



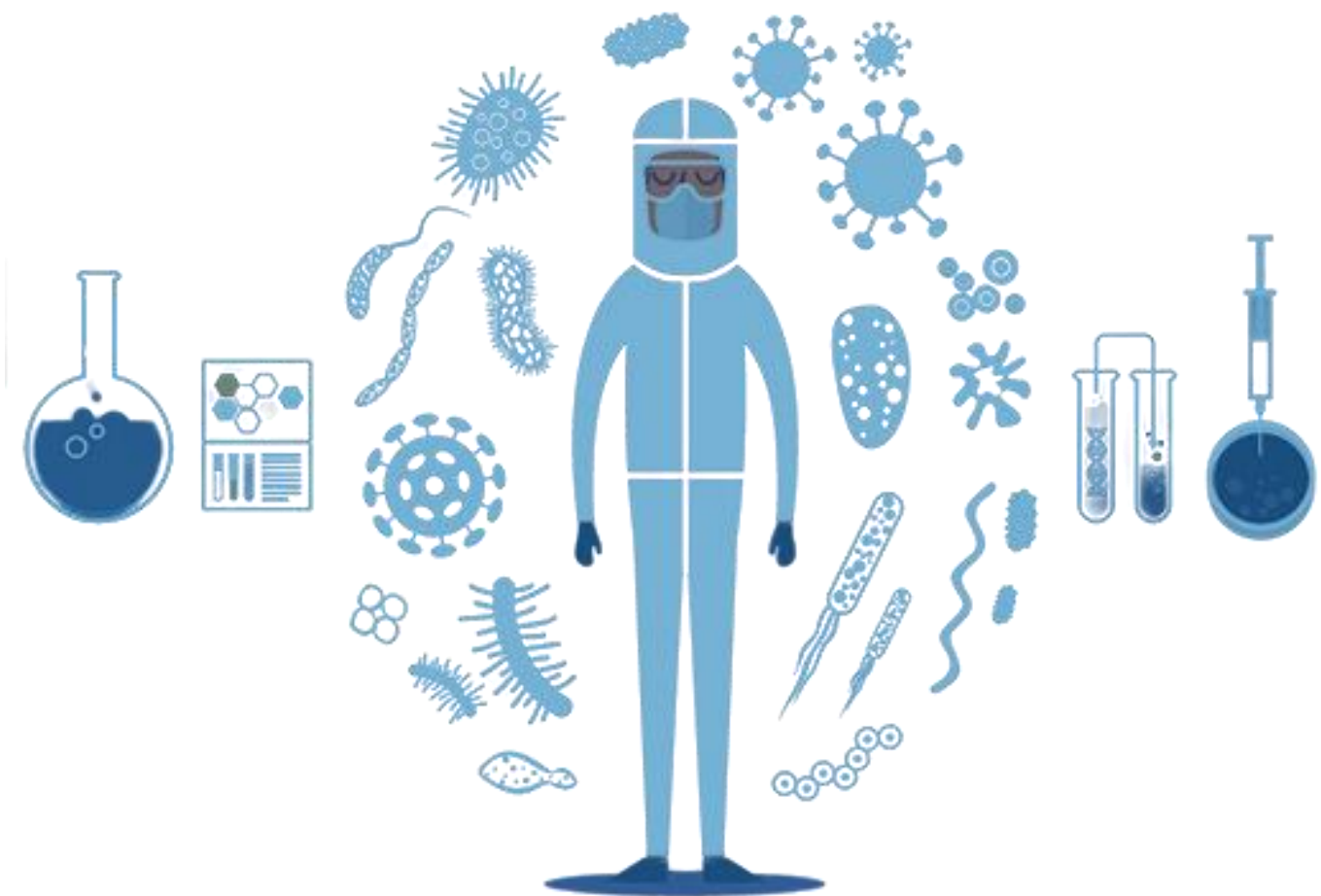
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NIV
NATIONAL INSTITUTE
OF VIROLOGY

Training on
Biosafety and Biosecurity
for handling high-risk pathogens in
BSL-3 laboratory



Duration:

April 8-12 & April 15-19, 2024



Organized By:

Maximum Containment Facility,
ICMR-National Institute of Virology (NIV), Pune



Venue:

Conference Hall, First floor,
ICMR-NIV, MCC, Pashan, Pune



Coordinated By:

Indian Council of Medical Research (ICMR),
New Delhi

OVERVIEW

Under the National One Health Mission of PM-ABHIM, the Indian government recently initiated the establishment of a nationwide network of BSL-3 laboratories for outbreak investigation and pandemic preparedness. The primary goal of this initiative is to establish a network of easily accessible BSL-3 labs throughout India that can handle samples from disease outbreaks in human, livestock, wild animals, and aquaculture. The existing BSL-3 laboratories in the country are primarily research-focused, with limited capacity for outbreak investigations. Considering this, biosafety and biosecurity trainings for the BSL-3 staff were conducted to enhance the capacity and preparedness of the high-containment laboratories to respond to disease outbreaks in the human, animal, and environmental domains. The **two sets of the five-day training** were conducted by the scientists and technical team of the Maximum Containment Facility of ICMR-National Institute of Virology, Pune, coordinated by the Indian Council of Medical Research, New Delhi during **April 8-12, 2024 and April 15-19, 2024**. The training program was scenario-based, with different simulation exercises, table-top exercises, and hands-on activities. A total of 42 persons from 23 institutions participated in the training program.

The participating laboratories include

1. Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER), Puducherry
2. ICMR-Regional Medical Research Centre (RMRC), Dibrugarh, West Bengal
3. Post Graduate Institute of Medical Education & Research (PGIMER), Chandigarh
4. ICMR-National Institute of Virology (NIV), Pune, Maharashtra
5. ICMR-National Institute of Virology (NIV), Kerala Unit, Alappuzha Kerala
6. ICMR-National Institute of Translational Virology and AIDS Research (NITVAR), Pune, Maharashtra; Former ICMR-NARI, Pune
7. Translational Health Science and Technology Institute (THSTI), Faridabad, Haryana
8. International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi
9. Institute of Life Sciences (ILS), Bhubaneswar, Odisha
10. Institute for Stem Cell Science and Regenerative Medicine (InSTEM), Bangalore, Karnataka
11. Rajiv Gandhi Centre for Biotechnology (RGCB), Thiruvananthapuram, Kerala

12. CSIR-Institute of Microbial Technology (IMTECH), Chandigarh
13. CSIR-Centre for Cellular & Molecular Biology (CCMB), Hyderabad, Telangana
14. National Centre for Veterinary Type Cultures (NCVTC)/ National Research Centre on Equines, Hisar, Haryana
15. National Institute of High Security Animal Diseases (NIHSAD), Bhopal, Madhya Pradesh
16. Centre for Animal Disease Research and Diagnosis (CADRAD), ICAR-IVRI, Izatnagar, Uttar Pradesh
17. Chaudhary Charan Singh National Institute of Animal Health (CCSNIAH), Baghpat, Uttar Pradesh
18. All India Institute of Medical Sciences (AIIMS), Jodhpur, Rajasthan
19. All India Institute of Medical Sciences (AIIMS), Bhopal, Madhya Pradesh
20. King George's Medical University (KGMU), Lucknow, Uttar Pradesh
21. Sawai Man Singh Medical College (SMSMC), Jaipur, Rajasthan
22. National Centre for Disease Control (NCDC), New Delhi
23. Indian Council of Medical Research (ICMR), New Delhi

Summary of Day-1

Both the sets of the five-day training commenced at 08:45 am, with the registration of all the participants. After the registration, the pre-training assessment was conducted. **Dr. Naveen Kumar**, Director, ICMR-NIV, Pune, welcomed all of the participants and the trainers after the completion of the pre-training assessment. He briefed the need for the BSL3 laboratory network for pandemic preparedness and how these laboratories can go hand in hand in achieving the motto of pandemic preparedness under the One Health mission. After the formal welcoming of the participants, **Dr. Pragya D. Yadav** (Scientist F, Group Leader, maximum Containment Laboratory and DIC, NIOH, Nagpur) introduced the training course and the need for this training particularly emphasizing the importance of biosafety practices while handling and transporting the clinical samples. The key messages were delivered virtually by **Dr. Rajiv Bahl**, Secretary DHR and DG, ICMR, and **Prof. Ajay Kumar Sood**, Principal Scientific Advisor to GOI. Following this, the participants and the trainers from the ICMR-NIV, Pune have introduced themselves.

Dr. Nivedita Gupta (Scientist-G and Head, CD, ICMR New Delhi) briefed the **role of the BSL-3 laboratories network for pandemic preparedness** and the budget allocation and the utilization of allocated budgets for different purposes like minor repairs, reagents, etc. She emphasized that funds allotted to each laboratory may only be utilized for strengthening, not for creating a stand-alone facility. She also clarified the queries by participants related to budget utilization. **Dr. Himanshu Chauhan** (Joint director & Nodal officer, IDSP, NCDC, New Delhi) has taken a lecture on **“Surveillance during Outbreak: An Integrated Digital Data System”** and discussed with the participants about their data management/reporting to the IDSP. After this digital surveillance lecture, Dr. Monil Singhai (Joint Director & Head, Zoonosis Division, NCDC, New Delhi) explained the **Basics of the establishment of the BSL3/4 laboratory** and also briefed about the guidelines and the risk mitigation strategies to be followed for the BSL3/4 laboratories.

The afternoon session started with presentations by all the participant laboratories in the prescribed format (with a short video of the laboratory) for assessing the current status of the laboratories in handling high-risk pathogens. During the presentation, there was an **open discussion** to figure out the laboratories' strengths and weaknesses along-with the future opportunities to modifications for handling high risk pathogens.

The afternoon session ended with **Dr. Rima Sahay** (Scientist C, Maximum Containment Laboratory, ICMR-NIV, Pune) **summarizing the information presented by the laboratories**, and the points that require further discussion were noted (**annexures- A and B**). The first day of the program ended with the distribution of hard copies of the excel sheet containing laboratory information, which had been updated with a few extra questions and required submission by the participating laboratories the next day.

Summary of Day-2

The second day of the training program commenced with a **Recap and Revision** led by Dr. Sahay and Dr. Deepak Patil (Scientist-D, NIOH Nagpur) of the topics learned on Day 1 of the program.

Dr. Pragya D. Yadav gave the opening lecture on Day 2 on the topic of "**Emerging/Re-emerging diseases and Biosafety concerns.**" She explained in detail various emerging and re-emerging diseases. She addressed participant questions about the biosafety concern.

After the lecture, a **hands-on group activity** was conducted to assess the safe working in the biological safety cabinets (BSCs) by the participants. The observers for each team noted the points and summarized them. The procedures to be followed while handling a high-risk pathogen in the biosafety cabinet were then explained to each team through a **video on safe working in BSCs.**

After the group activity on safe working in BSC, **Dr. Ashwin Raut** (Principal Scientist, ICAR-NIHSAD, Bhopal) has taken a lecture on **Recommended practices for advancing biosafety while working in the Animal Biosafety level-3 [ABSL-3] laboratory.** He explained many biosafety procedures that ABSL3 must adhere to and briefed all the biosafety practices to be followed in a containment facility.

The afternoon session started with a lecture by **Er. Khare** (Principal Technical Officer, Engineering Support) on "**Briefing about the engineering aspects of BSL-3 Laboratory**". He briefed about the HEPA, HVAC, equipment, and major installations. He explained in detail the working principle of HEPA filters and different types of Biosafety cabinets and their uses in different situations. Additionally, he described the team's real-world challenges and the mitigating measures they took. All the participants clarified their doubts regarding the engineering aspects. This lecture was followed by a **quiz section as group activity** related to HVAC system.

After the session on the engineering aspects, a **scenario-based spill management** (both inside and outside the BSC) activity was performed by different teams and was assessed by the observers assigned to each team. Then a **spill management video** was shown and explained all the steps that need to be followed sequentially.

The next session was on **scenario-based group activity on medical emergencies and management.** Each team was given different scenarios to perform like fire, earthquake, needle stick injury, and cardiac arrest of the person working inside the containment laboratory. All the scenarios were explained in detail after the performance by each group by **Dr. Sahay and demonstrated the use of AED in an emergency.** The ICMR guidelines- annexures- criteria for BSL3 laboratory, self-assessment of Biosafety, and format for BSL3 -Basic

laboratory safety survey were distributed. The second day of the program ended with the prize distribution to the team who performed well in this scenario-based group activity.

Summary of Day-3

The third day of the training program commenced with '**Recap and Revision**' led by Dr. Sahay, Dr. Anita Shete (Scientist-E, Maximum Containment Facility, ICMR-NIV, Pune), and Dr. Patil on the topics learned in Day 2 of the program.

The first lecture of Day 3 was given by **Dr. Rajlaxmi Jain** (Technical Officer, Maximum Containment Facility, ICMR-NIV, Pune). She briefed on the '**Regulatory framework for sample packaging and transport: global and national guidelines.**' This was followed by a **demonstration of the Standard Triple Packaging system for sample packaging and transport** by Mrs. Savita Yadav and Dr. Rajlaxmi Jain. After the demonstration session, there was a **scenario-based group activity** on the standard triple packaging system for sample packaging and transport. Each team was given a different scenario to perform and the performance was evaluated based on the coordination among team members, the shipment agency, and the biosafety and biosecurity practices followed while packing the clinical specimens.

The next lecture was given by **Dr. Rjalakshmi Viswanathan** (Scientist E & Group Leader, Bacteriology group) on "**Exploring the invisible threat in the environmental microbiological realm**". She briefed the life cycles of different bacterial pathogens that can cause harm to both humans and animals. Some of the participants also shared their experiences while working on specific bacterial pathogens.

The afternoon session commenced with the **scenario-based and table-top group activity on Risk Assessment** related to Biosafety & Biosecurity. After the group activity, there was a discussion and briefing on risk assessment.

The third-day program ended with a **visit of the participants to the Building Management System (BMS)** of the BSL-3 facility by the engineering support team.

Summary of Day-4

The fourth day of the training program commenced with '**Recap and Revision**' led by Dr. Sahay, Dr. Shete, and Dr. Patil on the topics learned in Day 3 of the program.

The first lecture of Day 3 was given by **Dr. Jayati Mullick** (Scientist-F & Group Leader, Polio Virus Group, ICMR-NIV, Pune) on **Administrative management & maintenance of the BSL-3 laboratory** followed by a **group activity on discussion on equipment** used for Decontamination procedures and SOP followed by site visit; Entry-exit, pass-box, autoclave, Biological Liquid Effluent Decontamination (BLED). The next lecture was by Dr. Shete about **Biosafety and good laboratory practices (GLP)**.

The afternoon session started with the **demonstration on GLP / QMS/ hands-on for the diagnosis of high-risk pathogens** by Dr. Shete and Mrs. Savita Patil (Technical Officer, Maximum Containment Facility, ICMR-NIV, Pune). The **working principle of the point-of-care assay** was explained in detail and demonstrated the PoC to the participants by the ICMR-NIV team. The day 4 ended with the feedback from the participants.

Summary of Day-5

The fifth day of the training program commenced with '**Recap and Revision**' led by Dr. Shete, Dr. Sahay, and Dr. Deepak Patil on the topics learned in Day 4 of the program.

The first lecture of Day 5 was given by **Dr. D. T. Mourya** (ICMR Chair for Virology and Zoonoses) on **Bio-risk management and current issues** followed by a **demonstration and Hands-on training on the Proper uses of Personal Protective Equipment (PPE) for working in BSL-3 lab.**

After the group activity, **Brig MM Ramachandra [Retd.]**, (Director, National Security Council Secretariat, GOI) delivered talk on on **Biological Threats: An Indian Perspective.**

The afternoon session started with a **table top group activity on outbreak scenarios related to one health.** Different teams performed their assigned group activity. A post-training assessment was conducted after completing all the sessions. Feedback forms were collected from each participant regarding the conduction of the training program, the areas that need improvement, or more thrust.

The valedictory remarks were given by **Lt Gen. Madhuri Kanitkar (Retd.)**, Vice Chancellor, MUHS Nashik, **Dr. Nivedita Gupta**, Scientist-G & Chief CD, ICMR New Delhi, **Dr. Sindura Ganapathi**, Visiting PSA Fellow, One Health Mission, GOI and Brig MM Ramachandra [Retd.]. The participants from different laboratories gave feedback and shared their experiences during the training. The **closing remarks** were given by Dr. Naveen Kumar, Director, ICMR-NIV, Pune, and the certificates were distributed to the participants, resource persons, and support staff. Dr. Pragya Yadav gave a **vote of thanks** to conclude the training program.

DAY-WISE PROGRAM AGENDA

[April 8-12, 2024 and April 15-19, 2024] Day 1

[09:00 am] to [09:15 am]	Registration of participants [Dr. Rima R Sahay, Scientist-C, ICMR-NIV Pune]
[09:15 am] to [09:45 am]	Pre-test assessment for the training [Dr. Deepak Y Patil, Scientist-B, ICMR-NIV, Pune]
[09:45 am] to [09:50 am]	Welcome address: [Dr. Naveen Kumar, Director, ICMR-NIV, Pune]
[09:50 am] to [09:55 am]	Introduction of training course- [Dr. Pragya D Yadav, Scientist-F & Group Leader BSL-4 facility, ICMR-NIV Pune & Director-in-Charge, National Institute of One Health, Nagpur]
[09:55 am] to [10:05 am]	Message from the Secretary DHR and Director General, ICMR [Dr. Rajiv Bahl]
[10:05 am] to [10:15 am]	Message from Principal Scientific Advisor to GOI [Prof. Ajay Kumar Sood]
[10:15 am] to [10:30 am]	Introduction of participants and teams from ICMR-NIV, Pune
[10:30 am] to [10:45 am]	Tea break
[10:45 am] to [11:15 am]	Role of BSL-3 laboratories network for pandemic preparedness [Dr. Nivedita Gupta, Scientist-G & Chief CD, ICMR, New Delhi]
[11:15 am] to [01:30 pm]	Presentation by the participating laboratories [15 min for each]
[01:30 am] to [02:00 pm]	Lunch break
[02:00 pm] to [02:30 pm]	Surveillance during outbreak: An integrated digital data system [Dr. Himanshu Chauhan, Joint director & Nodal officer, IDSP, NCDC, New Delhi]
[02:30 pm] to [03:00 pm]	Basics of establishment & operations of BSL-3 [Dr. Monil Singhai, Joint Director & Head, Zoonosis Division, NCDC, New Delhi]
[03:00 pm] to [03:30 pm]	Travel and admin related documentation
[03:30 pm] to [05:15 pm]	Group Activity-1: Discussion on the assessment of the participating laboratories by ICMR NIV, Pune team <i>[Tea will be served on the table]</i>
[05:15 pm] to [05:30 pm]	Wrap up- Day-1 and Feedback from participants

[April 8-12, 2024 and April 15-19, 2024] Day 2

[09:30 am] to [10:15 am]	Emerging/Re-emerging diseases and Biosafety concerns [Dr. PD Yadav]
[10:15 am] to [12:15 pm]	<p>Working with the various types of Biological Safety Cabinets (BSCs) [20 min] Group Activity-2: Video on safe working in BSC with Discussion [5 min] Discussion [20 min] [ICMR-NIV, Pune team: Er. Ajay Khare, Principal TO; Er. Mayur Mohite, TO; Dr. Anita M Shete, Scientist-E; Dr. RR Sahay; Dr. DY Patil; Dr. Sreelekshmy Mohandas, Scientist-C]</p> <p style="text-align: right;"><i>[Tea will be served on the table]</i></p>
[12:15 pm] to [01:00 pm]	<p>Recommended practices for advancing biosafety while working in Animal Biosafety level-3 [ABSL-3] laboratory. [Dr. Ashwin Raut, Principal Scientist, ICAR-NIHSAD Bhopal]</p>
[01:00 pm] to [01:30 pm]	Lunch break
[01:30 pm] to [02:30 pm]	<p>Briefing about the engineering aspects of BSL-3 Laboratory [HVAC, HEPA, Equipment Validation, Major installations] [40 min] [Er. A Khare] Group Activity-3: Video on HEPA Filter [5 min] Discussion [15 min] [ICMR-NIV, Pune team: Er. A Khare; Dr. DY Patil; Dr. RR Sahay]</p>
[02:30 pm] to [03:30 pm]	<p>Group Activity-4: Spill management - Participant laboratories to perform - Spills inside [15 min] Outside BSC [15 min] Video of spill management and Discussion [30 min] [ICMR-NIV, Pune team: Dr. AM Shete; Dr. DY Patil; Dr. RR Sahay; Dr. S Mohandas]</p>
[03:30 pm] to [05:30 pm]	<p>Group Activity-5: Medical emergencies and management Four scenarios-based activities- Participant laboratories to perform. Video and Discussion after each activity [ICMR-NIV, Pune team: Dr. RR Sahay; Dr. DY Patil; Dr. AM Shete; Dr. S Mohandas]</p> <p style="text-align: right;"><i>[Tea will be served on the table]</i></p>
[05:30 pm] to [05:45 pm]	Wrap up- Day-2 and Feedback from participants

[April 8-12, 2024 and April 15-19, 2024] Day 3

[09:15 am] to [10:00 am]	Recap and Revision of Day-2 [ICMR-NIV, Pune team: Dr. RR. Sahay; Dr. DY Patil]
[10:00 am] to [10:30 am]	Lecture on Regulatory framework for sample packaging and transport – Global & National Guidelines [Dr. Rajlaxmi Jain, TO, ICMR-NIV, Pune]
[10:30 am] to [11:00 am]	Demonstration of Standard Triple Packaging System for sample transport – Hands-on [ICMR-NIV, Pune team: Mrs. Savita Patil, TO; Dr. R Jain] <i>[Tea will be served on the table]</i>
[11:00 pm] to [12:20 pm]	Group Activity-6: Four scenarios-based activities- Participant laboratories to perform [ICMR-NIV, Pune team: Dr. RR Sahay; Dr. DY Patil; Dr. AM Shete; Dr. S Mohandas; Dr. R Jain; Mrs. S Patil]
[12:20 pm] to [01:00 pm]	Exploring the invisible threat in environmental microbiological realm [Dr. Rajlaxmi Viswanathan, Scientist-E & Group Leader, Bacteriology Department, ICMR-NIV, Pune]
[01:00 pm] to [01:30 pm]	Lunch break
[01:30 pm] to [03:00 pm]	Group Activity-7: Risk Assessment related to Biosafety & Biosecurity Four scenarios-based activities - Participant laboratories to perform [ICMR-NIV, Pune team: Dr. RR Sahay; Dr. DY Patil; Dr. AM Shete; Dr. S Mohandas]
[03:00 pm] to [04:30 pm]	Discussion and briefing on risk assessment [ICMR-NIV, Pune team: Dr. RR Sahay; Dr. DY Patil; Dr. AM Shete; Dr. S Mohandas] <i>[Tea will be served on the table]</i>
[04:30 pm] to [05:30 pm]	Visit to Building Management System of BSL-3 laboratory [ICMR-NIV, Pune team: Er. A Khare; Mr. Dinesh K Singh, Sr Tech-II]
[05:30 pm] to [05:45 pm]	Wrap up- Day-3 and Feedback from participants

[April 8-12, 2024 and April15-19, 2024] Day 4

[09:15 am] to [10:00 am]	Recap and Revision of Day-3 ICMR-NIV, Pune team: Dr. RR Sahay; Dr. DY Patil; Dr. AM Shete]
[10:00 am] to [11:00 am]	Administrative management & maintenance of BSL-3 laboratory [Dr. Jayati Mullick, Scientist-F & Group Leader, Polio Virus Group, ICMR-NIV, Pune] <i>[Tea will be served on the table]</i>
[11:00 am] to [12:30 pm]	Group Activity-8: Discussion on equipment used for Decontamination procedures and SOP followed by site visit <ul style="list-style-type: none"> • Entry-Exit • Pass-box • Autoclave • Biological Liquid Effluent Decontamination • Shredder] [ICMR-NIV, Pune team: Dr. RR Sahay; Dr. DY Patil; Mr. DK Singh, Er. A Khare; Dr. J Mullick]
[12:30 pm] to [01:30 pm]	Biosafety and good laboratory practices [GLP] [ICMR-NIV, Pune team: Dr. AM Shete; Mrs. S Patil]
[01:30 am] to [02:00 pm]	Lunch break
[02:00 pm] to [05:00 pm]	Group Activity-9: Demonstration on GLP / QMS/ hands-on for diagnosis of high-risk pathogen [ICMR-NIV, Pune team: Dr. AM Shete; Mrs. S Patil] <i>[Tea break in between the activity]</i>
[05:00 pm] to [05:30 pm]	Demonstration of Point of Care assay [ICMR-NIV, Pune team: Dr. AM Shete; Mrs. S Patil]
[05:30 pm] to [05:45 pm]	Wrap up Day-4 and Feedback from participants

[April 8-12, 2024 and April 15-19, 2024] Day 5

[09:00 am] to [09:30 am]	Recap and Revision of Day-4 [ICMR-NIV, Pune team: Dr. RR Sahay; Dr. DY Patil]
[09:30 am] to [10:10 am]	Bio-risk management and current issues [Dr. Devendra T. Mourya, ICMR Chair for Virology and Zoonoses]
[10:10 am] to [12:30 pm]	Group Activity-10: Demonstration and Hands on training on Proper uses of Personal Protective Equipment for working in BSL-3 lab [ICMR-NIV, Pune team: Dr. RR Sahay; Dr. DY Patil; Dr. AM Shete; Mr. Deepak Mali, Tech; Dr. R Jain] <i>[Tea will be served on the table]</i>
[12:30 pm] to [01:00 pm]	Biological threats: An Indian Perspective [Brig MM Ramachandra [Retd.], Director, National Security of Council Secretariat, GOI.]
[01:00 pm] to [01:30 pm]	Lunch break
[01:30 pm] to [3:30 pm]	Group Activity-11: Outbreak scenarios related to one health: Participant laboratories to perform [ICMR-NIV, Pune team: Dr. PD Yadav; Dr. AM Shete; Dr. RR Sahay; Dr. S Mohandas; Dr. DY Patil] <i>[Tea will be served on the table]</i>
[03:30 pm] to [04:15 pm]	Wrap up Day-5 and feedback of Day-5 [5 min] Post-training assessment [30 min] [Dr. R Jain] Feedback form [5 min]
[04:15 pm] to [05:15 pm]	Valedictory Function [60 min] Feedback from Participants [10 min] Valedictory Remarks by: <ul style="list-style-type: none"> • Lt Gen. Madhuri Kanitkar (Retd.), Vice Chancellor, MUHS Nashik [10 min]. • Dr. Nivedita Gupta, Scientist-G & Chief CD, ICMR New Delhi [10 min]. • Dr. Sindura Ganapathi, Visiting PSA Fellow, One Health Mission, GOI [10 min] Closing remarks by : <ul style="list-style-type: none"> • Dr. Naveen Kumar, Director, ICMR-NIV Pune [10 min] Distribution of certificates [8 min] Vote of thanks [Dr. Pragya D Yadav] [2 min]

LIST OF PARTICIPANTS FOR THE TRAINING [APRIL 8-12, 2024]

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16	Dr. Archana Upadhyay Kadam	Project Manager- Scientific, ICMR HQ	7249290486	upadhyayarchana676@gmail.com
17	Mr. Sumit Shukla	Technical Staff	7509212032	shuklasumit465@gmail.com
18	Mr. Padam Singh	Research Assistant	9529299810	padambhati1994@gmail.com
19	Dr. Kangjam Rekha Devi	Scientist F, ICMR-RMRC, Dibrugarh	7838218708	krekha75@yahoo.co.in
20	Dr. Anoop Velayudhan	Scientist E, ICMR-HQ, New Delhi	7011980495	anoop.vel@icmr.gov.in

List of Invited Speakers and Resource Persons for training

Invited Speakers

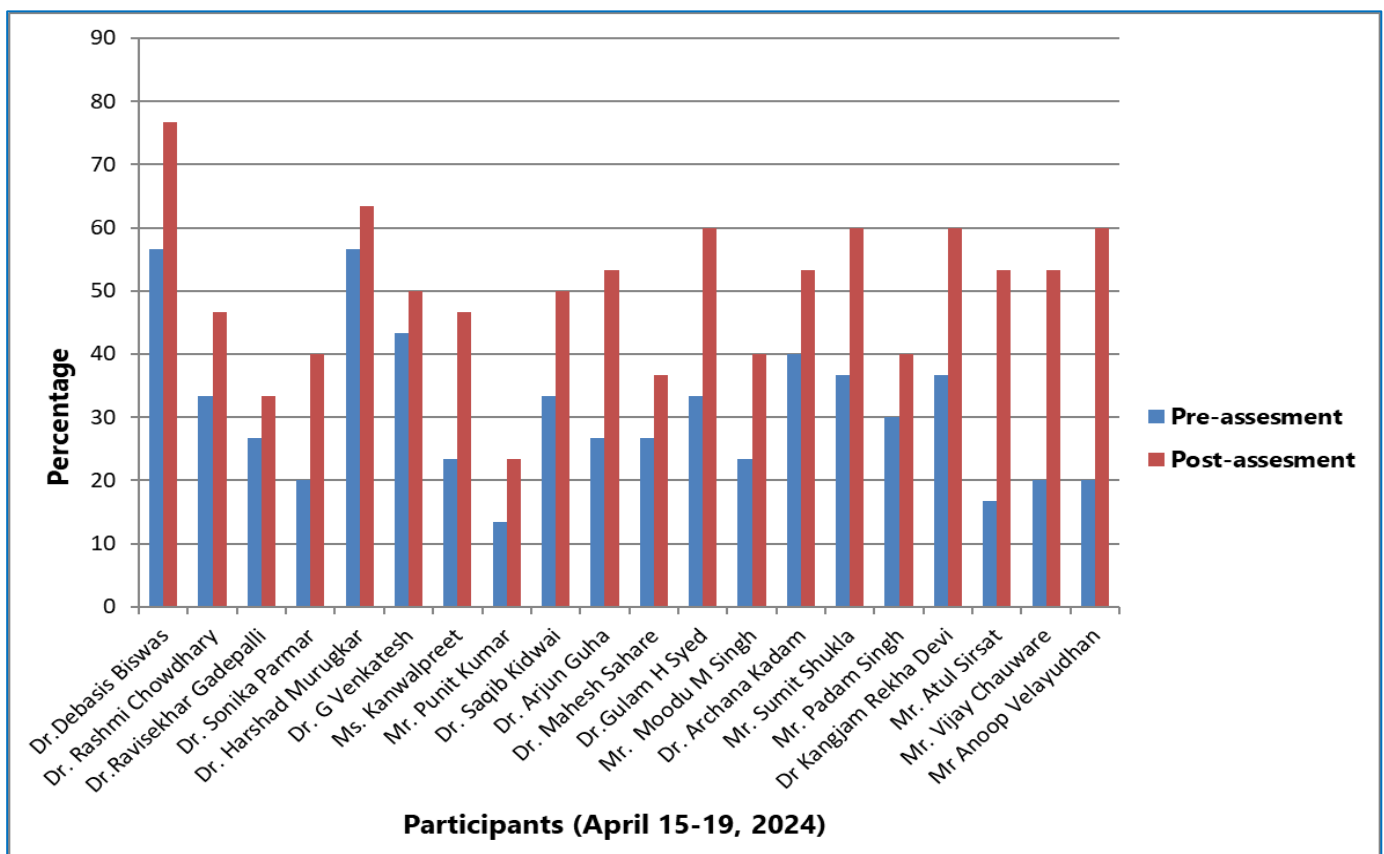
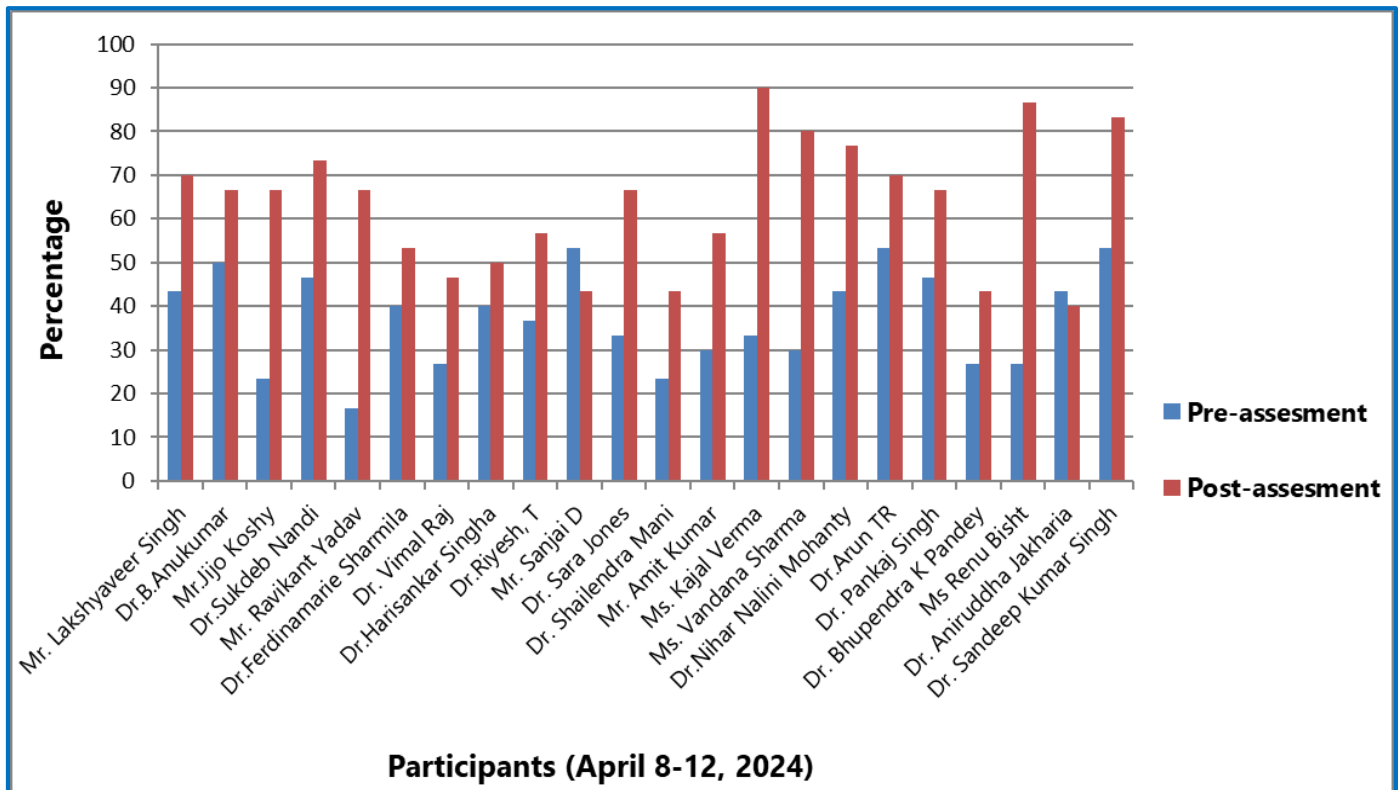
Invited speakers	Designation	Affiliation
Brig. MM Ramachandra [Retd.]	Director	National Security of Council Secretariat, New Delhi
Dr. Himanshu Chauhan	Joint Director and Nodal Officer, IDSP	National Center for Disease Control, New Delhi
Dr. Devendra T. Mourya	ICMR Chair for Virology and Zoonoses	ICMR New Delhi
Dr. Nivedita Gupta,	Scientist-G & Chief CD	ICMR New Delhi
Dr. Ashwin Raut	Principal Scientist	ICAR-NIHSAD Bhopal
Dr. Monil Singhai	Joint Director & Head	Zoonosis Division, National Center for Disease Control, New Delhi
Dr. Jayati Mullick	Scientist 'F' & Group Leader	Polio Virus Group & High Containment Facility, ICMR-NIV, Pune
Dr. Rajlakshmi Viswanathan	Scientist 'E' & Group Leader	Bacteriology group, ICMR-NIV, Pune

Resource Persons

Name of Resource Person	Designation	Affiliation
Dr. Pragya D. Yadav	Scientist 'F' & Group Leader and Director-in-Charge	Maximum Containment Facility, ICMR-NIV, Pune & Director-in-Charge National Institute of One Health, Nagpur
Dr. Anita Shete-Aich	Scientist 'E'	Maximum Containment Facility, ICMR-NIV, Pune
Dr. Rima R. Sahay	Scientist 'C'	Maximum Containment Facility, ICMR-NIV, Pune
Dr. Deepak Y. Patil	Scientist 'B'	Maximum Containment Facility, ICMR-NIV, Pune
Dr. Sreelekshmy Mohandas	Scientist 'C'	Maximum Containment Facility, ICMR-NIV, Pune
Er. Ajay Khare	Principal Technical Officer [Engineering Support]	Maintenance Department, ICMR-NIV, Pune
Dr. Rajlaxmi Jain	Technical Officer-B	Maximum Containment Facility, ICMR-NIV, Pune
Mrs. Savita Patil	Technical Officer-B	Maximum Containment Facility, ICMR-NIV, Pune
Er. Mayur Mohite	Technical Officer-A [Engineering Support]	Maximum Containment Facility, ICMR-NIV, Pune
Mr. Dinesh Kumar Singh	Sr. Technician-II	Polio Virus Group & High Containment Facility, ICMR-NIV, Pune

Scientific
StaffTechnical
Staff

PRE AND POST ASSESSMENT EVALUATION OF PARTICIPANTS



GLIMPSES OF TRAINING

Introductory Session and group photos



Hands-on training on BSL-3 PPE donning and doffing



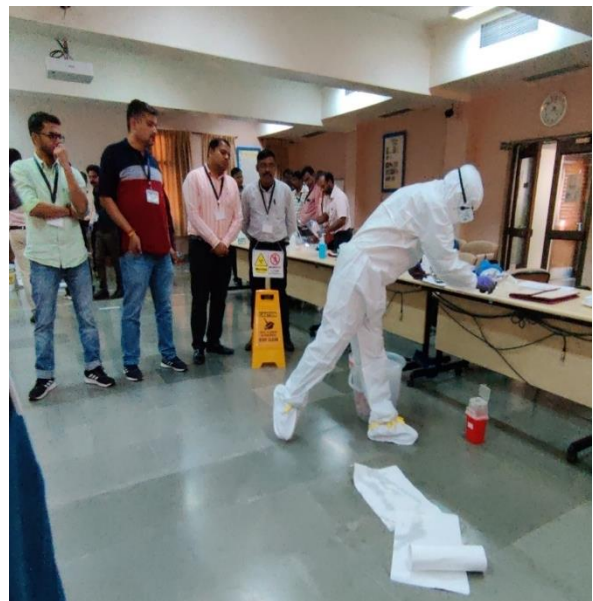
Hands-on training and Group activities [Scenario-based] for triple packaging and sample transportation



Hands-on training and Group activities [Scenario-based] for Emergency Management and responses in BSL-3 facility



Hands-on training and Group activities [Scenario-based] for Biological Spill Management {inside and outside BSC}



Hands-on training and Group activities for working in Biological Safety Cabinet



Hands-on training for Fire related Mock Drill and Responses and orientation of MBSL-3



Group activities [Scenario-based for the Risk assessment and Outbreak Responses]



Invited speakers for the training



Valedictory session



GLIMPSES OF PARTICIPANT'S FEEDBACK FORMS

PARTICIPANT-I

Training on biosafety and biosecurity for handling high-risk pathogens
in BSL-3 laboratory
April 8-12, 2024
Organized by: ICMR-NIV, PUNE

FEEDBACK FORM FOR TRAINING ASSESSMENT

Name: AMIT KUMAR

Institute details: CSIR-CCMB, HYDERABAD

Designation: TECHNICAL OFFICER

1. How relevant was the training content to your job responsibilities?
Tick most appropriate
(opinion scale- 1 being least and 5 being most)

1	2	3	4	5 ✓
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2. Did the training effectively cover the topics that were mentioned in agenda? (Yes/No) ✓

3. Was the training well-organized and easy to follow? (Yes/No) ✓

4. Did the trainer effectively engage the participants and facilitate learning? (Yes/No) ✓

5. How much did you learn during the training?
Tick most appropriate
(opinion scale- 1 being least and 5 being most)

1	2	3	4	5 ✓
---	---	---	---	-----

6. How well do you feel you retained the information from the training?
(star rating- ★ Least and ★★★★★ Most) Tick most appropriate

★
★★
★★★
★★★★
★★★★★ ✓

1

Training on biosafety and biosecurity for handling high-risk pathogens
in BSL-3 laboratory

April 8-12, 2024

Organized by: ICMR-NIV, PUNE

FEEDBACK FORM FOR TRAINING ASSESSMENT

7. How confident do you feel in applying what you have learned from the training to your job profile?

Tick most appropriate

(opinion scale- 1 being least and 5 being most)

1	2	3	4	5
---	---	---	---	---

8. Did the training provide you with the skills and knowledge that you need to perform your job more effectively? (open ended to explain)

Yes, I learn extra things, that i don't know.

9. Was the training delivery method (audio-visual) and group activities were effective in easy learning? (Yes/No)

YES

10. Did the training materials effectively supplement the training content? (Yes/No)

YES

11. Was the training location convenient and conducive to learning? (Yes/No)

YES

12. How helpful were the pre- and post-training assessment in reinforcing the training content?

Tick most appropriate

(opinion scale- 1 being least and 5 being most)

1	2	3	4	5
---	---	---	---	---

13. Did the training address any specific challenges or issues that you have been facing in your job? (open ended to explain)

YES, where we keep for extinguish in the lab.

Training on biosafety and biosecurity for handling high-risk pathogens
in BSL-3 laboratory

April 8-12, 2024

Organized by: ICMR-NIV, PUNE

FEEDBACK FORM FOR TRAINING ASSESSMENT

14. Did the training provide opportunities for hands-on practice/activities and application of the concepts learned? (open ended to explain)

YES, They teach us, how to handle each & everything in the BSL-3 lab.

15. Were the training objectives clearly defined and aligned with your learning needs? (Yes/No)

YES

16. Do you think you will use the newly introduced knowledge in your everyday work? (Yes/No)

YES

17. Was the training pace appropriate for the participants? (Yes/No)

YES

18. Did the trainer effectively address questions and concerns raised by the participants? (open ended to explain)

YES, whenever we asked questions, they clearly explain that doubt.

19. Were the training materials visually appealing and easy to read? (Yes/No)

YES

20. Was the training length appropriate for the content being covered? (Yes/No)

YES

21. Did the training provide opportunities for networking and collaboration with colleagues? (Yes/No)

YES, but need to consult with BSL-Scientist in charge.

22. Would you recommend this training to a colleague? (Yes/No)

YES, but need, trained persons also, those, who support during this training session.

Training on biosafety and biosecurity for handling high-risk pathogens
in BSL-3 laboratory
April 8-12, 2024
Organized by: ICMR-NIV, PUNE

FEEDBACK FORM FOR TRAINING ASSESSMENT

23. How was the food and refreshments during the training period?

(star rating-★ Worst and ★★★★★- Delightful) Tick most appropriate

- ★
- ★★
- ★★★
- ★★★★
- ★★★★★

24. How comfortable was stay during the training period?

(star rating-★ Worst and ★★★★★- Delightful) Tick most appropriate

- ★
- ★★
- ★★★
- ★★★★
- ★★★★★

25. Do you have any additional comments, feedback, or suggestions you would like to share with us for improvement? (open ended to explain)

The organizers are very good. They organize each and everythings in a proper way. Whenever we asked any things. They considered & implimented as soon as possible with the time frame. Thanks a lot to organizing team for organizing the wonderful event. I never attined this type of training before. This training teach me a lot.

Thank to each and every members of this organizing team.

Thank you so much.

PARTICIPANT-II

Training on biosafety and biosecurity for handling high-risk pathogens
in BSL-3 laboratory
April 8-12, 2024
Organized by: ICMR-NIV, PUNE

FEEDBACK FORM FOR TRAINING ASSESSMENT

Name: Dr. Sandeep Kumar Singh
Institute details: CCSTMIAM BANGPAT
Designation: JOINT COMMISSIONER

1. How relevant was the training content to your job responsibilities?

Tick most appropriate

(opinion scale- 1 being least and 5 being most)

1	2	3	4	5
---	---	---	---	---

2. Did the training effectively cover the topics that were mentioned in agenda? *(Yes/No)*

3. Was the training well-organized and easy to follow? *(Yes/No)*

4. Did the trainer effectively engage the participants and facilitate learning? *(Yes/No)*

5. How much did you learn during the training?

Tick most appropriate

(opinion scale- 1 being least and 5 being most)

1	2	3	4	5
---	---	---	---	---

6. How well do you feel you retained the information from the training?

(star rating-★ Least and ★★★★★- Most) Tick most appropriate

★

★★

★★★

★★★★

★★★★★

★★★★★

Training on biosafety and biosecurity for handling high-risk pathogens
in BSL-3 laboratory
April 8-12, 2024
Organized by: ICMR-NIV, PUNE

FEEDBACK FORM FOR TRAINING ASSESSMENT

7. How confident do you feel in applying what you have learned from the training to your job profile?

Tick most appropriate

(opinion scale- 1 being least and 5 being most)

1	2	3	4 ✓	5
---	---	---	-----	---

8. Did the training provide you with the skills and knowledge that you need to perform your job more effectively? (open ended to explain)

Yes. The training will be helpful in execution of upgradation of our lab besides effective permit application in pandemic preparation - outbreak investigation.

9. Was the training delivery method (audio-visual) and group activities were effective in easy learning? (Yes/No) ✓

10. Did the training materials effectively supplement the training content? (Yes/No) ✓

Training material may also include the PPTs of the experts. It may be shared on WhatsApp group.

11. Was the training location convenient and conducive to learning? (Yes/No) ✓

Yes.

12. How helpful were the pre- and post-training assessment in reinforcing the training content?

Tick most appropriate

(opinion scale- 1 being least and 5 being most)

1	2	3	4 ✓	5
---	---	---	-----	---

13. Did the training address any specific challenges or issues that you have been facing in your job? (open ended to explain)

Yes. It will help to strengthen the activity of our lab with special emphasis on planning & execution of proposed upgradation of our facility.

Training on biosafety and biosecurity for handling high-risk pathogens
in BSL-3 laboratory

April 8-12, 2024

Organized by: ICMR-NIV, PUNE

FEEDBACK FORM FOR TRAINING ASSESSMENT

14. Did the training provide opportunities for hands-on practice/activities and application of the concepts learned? (open ended to explain)

Yes. There was appropriate mix of lectures → their practical aspect.

15. Were the training objectives clearly defined and aligned with your learning needs? (Yes/No)

✓

16. Do you think you will use the newly introduced knowledge in your everyday work? (Yes/No)

✓

17. Was the training pace appropriate for the participants? (Yes/No)

✓

18. Did the trainer effectively address questions and concerns raised by the participants? (open ended to explain)

All the trainers were having command on their subject → the training sessions were interactive.

19. Were the training materials visually appealing and easy to read? (Yes/No)

✓

20. Was the training length appropriate for the content being covered? (Yes/No)

✓

21. Did the training provide opportunities for networking and collaboration with colleagues? (Yes/No)

✓

22. Would you recommend this training to a colleague? (Yes/No)

✓

Training on biosafety and biosecurity for handling high-risk pathogens
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FEEDBACK FORM FOR TRAINING ASSESSMENT

23. How was the food and refreshments during the training period?

(star rating-★ Worst and ★★★★★-Delightful) Tick most appropriate

- ★
- ★★
- ★★★
- ★★★★
- ★★★★★

24. How comfortable was stay during the training period?

(star rating-★ Worst and ★★★★★-Delightful) Tick most appropriate

- ★
- ★★
- ★★★
- ★★★★
- ★★★★★

25. Do you have any additional comments, feedback, or suggestions you would like to share with us for improvement? (open ended to explain)

- Such type trainings can also be organised at the premises of other participating labs to have a harmonization of various activities under networking.
- Team NIV-Pune has successfully organised the training and set up the tone for the training under network.





Dr. Nivedita Gupta

Scientist-G and Head CD,
ICMR, New Delhi



Dr. Pragya D. Yadav

Director-in-Charge, NIOH, Nagpur
& Scientist-F and Group Leader
Maximum Containment Laboratory
ICMR-NIV, Pune