

SectorConnect

Enhancing Preparedness for Integrated Response

REPORTS

STAKEHOLDER ENAGEMENT WORKSHOPS

FOR

FIELD EPIDEMIOLOGY PROGRAMME IN ONE HEALTH

(SectorConnect FEP OH)



Table of contents

| Topic | Page No. |
|---|----------|
| Preface | i |
| Stakeholder Engagement Workshop: 1 | 1 |
| Stakeholder Engagement Workshop: 2 | 8 |
| Stakeholder Engagement Workshop: 3 | 17 |
| Group work "Capacity building for One Health through SectorConnect" during the National One Health Conclave | 24 |
| Annexures | 30 |

Preface

The SectorConnect Field Epidemiology Program in One Health (FEP OH) was envisioned in July 2023 as an evolution of the 3X3 Frontline Training Program per the Competencies for One Health Field Epidemiology framework presented in the One Health Joint Plan for Action by the Quadripartite partners (World Health Organisation or WHO, World Organisation for Animal Health or WOAH, Food and Agricultural Organisation or FAO, and United Nations Environment Programme or UNEP). In this regard, several multi-stakeholder engagements were conducted with national and international agencies and institutions working in all health-related sectors and the One Health space in India.

The stakeholder workshops have been instrumental in shaping the curriculum and objectives of SectorConnect FEP-OH, emphasizing the importance of collaboration among various sectors and stakeholders in addressing public health challenges from a One Health perspective.

The key points discussed and the recommendations provided by stakeholders in each meeting demonstrate a comprehensive approach to capacity-building and preparedness, covering aspects such as target audience identification, core competencies, training content, field activities, and evaluation methodologies. Feedback from experts from different sectors has been incorporated into the training curriculum to ensure a holistic and well-rounded approach to curriculum development.

Furthermore, the commitment to establishing the SectorConnect Alliance (consortium) and Unified Training Unit (joint working group) underscores the collaborative nature of SectorConnect, bringing together diverse expertise to support training initiatives and enhance preparedness efforts. The participating institutions and agencies will reap overarching benefits through this collaboration.

Overall these stakeholder engagement workshops served as valuable platforms for dialogue, exchange of ideas, and collective action towards strengthening public health capacities through SectorConnect's integrated response approach.

This document is a consolidation of the proceedings and record of discussions held during these consultations.



Stakeholders Engagement Workshop: 1

National Centre for Disease Control (NCDC)

New Delhi

4 July 2023

A meeting was held under the Chairmanship of Prof. (Dr.) Atul Goel, Director General of Health Services (DGHS) & Director, National Centre for Disease Control (NCDC) and co-chaired by Dr. Abhijit Mitra, Animal Husbandry Commissioner, Department of Animal Husbandry and Dairying (DAHD) on 04.07.2023 at NCDC regarding SectorConnect: Enhancing Preparedness for an Integrated Response. The list of participants is given in Annexure 1.

1) Opening remarks

Prof. (Dr.) Atul Goel, DGHS & Director, NCDC delivered the opening remarks, emphasizing collaboration and coordination among various sectors, including human health, animal health, and environmental sectors. He further emphasized that such collaboration will strengthen the overall health system response if done during the preparedness phase.

Thereafter, Dr. Abhijit Mitra, Animal Husbandry Commissioner, DAHD addressed the stakeholders emphasizing the fact that the changes in the environment have led to spillover of pathogens from wildlife to domestic animals and finally to humans causing zoonotic diseases, emerging & re-emerging diseases and other threats like antimicrobial resistance environmental contamination with toxic chemicals, etc. He further informed that livestock farming is mostly unorganised, thus the Department is stressing awareness of the farmers on Good Animal Husbandry Practices and measures to strengthen biosecurity to prevent disease. He further stressed the need for Joint Outbreak investigation and outbreak management using the One Health approach. Further, he suggested establishing surveillance among the Rapid Response Team members involved in outbreak investigation (particularly zoonotic diseases like Avian Influenza) such as the cullers and direct handlers, who are at maximum risk. He also informed that to prepare for future disease outbreaks, the Department of Animal Husbandry and Dairying (DAHD) has launched the Animal Pandemic Preparedness Initiative (APPI), the first of its kind worldwide.

Further, Dr. Meera Dhuria, Joint Director & HOD, Division of Public Health Preparedness and Non-Communicable Diseases, NCDC briefed the stakeholders about SectorConnect, which is an umbrella of multisectoral in-service training programs, proposed for building a network and capacity of professionals across the health-related sectors for integrated response at the field. To that end, two multi-sectoral courses have been proposed – (a) a three-month short course (SectorConnect Field Epidemiology Programme in One Health or FEP OH) and (b) a 9 to 12-month fellowship (SectorConnect Field Epidemiology Fellowship in One Health or FEF OH)

2) Agenda:

Deliberations on the proposed structure for SectorConnect and Terms of Reference (TORs) for SectorConnect Alliance (consortium) and Unified Training Unit (joint working group).

3) Remarks:

Deliberations have been summarized in the following table text

| S.No. | Name | Summary of Remarks/Issues Raised |
|-------|--|--|
| 1. | Prof. (Dr.) Atul Goel, DGHS | Suggested to upgrade the 3X3 Frontline FETP training completely to SectorConnect FEP OH |
| 2. | Dr. Abhijit Mitra, AHC, DAHD | Different agencies like the FAO and WOAH have tools for conducting FETP training. Hence these tools may be analysed and the key points may be converged to develop tools that may be country-specific. He suggested to pilot test the proposed training in states and also to converge with the ongoing initiatives like the recently launched Animal Health System Support for One Health World Bank Project in 5 States. DAHD intends to initiate animal surveillance for early detection of zoonotic diseases. To achieve this, specific key indicators relevant to human health must be defined, and assistance from NCDC is required. He requested DGHS and Director, NCDC to nominate 2 officers as Point of Contact for this exercise. The development of an Integrated Digital Portal for One Health is imperative. This requires the collection of data and the establishment of key indicator to trigger alerts. |
| 2. | Dr. Simmi Tiwari, Joint Director, NCDC | Division for One Health Division and Zoonotic Disease Programmes has mapped the various surveillance systems available at various sectors like human health, animal health and environment. |

| 3. | Dr. Himanshu Chauhan, Joint Director, NCDC | NCDC conducts multiple training programs, each with its own specific purpose. However, it has been observed that since some participants are shared among these programs, it causes confusion. Therefore, it is recommended that there should be a convergence of training programs, and a method should be devised to assess their effectiveness. |
|----|--|--|
| 4. | Dr. Anil Kumar, Principal, Advisor, NCDC | Sharing of data between human health and animal health department and timely generation of triggers in order to prevent outbreaks. Administrative linkages at different levels like district, state, and center. The trained person should be able to analyze the information received on time. |
| 5. | Dr. Monil Singhai, Joint Director, NCDC | The integration of all sector should be horizontal rather than vertical. While the analytical aspects of investigations in human and animal health may be similar, the pre and post-analytical components differ and should be handled by the respective parent institutes or departments. |
| 6. | Dr. Nhu Nguyen Tran Minh, Team Lead, Public Health Emergencies, WHO Country Office for India | Information was shared regarding the One Health operational tools developed by the Quadripartite (WHO, WOAH, FAO and UNEP), emphasizing the collaboration of all sectors involved. It was recommended to carry out activities for community engagement. |
| 7. | Dr. Ritu Chauhan, WHO Country Office for India | She emphasized the importance of joint risk assessment, mitigation & preparedness, developing leadership to manage the field work better and community engagement. |
| 8. | Dr. S. Venkatesh, Consultant, NCDC | • ·Good initiative for cross-learning between human and animal partners. |

| | | There should be representation from Fisheries in addition to the present representatives from Animal Husbandry, Dairy Development, and Wildlife. Cantonment officers and MCD officers should be involved. Planetary health shouldbe included. Training programshould have credit hours with National Medical Council and Veterinary Council of India. |
|-----|---|---|
| 9. | Dr. Gowri Mallapur, Veterinarian, former Veterinary Consultant, Central Zoo Authority | Wildlife surveillance training to be included. Also, Wildlife and environment sectors to be represented in the Unified training Unit. Wildlife experts to be included in training initiatives to ensure appropriate training with regards to ex situ and in situ components. |
| 10. | Dr. Mohd. Mudassar Chanda, Senior Scientist, ICAR NIVEDI | It was suggested that FETP-One Health could be for those who have successfully completed either FETP-Epidemiology or FETP-Vet training so that more topics can be included in the training module. Training of Trainers has also been suggested. |
| 11. | Dr. Nahoko leda, WOAH, Tokyo (written statement shared through email) | SectorConnect seems to be already well- shaped by great engagement of DAHD representing Animal Health sector. All WOAH's supports have been & will be to help India to adhere/implement WOAH Standards – Codes & Manuals. If requested through the WOAH delegate/Secretary of DAHD, a specific support could be accommodated under WOAH's global programmes e.g. PVS targeted supports. Wildlife health is also an important component in WOAH's mandate, though not listed in the current proposal (not that we should be listed, just to highlight the potential area of collaboration). As a part of the Regional Quadripartite, WOAH Regional Representation for Asia and the Pacific would love to facilitate the discussions between SectorConnect and the Global/Regional/Country Quadripartite. |

| | | We will be happy to stay in touch for further discussion & development of SectorConnect. |
|-----|--|---|
| 12. | Dr. Jasbir Singh Bedi, Director, Centre of One Health, GADVASU | He appreciated the initiatives and emphasized the fact that there are many research programs but no capacity building program for One Health. He suggested the short length of course for making it interested for the participants. He also mentioned that it is good that the proposed training is field based and he will be happy to be part of it. |
| 13. | Dr. Sukarma Tanwar and Dr. Kristin Vander Ende (CDC India) | They congratulated on the initiative and offered to provide technical assistance for module development, technical staff/ faculty, training of mentors, and sharing the one health modules pilot tested by Centers for Disease Control and Prevention (CDC) headquarters. Suggested Sharable Content Object Reference Model (SCORM) for e-learning in One Health training through the Learninig Management System and supporting the development of additional modules. |

4) Way forward:

Notification of Constitution of the Consortium and Unified training unit with their ToRs (Action point: NCDC in coordination with DAHD)

Key Insights from 1st Stakeholder Consultation

- · Need for collaborative and coordinated efforts for
 - o Capacity building- for intersectoral one-health workforce
 - o Preparedness and Response- Joint Action Plan
- · Field Epidemiology training in One Health is necessary with
 - Multisectoral Joint working group: SectorConnect Alliance and Unified Training Unit
 - o Participating officers from all the relevant sectors



3

Key Insights from 1st Stakeholder Consultation

- · Need for standardization of tools and trainings across sectors for
 - o Outbreak investigation
 - o Joint Risk Assessment
 - o Surveillance information Sharing

Operationalization tripartite tools available for national level



4

Key Insights from 1st Stakeholder Consultation

- Terms of Reference for SectorConnect Alliance and Unified Training Unit
- · All partners to identify point person for the Unified Training Unit
- · Multisectoral Field Epidemiology trainings under SectorConnect
 - o Field Epidemiology Programme in One Health (FEP OH)
 - o Field Epidemiology Fellowship in One Health (FEF OH)





Stakeholders Engagement Workshop: 2

NCDC, New Delhi

4-5 September 2023

The 2nd Stakeholders Engagement Workshop for 'SectorConnect: Enhancing Preparedness for Integrated Response' was organized to invite expert comments and suggestions for the curriculum of SectorConnect's Field Epidemiology Programme in One Health (FEP OH). This workshop was a follow-up to the 1st Stakeholder Meeting that was held in July 2023. The workshop was organized in the PG Hostel of NCDC, on 4th and 5th September, 2023. This is a brief report of the proceedings of the workshop.

• **Objective**: Deliberations on the curriculum for the SectorConnect FEP OH: 3 months of on-the-job training for in-service government officials at the district level.

Opening Remarks: The inaugural ceremony was graced by Prof (Dr.) Atul Goel, DGHS, Director, NCDC and Dr. Abhijit Mitra, Animal Husbandry Commissioner, DAHD through the online mode. Prof. Atul Goel discussed SectorConnect FEPOH, aiming to boost district-level field epidemiology capacity aligned with India's One Health Mission by building on the successful 3x3 Frontline FETP model and incorporating lessons from previous programmes, anticipating productive discussions from the workshop to shape the curriculum. Dr. Abhijit Mitra underscored the vitality of inter-sectoral collaboration in the context of preparedness, and NCDC's long-standing stint with capacity building in the area of Field Epidemiology highlighting the long-standing discourse on this agenda now transitioning into operationalization. He emphasized the value of employing standardized tools across sectors to facilitate epidemiological data sharing, enabling early warning signal detection and a holistic response approach.

Dr. Anil Kumar, Principal Advisor, NCDC and Dr. Sunil Gupta, Principal Consultant, NCDC also shared their experience in Epidemiology training and One Health.



Day 1: Deliberations on Target Audience, Competencies and Training Content for SectorConnect FEP OH

The workshop commenced with a presentation by Dr. Priyanka Kundra on key insights gleaned from the previous stakeholders' meeting. Dr. Meera Dhuria followed with an overview of the successful 3X3 Frontline Epidemiology training model initiated by NCDC in 2021, focusing on the human health sector. Dr. Himanshu Chauhan from IDSP Central Surveillance Unit, Mr Ha I representing the State Surveillance Unit of Meghalaya, and Dr Vinod Patel, DSO of Mehsana district, Gujarat, shared their experiences, paving the way for potential expansion of the model with a One Health approach, involving all relevant stakeholders.

I. Technical Session 1 (Target Audience)

After a brief tea break, the workshop delved into technical discussions concerning the curriculum of the SectorConnect FEP OH. The first topic addressed was the identification of the target audience. The Sector Connect team presented potential target groups based on a literature review, involving input from international partners and the One Health programme. A tabletop exercise and open discussion allowed for the prioritization of proposed audience categories and the inclusion of any previously overlooked groups. The session was co-chaired by Dr. Anil Kumar and Dr. Sunil Kumar Gupta.

Outcome of Technical Session 1: There was a consensus on the identified target audience. A few suggestions were made to add new profiles if feasible. These profiles are (in no particular order):

- 1. Human Health: Medical Officers in charge of health facilities, faculty from medical colleges
- 2.Animal Health: Faculty from veterinary colleges, scientists from Indian Council of Agricultural Research (ICAR) institutes, officers working in the Fisheries sector
- 3. Wildlife and Environment: Range officers, forest officers, veterinarians in Wildlife NGOs, officers from Krishi Vigyan Kendras (KVK), Ecologists
- 4. Others: officers involved in Emergency and Disaster response teams at the district level.

Subsequent sessions focused on ongoing academic programmes within the One Health sphere, with presentations from Kerala Veterinary and Agricultural Sciences University (KVASU), Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) and All India Institute of Medical Sciences (AIIMS) Bibinagar .AIIMS Bibinagar expressed interest in aligning their proposed PG Diploma course with the proposed under Sector Connect FEF OH. Dr. Simmi Tiwari, Joint Director, of Centre for One Health, NCDC emphasized the need for the inclusion of the Wildlife Sector and the role of Regional Coordinators under the National One Health Programme for Prevention and Control for Zoonoses (NOHP-PCZ) in taking forward the agenda.

Dr. Tran from WHO Country Office India emphasized the need for field epidemiology training in One Health and highlighted the Competency Framework in One Health for Field Epidemiology (COHFE) developed under the tripartite agreement of WHO, WOAH, and FAO. Dr. Rajkumar Singh from FAO India highlighted the skills and competencies envisioned by FAO for Frontline Workers (FLWs) at Human-Environment-Wildlife-Livestock Interface (HEWiLi) and emphasized the FAO's commitment and involvement throughout the process of establishment of SectorConnect and training the FLWs and importance of community level engagement in the animal health sector, which is currently facing acute dearth of trained field epidemiologists.

Further the partners noted the alignment of the core competencies discussed during the first meeting with those in the shared document.

II. Technical Session 2 (Core Competencies)

The SectorConnect team presented core competencies for the FEP-OH course, leading to tabletop exercises to prioritize and expand upon the competencies to be incorporated into the three-month course. Lunch followed these discussions. The session was co-chaired by Dr. Anil Kumar and Dr. Sunil Kumar Gupta.

Outcome of Technical Session 2: There was a consensus on the identified core competencies, which were in line with the COHFE developed by Tripartite (now Quadripartite).

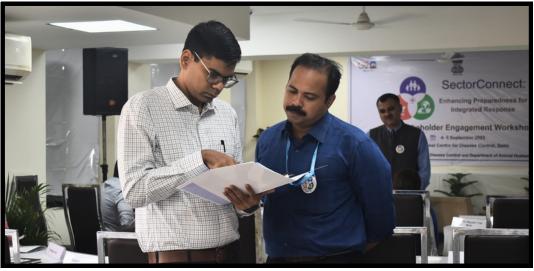
I<u>II. Technical Session 3 (Training Content)</u>

Dr. Amir Maroof Khan then guided participants through the development of specific learning objectives and the selection of teaching-learning methods using interactive techniques, preparing them for the upcoming technical sessions. During this session, participants engaged in mapping the essential core competencies to specific modules and associated learning objectives. The session involved diverse multi-sectoral groups participating in discussions related to these topics. This resulted in a more comprehensive understanding and integration of core competencies within the various modules, ensuring a holistic and well-rounded approach to learning outcomes, and ultimately enhancing the effectiveness of the learning experience. The session was cochaired by Dr. Arti Bahl and Dr. Jyoti Misri.

The deliberations during the discussions brought to light that the allocated three-month timeframe may be insufficient for covering an extensive array of topics comprehensively. Instead, it was emphasized that this period should be strategically utilized as a prime opportunity for fostering intersectoral relationships and facilitating the exchange of information. This can be achieved through contact sessions and collaborative field assignments, where participants from various sectors can actively engage in knowledge sharing, cross-sectoral collaboration, and team building. Further, expanding the program to encompass additional One Health areas over the fellowship program of a one-year can be a promising initiative.

Outcome of Technical Session 3: There was an overall consensus on the content of the training, however, suggestions were made to rephrase some of the learning objectives. The suggestions will be reviewed in depth considering factors such as alignment with the program's objectives, duration, feasibility, and potential impact on learning outcomes.





Day 2: Deliberations on Core Activities of Learning (Field Assignments), Andragogy and Evaluation Methodology SectorConnect FEP OH

Day 2 commenced with a recap of Day 1 events presented by the SectorConnect Team, followed by presentations on the technical session discussions by each group.

IV. Technical Session 4 (Core Activities of Learning)

Dr. Meera Dhuria led a session on Core Activities of Learning (CALs), followed by a Question and Answer session on proposed field activities, addressed by field epidemiology training experts, the SectorConnect Team, and Dr Meera. The chair and the co-chair were Dr. S. Senthilnathan and Dr. Raj Kumar Singh. The topic of the inclusion of medical and veterinarian college junior faculties as participants was also addressed (they were to be mentors for the trainee officers). The mentorship pathway was accepted which included technical support and monitoring by the Programme Secretariat at NCDC.

Outcome of Technical Session 4: This was accepted well by the experts. A detailed discussion on the nuances of mentors involved transpired.

V. Technical Session 5 (Andragogy and Evaluation Methodology)

The final technical session featured a brief session and demonstration of blended learning and LMS used by India FETP. Experts from CDC and Safetynet addressed queries, emphasizing the effectiveness and usefulness of these tools. The session was co-chaired by Dr. Tran and Dr. Lakshmi Jyoti. The workshop concluded with a session on andragogy and assessment. Pre-formed groups from technical session 3 engaged in group discussions, offering potential solutions and suggestions for incorporation into the curriculum. This productive session was followed by lunch and a concluding session. The session was co-chaired by Dr. Kristin VanderEnde and Dr. Neeraj Khera. The key suggestions that came out of the group work were the incorporation of ice-breaking tools during the first contact session. Use of simulation exercises along with case studies and role-plays. Use of blended learning (online SCORM content) as post-session or pre-session mandates. Dr. Neeraj Khera offered to extend technical support for developing activities based on a participatory approach to training.

Outcome of Technical Session 5: There was a consensus on the andragogy. Specific suggestions were made to incorporate exercises and activities that can act as icebreakers, and promote collaboration and team spirit. The idea of a blended learning model using the LMS was well accepted by the experts.

The suggestions will be reviewed by the internal team for inclusion. SectorConnect Alliance and Unified Training Unit were highlighted as core elements of the implementation plan.

Way Forward:

- 1. Constitution of SectorConnect Alliance (Consortium).
- 2. Constitution of a Unified Training Unit (Joint Working Group).
- 3. Sharing of finalized course curriculum, modules, implementation plan based on deliberations.
- 4. Pilot SectorConnect FEP OH from Gujarat





SectorConnect: Enhancing Preparedness for **Integrated Response**

Objectives



- 1. Strengthen the system's capacity to respond to public health threats through multi-sectoral collaborative approach
- 2. Enhance inter-sectoral coordination and cross learning
- 3. Enhance epidemiological skills for joint risk assessment & outbreak investigation of the state, district, & field level officers across various sectors
- 4. Enable sharing of information across sectors for identification and response to early warning signals
- 5. Enhance skills for evidence-based decision-making, effective communication, and transformational leadership
- 6. Build a sustainable network of trained professionals across sectors for continued collaborative efforts to tackle issues of public health importance

SectorConnect Field Epidemiology Programme in One Health (FEP OH)

· 3-months in-service training programme District officials from all health-

(Mentored group

activity, at duty

stations)

Management with

Outbreak

One Health

approach

Week no.

Activities

Topic covered

- Principles of Epidemiology Principles of One
- Health Surveillance (human & animal health) and
- Information sharing Data management
- Joint Risk Assessment
- activity, at duty stations) Surveillance data
 - analysis including use of results for: Joint Risk Assessment
 - Zoonotic Disease Prioritization
- (Mentored group
 - Field assignment presentation Outbreak
 - Management Immunization Biosafety &
 - Biosecurity Communication

- related departments

 - Field assignment
 - presentation IHR PVS
 - Flagship programmes of different sectors
 - Scientific Writing
 - Leadership & team building
 - Stakeholder Analysis

SectorConnect FEP OH – Something for everyone

Human Health

 Lesser spillover of pathogens

Management with One Health approach

Animal Health

- · Improved safety of pet owners
- Better production

Enhanced skills for

animal-environment

Wildlife

· Improved field biosafety

Agriculture &Food Safety

· Improved consumer protection

SectorConnect FEP OH – Core Competencies



Surveillance data analysis, interpretation and sharing



Epidemiological concepts (including Joint Risk Assessment)



Outbreak management with one health approach



Effective Communication (risk communication and community engagement)



Scientific Communication (abstracts or presentations)

50

SectorConnect FEP OH – Core Activities of Learning (CAL)

| CAL | Activity (Mandatory) | Minimum |
|-------|--|---------|
| CAL-1 | Surveillance system assessment and data analysis (Group Project) including use of results for: a. Joint Risk Assessment b. Zoonotic Disease Prioritization | 1 |
| CAL-2 | Outbreak/Field investigation with One Health Approach (descriptive; Group project) | 1 |

Field assignments to be presented (in **IMRaD** format on **PPT**) in front of peers, programme, state and central government officials.

59

Programme Secretariat (at NCDC) Technical support and monitoring Primary Mentor (Medical/ Veterinary College Faculty) Continuous hand-holding and supervision Co-mentor Fill in for the primary mentor in case of his/her unavailability Subject Matter Experts Programme Secretariat (at NCDC) Group of Mentees (FEP OH trainees) Carry out the field assignment in groups. Prepare and deliver a scientific presentation (PPT) on the same.



Stakeholders Engagement Workshop: 3

NCDC, New Delhi

6 November 2023

The third meeting of the Stakeholders Engagement Workshop for 'Sector Connect: Enhancing Preparedness for Integrated Response' was convened under the chairmanship of Dr. Anil Kumar, Principal Advisor at NCDC, Delhi on November 6, 2023 from 10:00 AM-01:00 PM at Division of Public Health Preparedness and Non-Communicable Diseases, Room No. 403, IV floor, NCDC, Delhi.

Objective: The objective of the meeting was to review the learning module content (learning objectives, exercises and interactive methods used for teaching) of Contact Sessions 1 and 2 for SectorConnect Field Epidemiology Programme in One Health (FEP OH), and elicit expert opinions and recommendations on the same.

Proceedings of the meeting:

Dr. Anil Kumar, Principal Advisor at NCDC, commenced the meeting by delivering an overview of the FEP OH programme, while reflecting on the progress achieved in the preceding two Stakeholder Engagement meetings for SectorConnect FEP OH. Dr. Meera Dhuria, Joint Director & Head, Division of Public Health Preparedness and NCD, NCDC welcomed all the participants and provided a brief on 2nd engagement workshop held on September 4-5, 2023 and discussed the flow of the current meeting, which was as follows:

- 1. Demonstrate incorporation of learning objectives agreed upon in the previous workshops.
- 2. Assure the usage of interactive learning methodologies based on adult learning principles.
- 3. Collect feedback from experts on learning modules.
- 4. Open discussion on way forward.

The meeting was attended in person and online by a diverse assembly of stakeholders, encompassing government officials and international representatives hailing from diverse sectors and institutions. List of participants is given in Annexure 2.

Highlights of Key Deliberations

| S.No | Technical Session | Key Messsages |
|------|-------------------------------|---|
| 1 | Contact Session 1 (CS1) | A total of 13 modules, along with corresponding exercises, will encompass the concepts of the surveillance cycle and systems in both the human and animal health sectors. These modules were well-received by the stakeholders, who also recommended the inclusion of surveillance systems within the purview of the Food Safety and Standards Authority of India (FSSAI) and the environmental sector |
| 2 | Contact Session 2 (CS2) | A comprehensive set of five modules, accompanied by practical exercises, underscores the systematic approach to joint outbreak investigations, incorporating laboratory connections and principles of biosafety and biosecurity. These modules garnered favorable reception from the stakeholders. Moreover, stakeholders provided feedback and recommendations regarding the operational aspects of field assignment 2, which are elaborated upon in the subsequent table |

Remarks by Stakeholders

| S. No | Name and Designation | Remarks |
|-------|--|---|
| 1. | Dr. Anil Kumar, Principal Advisor, NCDC | Suggested to emphasize on the need for investigation upon detection of a cluster or receipt of an alert, as the clear decision on calling an event an outbreak can only be taken post a field investigation. Suggested adding exercises on "How to import data and graphs from MS Excel to Power Point presentation" |

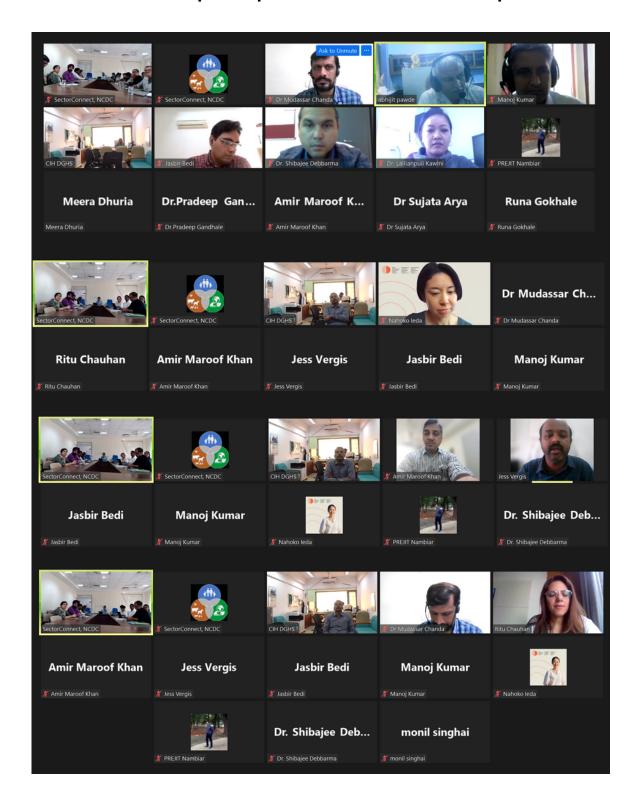
| | | Discussed various challenges related to conducting regular meetings and sharing information during an outbreak investigation. Monitoring and evaluation indicators should be collected for training program to assess impact. GIS mapping should be incorporated in the modules. |
|---|---|--|
| 2 | Dr. S Venkatesh, Principal Advisor, NCDC | Efforts should be made to teach the officers about regular communication to senior administration within the sector |
| 3 | Dr. Mayank Dwivedi, Public Health Specialist and Laboratory Advisor, CDC- DGHP India | Block Public Health Units can be utilized to convene in-person meetings among sectors for regular informationsharing required during response. |
| 4 | Dr. Ritu Chauhan, NPO-IHR, WHO India | Community outreach activities being undertaken by various stakeholder institutions may be utilised for facilitating CALs of the officers. The module on communication may discuss strategies for communication during acute events (such as outbreaks) and regular communication. Informational video for SectorConnect may be developed targeted at the administrators and policy makers at National and State level for sensitization. |

| 5 | Dr. Tushar Nale, Deputy Director, Centre for One Health, NCDC | Suggested to include surveillance and information systems under FSSAI and Wildlife into the modules. |
|---|---|---|
| 6 | Dr. Lallianpui, Scientist D, Wildlife Institute of India | Highlighted the need to develop capacity for surveillance data collection and information sharing among the forest frontline staff (such as forest rangers). |
| 7 | Dr. Nahoko Leda, Regional Project Officer, AMR, WOAH | Include World Animal Health Information System (WAHIS) under the disease surveillance module. Offered to share materials used during a multi-sectoral workshop conducted on wildlife spillover events |
| 8 | Dr. Saurabh Goel, JointDirector, IDSP, NCDC | Suggested that SectorConnect training is a good opportunity to collect feedback and suggestions from officers from other sectors to enable supplementary (one health) data collection on IHIP platform |
| 9 | Dr. Mohd. Mudassar Chanda, Scientist, NIVEDI | Engaged in a discussion about the significance of establishing clear roles in different scenarios of zoonotic disease outbreaks for various sectors. Suggested that there should be an emphasis on the idea that not every instance involves a full-blown outbreak. Some clusters, even if they don't qualify as outbreaks, may still require public health intervention. Offered to provide guidance and material on developing GIS-specific modules |

| 10 | Dr. Jasbir Singh Bedi, Director, School of Public Health and Zoonoses, GADVASU, Ludhiana | Suggested that the programme secretariat can utilize the open-source data under a Department of Biotechnology project on One Health (Consortium of OH Projects Network), which focuses on 10 priorityzoonotic diseases |
|----|---|--|
| 11 | Dr. Amir Maroof Khan,Professor, Department of Community Medicine,UCMS | Officers should also document the data collected byobservations and informal interviews during field visits. Suggested that officers should document importantobservations through photographs as well, as relevant. |
| 12 | Dr. Abhijit Pawde, I/C Centre for WildLife, Indian Veterinary Research Institute, Izatnagar, Bareilly | Shared field stories of wildlife spillover events to emphasize the importance of field biosafety and community engagement. Highlighted the lack of mechanisms related to disease surveillance in wildlife sector. |
| 13 | Dr. Anoop Veladhuyan, Scientist E, Epidemiology and Communicable Diseases, ICMR, Delhi | Suggested to discuss the concepts of sensitivity and positive predictive value (PPV) to capture the zoonotic disease and spillovers through surveillance systems. He opined that the Introduction, Methods, Results and Discussion (IMRaD) structure may not be ideal for district officers to have technical communications with bureaucrats. Suggested other methods may be included in the modules. Suggest developing a tool kit for visualizing the outbreak cases through Geographical Information Systems (GIS) maps. |

The meeting came to a close with Dr. Anil Kumar commending the enriching and valuable discussions that unfolded throughout the meeting.

Online participants of the third workshop





Group work on "Capacity building for One Health through SectorConnect"

"National Conclave – Uniting for One Health"

Le Meridien Hotel, New Delhi

6-7 July 2023

Background

A conclave under the theme "Uniting for One Health" was organized by the National One Health Programme for Prevention and Control of Zoonoses (NOHPPCZ), Division of Zoonotic Diseases Programme (DZDP), National Centre for Disease Control (NCDC) from 6-7 July 2023 at Delhi. The conclave saw national representation from various sectors—human health, animal health, wildlife, forest, and academia. The two-day conclave provided a platform for the stakeholders to deliberate through multiple technical sessions and break-out sessions for group work.

The participants were divided into four groups based on key thematic areas for the technical breakout session. One of the topics for discussion was—SectorConnect for Capacity Building in One Health. This group work was moderated by the 3x3 Frontline FETP team—Dr. Ameya Vaze and Dr. Shaileja Yadav. The group deliberated on the topic in the context of their existing systems and planned for possible intersectoral collaboration strategies for an integrated response. The group members prepared and delivered a PowerPoint presentation based on the salient points of discussion.

Since NCDC is preparing to initiate a multi-sectoral training programme, SectorConnect Field Epidemiology Programme in One Health (FEP OH), for the district-level workforce in the one health space, the group work helped highlight the gaps in the existing capacity development programs and strategies, which in turn will help to improve the SectorConnect training. The details of the participants and discussion points are presented in this report.

- 1. **Points of discussion**: The group deliberated over the following points during the discussion.
- a. The existing capacity-building mechanisms for different stakeholders for prevention and control of zoonoses; and how they cover the following-
 - Training and Education
 - Collaboration and Networking
 - Institutional Development
 - Research and Innovation
 - Advocacy and Policy Development.
- b. The training requirements for different human resources across the sectors.
- c. Existing challenges (operational and technical) for strengthening overall capacity for prevention and control of zoonoses.
- d. How an inter-sectoral approach can improve the training and capacity-building programmes.

- 2. **Participants**: The group saw participation from all the sectors present-human health, animal health, wildlife, agriculture, and academia (medical and veterinary). The complete list of the participants is given in the Annexure 3.
- 3. **Salient points of discussion**: The following are the salient points that emerged during the discussion-
- The participants mapped existing training and education activities and mechanisms. It was clear that all sectors have a formal mechanism to impart training of some kind.
- There are no training programmes for the prevention and control of zoonoses in the wildlife and agriculture sector.
- While there were mechanisms for training and education, collaboration and networking, institutional development, research and innovation, and advocacy and policy development across all the sectors, there was a deficiency of platforms where all the sectors could come together frequently and discuss field-level issues.
- Training of para-medical, para-veterinary staff, frontline health workers and community stakeholders was needed for the effective implementation of one health measures
- The need for inter-sectoral training, where common modules could be taught to various participants while clarifying roles and responsibilities, was expressed by all the participants.
- The group also opined that the health promotion activities done at the community level should also be interlinked, that is, there should be an intersectoral team carrying out Information, Education and Communication activities instead of just the human health department.

Conclusion:

The participants of the technical group on SectorConnect for capacity building in One Health expressed the need for an inter-sectoral training programme with a common curriculum for all sectors involved so that the trainees (field workforce) can have a clarity of roles and responsibilities while working as a One Health team. The group mapped the existing mechanisms for training and education across all sectors. This record of discussion will help the SectorConnect team in leveraging the existing resources for the improvement of SectorConnect short course training.

Group work during National One Health Conclave

Sector Connect for capacity building under One Health

Presented by Group - 3

Existing capacity building mechanisms exist for different stakeholders for prevention and control of zoonoses

Training & Education

Health Sector

- Already existing at NHM PIP & ASCAD
- Training through development partners like WHO, NCDC
- Medical Colleges through course curriculum & CME
- · Multi stakeholder training through ICMR
- · Providing tools & devices for data capturing

2

Existing capacity building mechanisms exist for different stakeholders for prevention and control of zoonoses

Training & Education

Health Sector

- Already existing at NHM PIP & ASCAD
- Training through development partners like WHO, NCDC
- Medical Colleges through course curriculum & CME
- · Multi stakeholder training through ICMR
- Providing tools & devices for data capturing

Existing capacity building mechanisms exist for different stakeholders for prevention and control of zoonoses

Training & Education

Agriculture

 Through training institutes for officers and field staff but no course on zoonosis to begin with UG level

4

Existing capacity building mechanisms exist for different stakeholders for prevention and control of zoonoses

Collaboration & Networking

- Block/District/State level task force & Zoonotic Committee
- Collaboration b/w sectors through advocacy meeting
- · Development partners organized meets
- RRTs

Institutional Development

 State-level lab under ICMR & NCDC, State level ref labs, Labs in MCs, BPHU, IPHL, MSU, Central Ref lab in Bhopal, MP

5

Existing capacity building mechanisms exist for different stakeholders for prevention and control of zoonoses

Research

Subclinical infection on Leptospirosis

Advocacy & Policy

- · ICMR developed implementation steady for elimination of Human anthrax
- State/ICMR/Colleges
- Rabies
- JE, Dengue, COVID
- Leptospirosis
- NAP for Glanders, Avian Influenza, NADCP for Brucellosis
- PCICD(2009), State AP for Rabies, ABC for Rabies control

Training Requirements

- Training requirement:
- Training of Nodal officers/ Medical Officers, Microbiologist, Epidemiologist/ Medical Entomologist, Data managers and Data analyst.
- · Robust training cell can be integrated
- Training of Vet & E & F experts of Medical

Existing challenges (operational and technical) for the strengthening of overall capacity

- · Fund crunch
- · Dedicated / trained man-power in every sectors
- · State level co-ordination cell
- Veterinary Epidemiologist at IDSP Cell
- Medical Epidemiologist vet Epid Cell
- Small core-group- MO/VO/Epidemiologist/DM/Wild life expert for routine co-ordination, convergence and data analysis
- · Quarantine facility for animal & human check point
- Developing protocol for epidemiological for lab investigation for syndromic cluster outbreaks
- · Developing training and teaching materials
- · Developing one center in each state as center of excellence
- · Develop dedicated data management analysis Cell in every state

1

Intersectoral approach for capacity building

- · Already mention in training requirements
- Cross training of different personnel in other related departments

Suggestions for improving prevention and control of Zoonoses at State/ district level

- Common training modules for all sectors with defined roles and responsibility
- Interlinking of IEC
- At least one Model centers at district level
- Each department should have one nodal officer as Member secretary and responsible for the regular updating of center HQ
- IHIP portal integration in all department

Annexure I List of participants in 1st Stakeholder Workshop

| S.No | Name | Designation | |
|---------------------------------------|--------------------------|--------------------------------------|--|
| Mode of Attending Meeting – In-Person | | | |
| | | DAHD | |
| 1. | Dr. Abhijit Mitra | Animal Husbandry Commissioner | |
| 2. | Dr. Adhiraj Mishra | Assistant Commissioner | |
| | | NCDC | |
| 3. | Prof. Dr Atul Goel | DGHS and Director | |
| 4. | Dr. Anil Kumar | Principal Advisor | |
| 5. | Dr. S. Venkatesh | Consultant | |
| 6. | Dr. Arti Bahl | Additional Director | |
| 7. | Dr. Himanshu Chauhan | Joint Director | |
| 8. | Dr. Meera Dhuria | Joint Director | |
| 9. | Dr. Simmi Tiwari | Joint Director | |
| 10. | Dr. Monil Singhai | Joint Director | |
| 11. | Dr. Tushar Nale | Deputy Director | |
| 12. | Dr. Garima Srivastava | Deputy Director | |
| 13. | Dr. Priyanka Kundra | SMO | |
| 14. | Dr. Ameya Vaze | Frontline team | |
| 15. | Dr. Shaileja Yadav | Frontline team | |
| | | WHO | |
| 16. | Dr. Nhu Nguyen Tran Minh | Team Lead, Public Health Emergencies | |
| 17. | Dr. Ritu Chauhan | NPO-IHR | |
| 18. | Dr. Prejit Nambiar | Technical Officer, One Health | |
| CDC India office | | | |
| 19. | Dr. Kristin Vander Ende | Resident Advisor | |
| 20. | Dr. Sukarma Tanwar | PHS | |
| 21. | Dr. Ravinder Pal Singh | PHS | |
| | Safetynet | | |
| 22. | Dr. Sushma Choudhary | Program Advisor | |

| Online participants of 1st Stakeholder Workshop | | | | |
|---|---------------------------|---|--|--|
| 23. | Dr. Rajesh Dubey | FAO Country office | | |
| 24. | Dr. Jasbir Singh Bedi | Director, Centre of One Health, College of Veterinary Science, GADVASU, Ludhiana | | |
| 25. | Dr. Asha | Deptt. of Veterinary Public Health & COHEART, KVASU | | |
| 26. | Dr. Venu | Deptt. of Veterinary Public Health& COHEART, KVASU | | |
| 27. | Dr. Jess Vergis | Deptt. of Veterinary Public Health & COHEART, KVASU | | |
| 28. | Dr. Mohd. Mudassar Chanda | Senior Scientist, ICAR NIVEDI | | |
| 29. | Dr. Gouri Mallapure | Veterinarian, Former Veterinary Consultant, Central Zoo Authority | | |
| 30. | Dr. Lesa Thompson | World Organisation for Animal Health (founded as OIE) Regional Representation for Asia and the Pacific | | |
| 31. | Dr. Nahoko leda | World Organisation for Animal Health (founded as OIE) Regional Representation for Asia and the Pacific | | |

Annexure II List of participants in 3rd Stakeholder Workshop

| S.No | Name | Designation | | | | |
|---------------------------------------|-------------------------|------------------------|--|--|--|--|
| Mode of Attending Meeting – In-Person | | | | | | |
| NCDC | | | | | | |
| 1 | Dr. Anil Kumar | Principal Advisor | | | | |
| 2. | Dr. S. Venkatesh | Consultant | | | | |
| 3. | Dr. Arti Bahl | Additional Director | | | | |
| 4. | Dr. Meera Dhuria | Joint Director | | | | |
| 5. | Dr. Monil Singhai | Joint Director | | | | |
| 6. | Dr. Saurabh Goel | Joint Director | | | | |
| 7. | Dr. Priyanka Kundra | Senior Medical Officer | | | | |
| 8. | Dr. Tushar Nale | Deputy Director | | | | |
| 9. | Dr. Ameya Vaze | SectorConnect team | | | | |
| 10. | Dr. Shaileja Yadav | SectorConnect team | | | | |
| 11. | Dr. Bhavesh | SectorConnect team | | | | |
| 12. | Dr. Anamika Sahu | SectorConnect team | | | | |
| 13. | Dr. Dharmesh Arya | EIS Officer | | | | |
| ICMR | | | | | | |
| 14. | Dr. Anup Vel | Scientist E, ICMR | | | | |
| | CDC | India office | | | | |
| 15. | Dr. Kristin Vander Ende | Resident Advisor | | | | |
| 16. | Dr. Sukarma Tanwar | PHS | | | | |
| 17. | Dr. Ravinder Pal Singh | PHS | | | | |
| 18. | Dr. Mayank Dviwedi | PHS | | | | |
| Safetynet | | | | | | |
| 19. | Dr. Sushma Choudhary | Program Advisor | | | | |

| S.No | Name | Designation | | | | |
|------|------------------------------------|---|--|--|--|--|
| | Mode of Attending Meeting – Online | | | | | |
| | NCDC | | | | | |
| 20. | Dr. S Senthilnathan | CMO (SAG) IH, MoHFW | | | | |
| 21. | Dr. Jasbir Singh Bedi | Director, Centre of One Health, College of Veterinary Science, GADVASU, Ludhiana | | | | |
| 22. | Dr. Mohd. Mudassar Chanda | Senior Scientist, ICAR NIVEDI | | | | |
| 23. | Dr. Jess Vergis | COHEART, KVASU | | | | |
| 24. | Dr. Amir Maroof Khan | Professor, Dept of Community Medicine, UCMS, Delhi | | | | |
| 25. | Dr. Pradeep Gandhale | Senior Scientist, NIHSAD | | | | |
| 26. | Dr. Lallinpuri Kawlni | Scientist D, Wildlife institute of India | | | | |
| 27. | Dr. Manoj | Senior Scientist, NIHSAD | | | | |
| 28. | Dr. Lakshmi Jyothi Tadi | Additional Professor, Dept of Microbiology, AIIMS Bibinagar | | | | |
| 29. | Dr. Shibajee Debbarma | Asst. Professor, Dept of Community Medicine, AIIMS Patna | | | | |
| 30. | Dr. Runa Hatti Gokhale | Associate Director of Science and Programs, CDC India | | | | |
| 31. | Dr. Nahoko leda | World Organisation for Animal Health (founded as OIE) Regional Representation for Asia and the Pacific | | | | |
| 32. | Dr. Ritu Chauhan | NPO-IHR, WHO Country India office | | | | |
| 33. | Dr. Prejit Nambiar | Technical Officer, One Health, WHO Country India Office | | | | |

Annexure 3 List of Participants: One Health Conclave Group Work

| S. No | Name of the participant | Designation and Departmet | Sector | State |
|----------|------------------------------------|---|------------------------|------------------------|
| 1 | Dr. Jayesh Solanki | State Epidemiologist (SNO NPCCHH) | Human Health | Gujarat |
| 2 | Dr. Kashmir Singh | State Nodal Officer (NPCCHH, NRCP, NIDDCP) | Human Health | Haryana |
| 3 | Dr. Abhaya Kumar Saxena | Senior Scientific Officer, MP Pollution Control Board | Environment | Madhya Pradesh |
| 4 | Ravindr Mani Tripathi | Deputy Conservator of Forest | Forest and Wildlife | Madhya Pradesh |
| 5 | Shri.Nand Kishor Vyanktesh Kale | Deputy Director, Forest Department | Forest and Wildlife | Maharashtra |
| 6 | Smt.G.B.Rekha Banu | Dy. Conservator of Forests | Forest and Wildlife | Telangana |
| 7 | Dr. Ng. Ibotombi Singh | Director, Veterinary & A.H. Services, Government of Manipur | Animal Health | Manipur |
| 8 | Dr. H Kylla | Senior A.H & Veterinary Office | Animal Health | Meghalaya |
| 9 | Dr. Ketholelie Mere | Farm Manager CBF Lerie, Animal Husbandry Department | Animal Health | Nagaland |
| 10 | Dr. S. Parthsarthy | RO, ADRI,Phulnakhara,Cuttack, Animal Husbandry Department | Animal Health | Odisha |
| 11 | Dr. Muneer Mohammad | District Epidemiologist and Nodal Officer for One Health | Animal Health | Punjab |
| 12 | Dr. Alka | Veterinary officer | Animal Health | Punjab |
| 13 | Dr. Lenin Bhatt | Senior Veterinary Officer | Animal Health | Rajasthan |
| 14 | Dr. Ajan M.J. | Assistant Director - Medical | Human Health | Kerala |
| 15 | Namita Neelkanth | National Rabies Control Programme | Human Health | Madhya Pradesh |
| 16 | Dr. Sandeepan Mukherjee | Scientific Officer & Head, Department of Virology, Haffkine Institute | Human Health | Maharasthra |
| 17 | Prof. Khuraijam Ranjana Devi | Professor & Head, RIMS and Regional Coordinator, NOHPPCZ | Human Health | Manipur |
| 18 | Dr.Iadalang Lyngdoh | State Nodal Officer, IDSP and NRCP | Human Health | Meghalaya |
| 19 | Dr. Pachuau Lalmalsawma | State Nodal Officer, IDSP | Human Health | Mizoram |
| 20 | Dr. Debdutta Bhattacharya | Scientist-D, ICMR-RMRC | Human Health | Odisha |
| 21 | Dr. Niranjan Mishra | Director of Public Health, Government of Odisha | Human Health | Odisha |
| 22 | Dr. Achukatla Kumar | Consultant, ICMR-RMRC Port Blair | Human Health | Andaman and Nicobar |

