak Investigation & Response (Chaired by Lt. Gen Dr Madhuri Kanitkar) and Capacity Building & Data Sharing (Chaired by Prof. Vijay Chandru). A planning session with states for One Health implementation was also chaired by Dr. Parvinder Maini, Scientific Secretary, Office of PSA. These sessions aimed to identify synergies, address existing challenges, and formulate actionable strategies for a more resilient and integrated approach to human, animal and environmental health across the states. Prof. Sood as a way forward called on all the states/UT's to consider creating their own One Health dashboards and websites and link it with the central dashboard/website. He further said that there should be focus on capacity building and courses/modules can be developed on platform like iGoT Karmyogi for One Health. He also empathized on the need of data standardisation, youth participation through One Health hackathons.

National Centre for Disease Control (NCDC), Indian Council of Medical Research (ICMR) and Department of Animal Husbandry and Dairying (DAHD) presented on the overarching programs in surveillance and collaborations with other agencies that strengthen the One Health approach in India. The workshop concluded with a simulation exercise on a disease outbreak situation. The activity was coordinated with NCDC, National Security Coordination Secretariat (NSCS), Army Medical Corps (AMC), Remount Veterinary Corps (RVC) and National Institute of Virology (NIV). Each group discussed on the presented outbreak scenario and came up with their directions for containment, management and response using the One Health approach.

During the workshop, a poster session was organised wherein states/UTs, knowledge partners and multilateral organisations showcased the One Health initiatives they have undertaken. The workshop saw participation from representatives from stakeholder ministries/ departments. The event witnessed the participation from around 28 state/UTs, other knowledge partners like multilaterals and academic institutes.

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MJPS/ST

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Read this release in: Urdu , Hindi

National One Health Mission Secretariat at O/o PSA (*L to R*): Dr Darshan N, Dr Nidhi Thakur, Dr Sangeeta Agarwal, Dr Sindura Ganapathi, Ms. Arundhati Mohanty, Dr Dibyayan Deb, Ms. Richa Chaturvedi

Office of the Principal Scientific Adviser to the Government of India

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