



Proceedings of

2-Days Stakeholder Consultative Workshop for Implementation
of Public Health Emergency and Disaster Management (PHEDM)
Tier-III Capacity Enhancement

Monday – Tuesday,
24-25 April 2023
ITC Maurya, New Delhi

Organized by

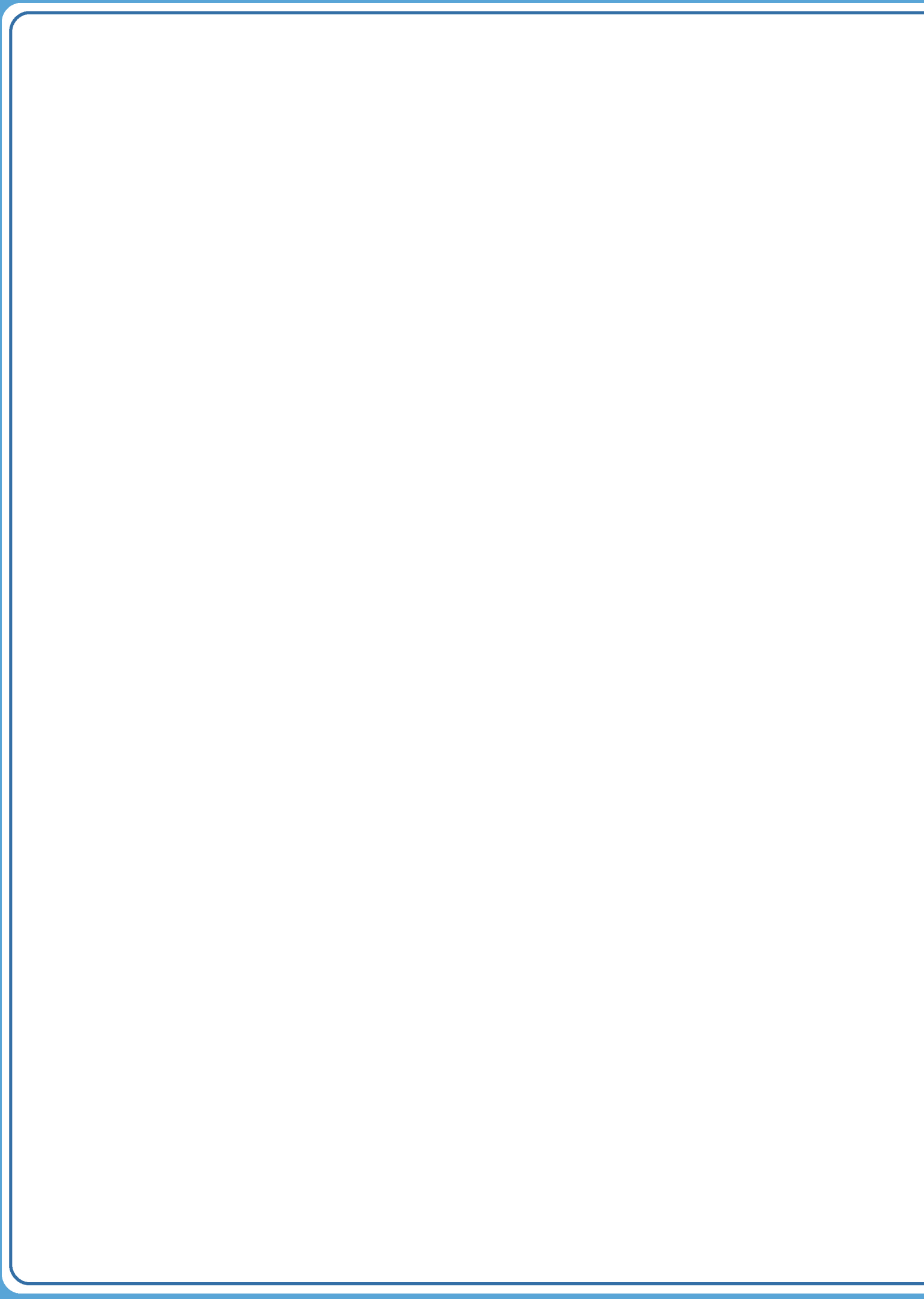
National Institute of Disaster Management (NIDM)
Ministry of Home Affairs (MHA),
Government of India (GoI)

and

National Centre for Disease Control (NCDC)
Directorate General of Health Services (Dte.GHS),
Ministry of Health and Family Welfare (MoHFW),
Government of India (GoI)

In collaboration with

U.S. Centers for Disease Control and Prevention (CDC),
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राजेन्द्र रत्नू, भा. प्र. से.
कार्यकारी निदेशक

Rajendra Ratnoo, IAS
Executive Director



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Foreword

Strengthening the management of public health emergencies and disasters in India is the focus of the transformation journey that we have been on together. We have already come a long way, and we still have further to travel. In the coming year, we will continue to learn, change and listen.

During a public health emergency and disaster management, it is very crucial to have a multi-sectoral, multi-layered, multi-agency coordination, information sharing and partnership. As there are multiple stakeholders involved in public health emergency and disaster management hence the implementing agencies should provide stakeholders with timely, relevant, understandable, and accessible information, and consult with them in a culturally appropriate manner, which ensures transparency leading to an increase in partners' ability to work effectively. Every country needs a system for responding to emergencies and managing the emergency response.

The Tier-III training package for Public Health Emergency and Disaster Management which is a part of 5 tier approach will provide a platform for public health and disaster management professionals working together to build, sustain and improve the country's capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.

I must congratulate Prof. Surya Parkash and his entire team at NIDM, organizing team from NCDC and CDC on their effort to bridge the first-mile gap between public health and disaster management. Equity, inclusivity, and coherence are goals as well as principles and only in applying them consistently and rigorously in the design and operations of the Public Health Emergency and Disaster Management systems at all levels, and monitoring their application, will we achieve the outcomes we seek. This workshop brought multi-sectoral stakeholders and experts under one umbrella and provided an opportunity to discuss on strengthening Public Health Emergency and Disaster Management (PHEDM) capacity-building initiatives in India.

Rajendra Ratnoo



Preface

I am delighted to present the workshop report for the Proceedings Workshop, a 2-Day Stakeholder Consultative Workshop for the Implementation of Public Health Emergency and Disaster Management (PHEDM) Tier-III Capacity Enhancement. This report encapsulates the knowledge, insights, and collaborative efforts of a diverse group of stakeholders who came together to address the critical issue of enhancing Tier-III capacity in public health emergency and disaster management.

In today's world, the increasing frequency and complexity of public health emergencies and disasters necessitate robust and comprehensive preparedness and response systems. As we have witnessed, such events can have devastating consequences, affecting lives, communities, and economies. It is therefore imperative that we enhance our capacity to effectively address these challenges and mitigate their impact.

The workshop discussions centered around identifying the challenges and gaps in Tier-III capacity, exploring opportunities for improvement, and formulating actionable recommendations. Through collaborative and participatory approaches, participants delved into a range of topics, including risk assessment and early warning systems, resource allocation, interagency coordination, community engagement, and capacity-building initiatives.

The findings and recommendations captured in this report represent the collective wisdom and expertise of the workshop participants. They offer a roadmap for all stakeholders to guide their future actions, policies, and investments in enhancing Tier-III capacity. It is our hope that these recommendations will foster collaboration, innovation, and continuous improvement in public health emergency and disaster management.

Prof. Surya Parkash



Preface

Public health emergencies and Disasters – often being the two sides of the same coin – have resulted in devastating consequences on communities, economies, and well-being of people. The need to be prepared and capable of responding to such crises is therefore of utmost importance. PHEDM Tier-III activities are crucial in ensuring that our response efforts are efficient, coordinated, and effective especially so when emergencies are becoming increasingly complex in the modern times.

During the management of health emergencies and disasters, it has been observed that disaster professionals, frontline workers, and middle-level managers' involvement is critical, along with that of leadership from District/ State and National Level Officials and the involvement of Civil Society. This is particularly crucial in early detection and timely response to public health emergencies and disasters. Hence, a capacity enhancement to build our country's resilience towards public health emergencies & Disaster Management must be our top priority.

The Stakeholder Consultative Workshop is a step forward towards a collective effort in enhancing capacity to implement PHEDM Tier-III activities, with a focus on capacity assessment, capacity building, collaboration and coordination, resource mobilization, monitoring and evaluation, policy and advocacy, and community engagement. Combined efforts will result in a more robust and effective response to public health emergencies and disasters, ultimately safeguarding the health and well-being of our communities.

A handwritten signature in black ink, appearing to read 'Himanshu Chauhan', with a small red mark at the end.

Dr Himanshu Chauhan



Preface

A consequence lessons from the COVID pandemic and other emergencies is that individual training and capability is not the same as institutional capacity. Moreover, a sustained capacity development is essential to ensure that everyone knows the system (plan, procedures, and policies) what to do when there is an emergency. In addition, competent individuals are necessary but not sufficient. Perhaps, individuals are promoted, retire, transfer, and forget. The institutional knowledge is the accumulation of knowledge, skills and capability that is independent from the individuals holding the positions. It involves onboarding (bringing in new employees), development (training individuals to the next level of skills, succession planning (enabling seamless transitions between individuals), integration (enabling individuals and positions to work together) and supplementation (employing outside services to fill gaps that are not internally available.)

The ability to detecting and respond locally to public health threats has been needed for generations. However, as the world becomes more interconnected, countries are realizing an increased need to prepare for public health threats from across the globe. The realization has increased the demand of strengthening a robust, scalable, and sustainable Public Health Emergency and Disaster Management (PHEDM) tiered capacity development programme starting from the community level to the policy group. The PHEDM is an emergent field of practice that draws on specific sets of knowledge, techniques, and organizing principles found in the fields of public health and disaster management that are necessary for the effective management of complex health events and emergencies with serious health impacts. The program team is currently in the process of developing high-quality, engaging training courses and programs to ensure that all emergency responders' staff are prepared to apply their skills and expertise to respond effectively. The PHEDM capacity development targets a diverse audience focusing on preparing, responding, recovering, and adapting to various public health emergencies and disasters.

The PHEDM-PDP Tier-III training package plays a vital role in equipping individuals and organizations with the knowledge, skills, and strategies necessary to effectively navigate the complexities of emergency response and disaster management. The curriculum is designed to blend evidenced-based knowledge with practical application, drawing on real-world case studies and interactive exercises to enhance learning and problem-solving abilities. This training empowers healthcare professionals, public health officials, emergency responders, including law enforcement, firefighters, and decision makers to make informed decisions, coordinate resources, and provide essential services during crises. Through the Tier III training, participants will delve into various aspects of PHEDM, including risk assessment, emergency planning, incident response systems, crisis communication, resource allocation, community engagement, psychological support, and post-disaster recovery.

This workshop sets the stage for a comprehensive and dynamic series of PHEDM trainings, designed to address the diverse needs and challenges faced by individuals and organizations involved in emergency response and disaster management. This report is not the culmination joint efforts but rather the beginning of a journey towards building more prepared, proactive, and resilient systems. Implementing the recommendations outlined in this report will require sustained commitment, collaboration from all stakeholders. It is only through collective action that we can make a lasting and positive impact on public health emergency and disaster management.



Dr Rajeev Sharma

Organising Team

Patrons

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- Prof. (Dr) Atul Goel, DGHS & Director, NCDC, Dte.GHS, MoHFW, Gol
- Dr Meghna Desai, Country Director, CDC, Country Office, India

Organising team

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- Mr Neeraj Sinha, FHI360
- Mr Manoj, Communication Consultant, FHI360
- Mr Dalveer Singh, MTS, VHS-CDC, India

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Abbreviations

CBRN	Chemical, Biological, Radiological and Nuclear
CBO	Community-Based Organisation
CDC	Centers for Disease Control and Prevention
Dte.GHS	Directorate General of Health Services
DGHP	Division of Global Health Protection
DM	Disaster Management
DRR	Disaster Risk Reduction
EMT	Emergency Medical Teams
EOC	Emergency Operations Centre
EWS	Early Warning Signals
FETP	Field Epidemiology Training Program
FIMS	Foundational Incident Management System
GHSA	Global Health Security Agenda
GMRD	Geo-meteorological Risks Management Division
GoI	Government of India
HEOC	Health Emergency Operations Center
HHS	Health and Human Services
HR	Human Resources
ICMR	Indian Council of Medical Research
IDSP	Integrated Disease Surveillance Programme
IHR	International Health Regulations
IMS	Incident Management System
IRS	Incident Response System
MHA	Ministry of Home Affairs
MoHFW	Ministry of Health and Family Welfare
NCDC	National Centre for Disease Control
NDMP	National Disaster Management Plan
NDRF	National Disaster Response Force
NELS	National Emergency Life Support

NEMT	National Emergency Medical Team
NHSRC	National Health Systems Resource Centre
NIDM	National Institute of Disaster Management
NIHFW	National Institute of Health and Family Welfare
NPDM	National Policy on Disaster Management
PHE	Public Health Emergency
PHEM	Public Health Emergency Management
PHERC	Public Health Emergency Response Centre
PHEDM	Public Health Emergency and Disaster Management
PHEDM-PDP	Public Health Emergency and Disaster Management – Professional Development Programme
PHEOC	Public Health Emergency Operation Centre
PM-ABHIM	PM Ayushman Bharat Health Infrastructure Mission
RCCE	Risk Communication & Community Engagement
RRT	Rapid Response Team
SHOC	Strategic Health Operations Center
SDGs	Sustainable Development Goals
SFDRR	Sendai Framework for Disaster Risk Reduction
SOP	Standard Operating Procedure
TWG	Technical Working Groups
U.S.	United States
USDMA	Uttarakhand State Disaster Management Authority
WHO	World Health Organization



Summary

A 2-day “Stakeholder Consultative Workshop for Implementation of Public Health Emergency and Disaster Management (PHEDM) Tier-III Capacity Enhancement” was held on 24-25 April 2023 in New Delhi, India. This workshop was a joint initiative of the National Institute of Disaster Management (NIDM), Ministry of Home Affairs (MHA), Government of India (GoI) and National Centre for Disease Control (NCDC), Directorate General of Health Services (Dte.GHS), Ministry of Health and Family Welfare (MoHFW), GoI, in collaboration with U.S. Centers for Disease Control and Prevention (CDC), Country Office India.

The objectives of this 2-day Stakeholder Consultative Workshop were to provide insights on the training package on PHEDM Tier III and receive inputs from various stakeholders. It was also aimed to strengthen the multisectoral, multidisciplinary, and multi-layered coordination for PHEDM and develop a capacity-building plan for PHEDM Tier III training in GoI priority states (Maharashtra, Karnataka, Sikkim, Gujarat, Jharkhand, Nagaland, Puducherry, Rajasthan, West Bengal, Mizoram, Uttarakhand).

The 2-day Stakeholder Consultative workshop provided an opportunity to gather input and feedback from various stakeholders and experts from different regions and tailor the training program to meet each state’s unique needs and challenges. It also helped build consensus and ownership among all stakeholders, which is critical for successfully implementing the training program across selected states.

The inaugural session was followed by three technical sessions besides a group discussion on identifying gaps and challenges in PHEDM and a concluding session on the formulation of a capacity enhancement plan. The technical sessions were on Overview of Capacity Building Programs on Public Health Emergency and Disaster Management; PHEDM Tier-III Training Program- Overview and Experience Sharing and Strengthening PHEDM Capability in Terms of Human Resource (Staff), Infrastructure (Stuff), and Systems.

The enthusiastic participation of key stakeholders from national and state levels facilitated the consultative workshop to successfully achieved its main agenda to develop a roadmap and capacity-building plan to implement PHEDM Tier III training in GoI-selected states. The representatives from the states showed a strong and urgent desire to implement the PHEDM Tier III training in their respective states.

All stakeholders appreciated the NIDM, NCDC and CDC initiative of enhancing capacity at all levels through a five-tiered approach. It was underscored that implementing all five tiers simultaneously is not feasible. NIDM and NCDC suggested expanding this training initially in the first few selected priority States/UTs and later rolling it out countrywide based on the availability of resources and critical needs.

The workshop was privileged with the presence, guidance and visionary words of distinguished dignitaries and speakers, namely, Sh Ajit Seth (IAS), Former Cabinet Secretary, Gol; Dr Anil Kumar, Additional DGHS, MoHFW, Gol; Sh Rajendra Ratnoo (IAS), Executive Director, NIDM, MHA, Gol; Dr Sujeet K Singh, Principal Advisor (PH), NCDC; Dr Pradeep Khasnobis, DDG (DM Cell), MoHFW, Gol; Prof. Surya Parkash, Head CBRN, EOC and GMRD, NIDM, MHA, Gol; Dr Dheeraj Shah Director, NIHFW; Dr Runa Gokhale, Associate Director for Science and programme, CDC-India; Dr Himanshu Chauhan, Joint Director and Inchagre, IDSP, NCDC; Dr Meera Dhuria, Joint Director and Inchagre, IDSP, NCDC; Dr Dharmesh Lal, Scientist – E, ICMR; Dr Rajeev Sharma, PHS & Lead-EM, DGHP, U.S. CDC-India and Dr A. C. Dhariwal, Former Director, NCDC, Dte.GHS, MoHFW, Gol.

About 103 participants, involving state nodal officers of Health and Disaster Management Departments from 23 States/Union Territories, including priority states identified under the “Pradhan Mantri - Ayushman Bharat Health Infrastructure Mission (PM-ABHIM)”, attended the event.

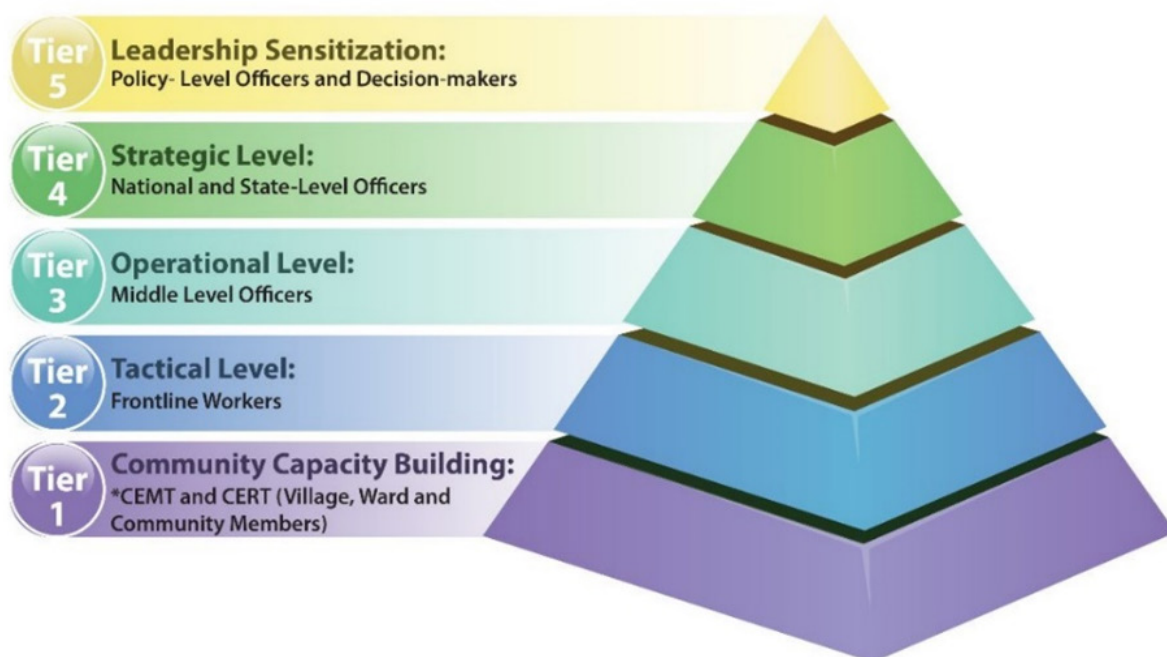
Background

The swift and widespread outbreaks of infectious diseases and hazards have highlighted the interconnectedness of nations across the globe, underscoring the significance of enhancing the capacities of Public Health Emergency and Disaster Management (PHEDM) to mount an effective response. The increasing frequency and severity of Public Health Emergencies (PHEs) and disasters recognized the need for a robust and comprehensive preparedness and response system. The system should be capable of addressing multiple hazards and layers of emergencies and utilize a coordinated, multisectoral approach to manage such exigencies effectively.

To acknowledge the need for a robust multi-hazard, multi-layered preparedness and response system that employs a multisectoral approach to manage emergencies and disasters, the Government of India (GoI) launched Pradhan Mantri – Ayushman Bharat Health Infrastructure Mission (PM-ABHIM) scheme. As a component of the scheme, 15 Health Emergency Operation Centers (HEOCs) are being proposed to enhance the health system's ability to respond effectively to potential pandemics and disasters. To achieve this, the capacity of human resources must be fortified to manage the HEOCs and other supportive systems.

Public Health Emergency and Disaster management cannot be viewed solely in terms of local, national, or public management obstacles; an integrated framework involving all stakeholders is essential. Envisioning the need and significance to bring public health emergency and disaster management on a single platform, three renowned institutes/organizations viz. National Institute of Disaster Management (NIDM), Ministry of Home Affairs (MHA), Government of India (GoI); National Centre for Disease Control (NCDC), Directorate General of Health Services (Dte.GHS), Ministry of Health and Family Welfare (MoHFW), Government of India (GoI) and U.S. Centers for Disease Control and Prevention (CDC), Country Office India collaborated and envisaged a five-tiered approach for capacity enhancement. The goal is to augment the comprehensive 360-degree capabilities of the community to decision-makers in managing PHEs and disasters.

In this regard, a Tier III capacity-enhancement training package has been developed in Tamil Nadu and validated in Uttarakhand to augment the capacity of health and non-health stakeholders dealing with health emergencies and disasters. The successful implementation of the Tier III training package forges the path to its expansion across other states.



*Community Emergency Management Team and Community Emergency Response Team

Proposed Five-Tiered Approach for PHEDM

To scale up the Tier III capacity enhancement programme to other GoI priority states, a 2-day **“Stakeholder Consultative Workshop for Implementation of Public Health Emergency and Disaster Management (PHEDM) Tier-III Capacity Enhancement”** was organized on Monday-Tuesday, 24-25 April 2023 at ITC Maurya, New Delhi.

Objectives

The 2-day Stakeholders Consultative workshop aimed to scale up the PHEDM Tier III training to priority states. It was directed towards sensitizing, institutionalizing, and promoting the exchange of information, knowledge, and innovation on understanding PHEDM with the following objectives:

- To strengthen the multisectoral and multi-layered coordination mechanism and integrated PHEDM Tiered approach for multidisciplinary management.
- To provide insights on the training package on PHEDM-PD Tier III and receive inputs from various stakeholders.
- To develop a roadmap and capacity-building plan for PHEDM-PDP Tier III in GoI-selected states.

Inaugural Session



Inaugural session dignitaries (Left to right): Dr Runa Hatti Gokhale, Associate Director for Science and Programs, DGHP, CDC-India; Dr Sujeet Singh, Principal Advisor- Public Health, NCDC, Dte.GHS, MoHFW, Gol; Dr Anil Kumar, Addl. Director General, Dte.GHS, MoHFW, Gol; Shri Ajit K. Seth, IAS (Retd.), Former Cabinet Secretary, Gol; Shri Rajendra Ratnoo (IAS), Executive Director, NIDM, MHA, Gol; Prof. Surya Parkash, Head EOC, CBRN & GMRD, NIDM, MHA, Gol and Dr Himanshu Chauhan, Joint Director & Incharge, IDSP, NCDC, MoHFW, Gol



Dr Himanshu Chauhan welcomed the participants and provided an overview of the objectives of the consultative workshop for implementing Public Health Emergency and Disaster Management (PHEDM) Tier III capacity enhancement training. He emphasized that the workshop would concentrate on bolstering capabilities to manage PHEs and disasters. He highlighted the necessity of establishing a multisectoral, multi-layered, and multi-agency coordination framework for information sharing and partnerships, given the involvement of multiple

stakeholders in public health emergency and disaster management. He added that Tier III training is crucial in ensuring that the response efforts are efficiently coordinated and effective, particularly during complex emergencies. Dr Chauhan also emphasized the workshop's aim to create a roadmap and a capacity-building plan for PHEDM Tier III training in priority states. He referred to the Ayushman Bharat Health Infrastructure Mission (PM-ABHIM), which aims to strengthen the health infrastructure's capacity. Dr Chauhan highlighted the significance of health emergency and disaster responders, both significant players in emergencies, and the potential for them to work together, utilizing their expertise in their respective areas and collaborating towards a common objective of responding together. He said this collaboration was intended to be achieved at the end of the two-day stakeholder consultation.



Lamp Lighting - A symbolic expression of "Knowledge Principles"



Dr Runa Gokhale emphasized the risks of public health threats, which can undermine a society's social, economic, and political functions. She said that mitigation of public health risks requires technical skill and robust coordination across multiple sectors. Dr Gokhale mentioned that the COVID-19 pandemic had escalated the need to work together and emphasized

strengthening the coordination. She also underlined the need to effectively empower relevant stakeholders to combat emergencies and disasters. Dr Gokhale appreciated the efforts of the GoI to bolster the capacities of the health sector to respond to future public health threats effectively. She also provided insights on the commitment of CDC-India to support the GoI's endeavours to create a healthier and more resilient India. Further, she said that the 2-day Stakeholder Consultative workshop would create a strong bond between us and provide the opportunity to learn from each other. The discussions and exchange of ideas are expected to generate synergies that will contribute to developing a blueprint for implementing the PHEDM Tier III training package in other states.

Prof. Surya Parkash provided insights on some of the initiatives and interventions introduced upon collaboration between NCDC, NIDM, and CDC-India. The initiatives and interventions highlighted include the constitution of three Technical Working Groups (TWG) for capacity building, infrastructure and system, Weekly Webinar Series, the development of various capacity



building training modules focusing on the community to policymakers and the establishment of Public Health Emergency Response Centre (PHERC). Further, he provided insights into the Incident Response System (IRS) and Incident Management System (IMS), which helps in command and collaboration during emergencies and disasters. He advocated adopting an integrated approach to pursue the mandates of international and national frameworks such as the Sendai Framework for Disaster Risk Reduction (SFDRR); Sustainable Development Goals (SDGs); National Disaster Management Plan (NDMP), and frameworks related to climate change. Further, he

added that besides the face-to-face training, efforts would also be made to develop online programs and self-learning modules to reach the last mile connectivity in terms of capacity enhancement. Prof. Parkash reiterated the goals of the National Policy on Disaster Management (NPDM) to create a culture of risk assessment, prevention, mitigation, preparedness, efficient response, and recovery, leveraging state-of-the-art technologies and an inclusive, collaborative, and systems-based approach. He emphasized India's G20 Presidency theme, "*Vasudev Kutumbkam*", and said it had provided the opportunity to address issues beyond national borders and to collaborate and share initiatives.

Dr Sujeet Kumar Singh, in his address, highlighted that the world is struck with diseases and various types of disasters like floods, earthquakes, cyclones, etc. Hence, we need a proactive response; for this, we need to come together and strengthen the system to deal with public health threats and disasters. Further, he said that a coordinated effort is crucial



for effective emergency management, and the One Health approach can play a significant role in this regard. It requires a multisectoral and interdisciplinary approach that recognizes the interconnectedness of human, animal, and environmental health. Dr Singh emphasized that the development of Standard Operating Procedure (SOP) and protocol, along with trained human resources, will help to ensure that emergency response efforts are streamlined and effective. Additionally, regional and global collaborations can help to enhance multistakeholder coordination and cooperation, which is necessary for effective emergency management.



Shri Rajendra Ratnoo, IAS emphasized the need for investment in capacity building, which can create a robust system to save more lives during emergencies. He also mentioned that an apathetic attitude is the biggest capacity-building challenge. Shri Ratnoo emphasized that capacity

building should be a continuous process and not a one-time activity involving all stakeholders, including government officials, NGOs, and the general public. He cited the example of a village in the Cuddalore district of Tamil Nadu where the community was already sensitized about facing disasters. This helped that village largely escape from the consequences of the Tsunami in 2004. He said it is crucial to recognize the link between climate change and disaster as climate change has increased the frequency and intensity of natural disasters. Further, he provided insights on the lessons from the COVID-19 pandemic and said it had taught us the importance of having a multisectoral approach to Disaster Risk Reduction (DRR). He emphasized partnerships in peacetime to be better prepared during a disaster. Further, he elucidated that the PHEDM tiered approach can help create a multi-layered capacity for multiple hazards, which is crucial for effective risk management. He concluded his address by mentioning that by investing in capacity building today, we can prepare for a more resilient future.

Dr Anil Kumar, urged the delegates to learn from past events for a better future. Dr Kumar emphasized the importance of community involvement in emergency response, citing examples such as the Bhuj earthquake and the cloud burst in Leh, Ladakh, where communities took immediate



action before external agencies arrived. He also highlighted the effectiveness of the Integrated Disease Surveillance Programme (IDSP) section during the COVID-19 pandemic. Further, he emphasized the significance of working together and said that the COVID-19 pandemic had demonstrated the advantages of a collaborative approach, where all departments were united in their response efforts. Dr Kumar emphasized the need for well-prepared planning and readiness to combat future threats, urging stakeholders to think ahead by a decade to keep pace with future challenges.



Sh. Ajit K. Seth, IAS (Retd.), in his keynote address, stated that the importance of the subject discussed today is self-evident. He expressed that in times of emergency or disaster, lessons are learned at various levels, such as individual, community,

political, and global. He further highlighted that the workshop provides an opportunity for introspection, identifying gaps, and formulating strategies to enhance our capacities. He emphasized advocating for a One Health approach to achieve better health outcomes. He stressed the need to converge efforts towards multi-layered preparedness to tackle public health emergencies and disasters effectively. Additionally, he mentioned the need to invest in health infrastructure, health regulations, and psychological and social health while highlighting the importance of effective leadership during emergencies. He concluded his address by urging to create awareness at all levels.

Dr Sanket Kulkarni thanked all the guests, participants, and the organizing team for making this workshop successful. He emphasized the significance of this platform as it provides a crucial opportunity for various agencies to share their insights and collaborate to strengthen PHEDM capabilities. He



He reiterated that the workshop would enable a better understanding of the areas of work and enhance the scope of collaboration to deal with emergencies and disasters.

Key Points

- Investing in capacity building could create a robust system that will save more lives.
- Promote the training of the next generation of public health leaders at all levels.
- To adopt an integrated approach to achieve the mandate of national and international frameworks for PHEDM.
- Learning from past experiences and strengthening the collaboration and coordination among the line departments against public health emergencies and disasters.
- It was underlined that an inadequate attitude is the biggest challenge for capacity building. We need to adopt a holistic approach and better coordination at all levels.
- We need to learn from past events about the gaps and prepare ourselves for future threats.
- There is a need to create awareness at the multisectoral and multi-layered levels for PHEDM.

Technical Session I: Overview of Capacity Building Programs on Public Health Emergency and Disaster Management



Co-chairs of the Technical Session I (Left to right): Dr Runa Hatti Gokhale, Associate Director for Science and Programs, DGHP, CDC-India; Shri Rajendra Ratnoo (IAS), Executive Director, NIDM, MHA, GoI and Dr Sujeet Singh, Principal Advisor- Public Health, NCDC, Dte.GHS, MoHFW, GoI

Speakers of the session:

- Prof. Surya Parkash, Head EOC, CBRN & GMRD, NIDM, MHA, GoI
- Dr Himanshu Chauhan, Joint Director & Incharge, IDSP, NCDC, MoHFW, GoI
- Dr Pradeep Khasnobis, DDG (DM Cell), MoHFW, GoI
- Dr Dharmesh Lal, Scientist-E, ICMR, MoHFW, GoI

Prof. Surya Parkash discussed "Integrating Public Health Emergencies and Disaster Management- An Overview of the Five-Tiered Capacity Building Programme". He provided insights into the vulnerability of India to various disasters and public health emergencies. He emphasized the need to integrate public health emergency and disaster management. Further, Prof. Parkash highlighted the mandates under Disaster Management Act 2005 and elucidated that every state should prepare a Disaster Management Plan, including measures to be taken for capacity-



building and preparedness. He also discussed the mandate given to the NIDM to aid the State Governments and State training institutes in the formulation of State level policies, strategies, disaster management framework, and any other assistance as may be required by the State Governments or State training institutes for capacity-building of stakeholders, Government including its functionaries, civil society members, corporate sector, and people's elected representatives. Prof. Parkash also discussed the Capacity Development levels, like enabling environment, organizational, and individual levels. Further, he highlighted the steps of capacity development processes and components of capacity development like Training, Education, Research Awareness, and Advocacy. Prof Parkash also provided insights on the fund available for preparedness and capacity building under National Disaster Response Fund. In summary, he urged to promote a shared vision of active engagement of the diverse stakeholders from public health and disaster management to enhance coordination and reduce risks related to public health emergencies and other disasters.

Dr Himanshu Chauhan

delivered a talk on "Capacity Building Programme for Management of Public Health Emergencies". He highlighted Public Health Emergency (PHE) and Disaster Management (DM) as the ever-evolving needs of society. Emphasizing capacity building, Dr Chauhan said that it is the process of developing and strengthening the skills, instincts, abilities, processes and



resources that organizations and communities need to survive, adapt, and thrive in a fast-changing world. Further, he said that an essential ingredient in capacity building is a transformation that is generated and sustained over time from within; transformation of this kind goes beyond performing tasks to changing mindsets and attitudes. He also highlighted the importance given to capacity building in the international and national frameworks, such as International Health Regulation (IHR) 2005, Sendai Framework, Prime Minister's 10-point agenda and Prime Minister- Ayushman Bharat Health Infrastructure Mission (PM-ABHIM). Further, Dr Chauhan discussed the objectives of PHEDM capacity development and said it is "Developing self-reliance in understanding risks associated with hazards & vulnerability, planning & reducing risk and preparing for the residual risk of disasters, with maintaining the ability of resilience for recovery".

Dr Pradeep Khasnobis

discussed the “Capacity building of Emergency Medical Teams (EMTs)”. He highlighted the changing disaster epidemiology and India’s vulnerability to disasters and public health emergencies and emphasized the need for the EMT initiative. Further, he highlighted the

policy mandates for disasters and public health emergencies and the operational issues with the existing Rapid Response Team (RRT) deployment system. Some of the operational issues highlighted by the speaker include ad-hoc arrangements, lack of pan India standard framework for EMT identification and capacity building, lack of uniformity in the composition of RRTs, time loss in RRT deployment due to delays in reporting of events and so on. Further, he discussed the journey of India’s National Emergency Medical Team (NEMT) initiative and said a draft Guidance Framework And Operational Guidelines for NEMT is under preparation. Dr Khasmobis also elucidated the EMT supportive activities taken under the DM Cell of MoHFW, including pan-India capacity-building initiatives such as hospital preparedness for health emergencies for hospital administrators, management of public health emergencies for district health officers and psycho-social care in disaster settings. He also discussed the infrastructure projects under DM Cell, such as setting up of National Emergency Life Support (NELS) skill centres; tertiary and secondary level Chemical, Biological, Radiological and Nuclear (CBRN) medical management centers; Health Emergency Operation Centers (HEOCs) and self-contained container-based mobile hospitals. In conclusion, he emphasized capacity-building training and said the key to efficiency in disaster response lies in the effectiveness of training and constant re-training of NEMT.



Dr Dharmesh Lal discussed the current and future role of ICMR in capacity-building programmes. He discussed the lessons learned from COVID-19 Pandemic. Dr Lal mentioned the need for capacity building in terms of good inventory management, infodemic management, real-time data management, and modelling of

infectious diseases, for which activities on health research shall be taken up. Further, he

elaborated on the role of ICMR in capacity-building and said it plays a significant role in developing health research capacities. Highlighting the current capacity-building scenario, he said there are multiple stakeholders, such as NCDC, MoHFW, ICMR, NIDM and WHO India. Further, to strengthen the capacity-building programme, he urged to include motivational lectures for the health functionaries and maintenance of the essential services during epidemic/pandemic. Some of the recommendations flagged by the speaker include a national-level integrated uniform program, a specially designed capacity-building programme for Frontline workers (Rural and Urban), equal participation of the private sector and lab and emergency transport management to be part of the training curriculum

Key Points

- Coordination and collaboration are the keys to responding effectively to public health events and disasters.
- Recommended to have a shared vision of active engagement of the diverse stakeholders from public health and disaster management to enhance coordination and reduce risks related to public health emergencies and other disasters.
- Developing self-reliance in understanding risks associated with hazards & vulnerability, planning & reducing risk, and preparing for the residual risk of disasters, with maintaining the ability of resilience for recovery.
- Need exists for a national-level integrated uniform program, a specially designed capacity-building programme for Frontline workers (Rural and Urban), equal participation of the private sector, and lab and emergency transport management to be part of the training curriculum.
- In view of the changing disaster epidemiology and India's vulnerability to disasters and public health emergencies and the need for the EMT initiative shall be emphasized.
- Research activities in capacity building in terms of good inventory management, infodemic management, real-time data management, and modelling of infectious diseases, shall be taken up.

Technical Session II: Public Health Emergency and Disaster Management Systems



Co-chairs of the Technical Session II (Left to right): Prof. Surya Parkash, Head EOC, CBRN & GMRD, NIDM, MHA, GoI; Dr Senthilnathan, CIH Division, Dte.GHS, MoHFW, GoI and Prof. Sanjay Gupta, HoD Epidemiology, NHFW, MoHFW, GoI

Speakers of the session:

- Dr Rajeev Sharma, Public Health Specialist and Lead Emergency Management, Division of Global Health Protection (DGHP), CDC-India
- Dr Bimlesh Joshi, Health Specialist, Uttarakhand State Disaster Management Authority, Government of Uttarakhand
- Dr Kolandaisamy, Former Director of Public Health, Tamilnadu and Dr B. Premkumar, FHI360

Dr Rajeev Sharma provided insights on the Public Health Emergency and Disaster Management – Professional Development Programme (PHEDM-PDP) Tier-III Training. He emphasized the importance of Tier-III training and pointed out that the COVID-19 pandemic has made it clear that there



is a requirement to merge PHEDM into one cohesive system. Additionally, he drew attention to the collaboration between NIDM, NCDC, and CDC India to create and execute the PHEDM-PDP Tier-III training. This training aims to furnish participants with fundamental knowledge and principles pertaining to Public Health Emergency and Disaster Management, as well as its practical use in Incident Response System (IRS) and Incident Management System (IMS). Dr Sharma also talked about the content of the Tier-III training, including the intended audience and the specific goals of the training. He also talked about effectively implementing the Tier-III training in the states of Tamil Nadu and Uttarakhand, highlighting them as success stories.

Dr Bimlesh Joshi elucidated the success of PHEDM-PDP Tier-III training in Uttarakhand state. He talked about the fruitful partnership between health and disaster management authorities, facilitated by the training conducted in two cohorts - one in Garhwal Mandal and the other in Kumaon Mandal. Further, Dr Joshi elaborated on both the training. The first training took place in Dehradun for three days, where approximately 35 participants and 10 mentors from various sectors attended, including personnel from IDSP units of seven districts of Garhwal Mandal, epidemiologists, microbiologists, representatives from Uttarakhand State Disaster Management Authority (USDMA), Panchayati Raj Institute, Women Empowerment and Child Development Department, Red Cross, and Medical Colleges. All the participants gained valuable knowledge and skills from the course. Similarly, the second training was organized at Rudrapur and about 35 participants, including mentors from various sectors, participated and benefited from the course.



Dr Kolandaishamy and Dr B. Premkumar discussed their first-hand experiences regarding the effectiveness of the PHEDM-PDP Tier-III training and the successful



establishment of the Public Health Emergency Operations Centre (PHEOC) in Tamil Nadu. They provided a detailed account of the evolution of the Emergency Operations Centre (EOC) in Tamil Nadu, dating back to 1930 until the present day. They explained that the primary goal of the EOC is to gather, analyze, and disseminate comprehensive data necessary to respond to incidents and health crises daily. Additionally, the EOC is responsible for monitoring the response to infectious disease outbreaks using Early Warning Signals (EWS) and supporting districts during disease outbreaks. They also highlighted the benefits of providing State-level training on the Foundational Incident Management System (FIMS) specifically tailored to the context of the COVID-19 pandemic response for the EOC.

Key Points

- The trained staff are an essential requirement to manage public health emergencies and disasters.
- Capacity enhancement program like PHEDM Tier III is one of examples of a system that strengthen the capacity of health and non-health officials.
- PHEDM Tier III training aims to furnish participants with fundamental knowledge and principles pertaining to Public Health Emergency and Disaster Management, as well as its practical use in Incident Response System (IRS) and Incident Management System (IMS).
- The states should imbibe and practice the concepts of PHEDM with the appropriate capacity-building programme.

Special Technical Session: Strengthening PHEDM Capability in Terms of Staff, Infrastructure (Stuff), and Systems



Co-chairs of the Special Technical Session (Left to right): Dr Dheeraj Shah, Director, NIHF; Dr Anil Kumar, Addl. Director General, Dte. GHS, MoHFW, Gol and Dr Meera Dhuria, Joint Director, NCDC, Dte. GHS, MoHFW, Gol

Speakers of the session:

- Prof. Surya Parkash, Head EOC, CBRN & GMRD, NIDM, MHA, GoI
- Dr Sanket Kulkarni, Joint Director, NCDC, Dte. GHS, MoHFW, GoI
- Dr Rajeev Sharma, Public Health Specialist and Lead Emergency Management, Division of Global Health Protection (DGHP), CDC-India

On 18th and 19th April 2022, a Stakeholders Meeting on Public Health Emergency Management was held, during which several recommendations were made. One of the suggestions was to establish three Technical Working Groups (TWGs) that would concentrate on various aspects of Public Health Emergency Management (PHEM). As per the recommendations, the DGHS approved the formation of the following three TWGs: Human Resources (HR) and Capacity Building, System Strengthening, and Infrastructure Development. Each TWG presented their findings in the session based on their respective focus areas.

Prof. Surya Parkash spoke on behalf of TWG on HR Capacity Building for Public Health Emergency and Disaster Management. The members of the group include:

Prof. Surya Parkash spoke on behalf of TWG on HR Capacity Building for Public Health Emergency and Disaster Management. The members of the group include:



- Prof. Surya Parkash, Head EOC, CBRN, and GMRD, NIDM, MHA
- Dr Himanshu Chauhan, Joint Director & In-charge IDSP, NCDC, MoHFW
- Dr Meera Dhuria, Joint Director and Head, NCD, NCDC, MoHFW
- Dr Pranay Verma, Joint Director, NCDC, MoHFW
- Prof. Manish Chaturvedi, Planning and Evaluation, NIHFW, MoHFW
- Dr Rajeev Sharma, Public Health Specialist and Lead-Emergency Management, CDC-India

Prof. Parkash discussed the status of HR Capacity development for PHEDM and highlighted the following points:

- Well-established systems with trained human resources and modern facilities for training and capacity development exist
- New technology of digitization, automation, online training, and capacity development is being adopted in several institutions
- The existing training programmes for healthcare workers don't focus on public health emergency and disaster preparedness and response.
- Currently, NIDM, NCDC, and CDC are collaborating to develop a dedicated training module on Public Health Emergency and Disaster Management
- Research on public health emergencies and disaster management lacking.

Some of the recommendations of the group include:

- Implementing the guidelines for managing biological disasters laid out in the NDMP should receive priority.
- Concerted, sustained efforts and investments in the public health and medical community, health infrastructure, and society at large will be critical to building robust systems responsive to public health emergencies and disasters.
- Given the increasing need and scope of work, human resources and their capacity building need to be reviewed.
- There is a need to have online training courses on various aspects like Foundational Course on PHEDM inter-alia Incident Response System-Management and Operational functions, RRT, PHEOC Development Package, Risk Communication and Community Engagement (RCCE).
- A certified PHEDM Programme need to be developed similar to FETP programmes.

Dr Sanket Kulkarni talked about Infrastructure for Public Health Emergency Management. The group is having following members:

- Dr Sunil Gupta, Principal Advisor, NCDC, MoHFW
- Prof. Surya Parkash, Head EOC, CBRN, and GMRD, NIDM, MHA



- Dr Himanshu Chauhan, Joint Director & In-charge IDSP, NCDC, MoHFW
- Dr Sanket Kulkarni, Joint Director of IDSP (NCDC)
- Dr Rajeev Sharma, Lead: Emergency Management and Public Health Specialist, CDC
- Dr Saurabh Dalal, NPO, WHO India

Dr Kulkarni explained the goals and objectives of the PHEOC and shared the status, including:

- Emergency Operations Centers (EOC) exist in the country and are in practice under NDMA.
- PHEM and PHEOC exist in the country and operation under Strategic Health Operations Center (SHOC), Control Room, Command Room, or War Room at the National level at MOHFW, NCDC and some States have recently established to handle the COVID-19 pandemic.
- The Government of India takes various initiatives towards developing the Health Emergency Operations Centre under the PM-ABHIM.

Some of the recommendations of the group include:

- New and innovative ways of providing medical services like telemedicine (use of information technology and related services to provide healthcare services virtually) need to be promoted.
- PHEOC development tool needs to be finalized.
- Consider the legal mandate of establishing EOCs, HR components, systems, plans, and capacity building.
- Cyber security must be given utmost importance to stop data theft and damage.

Dr Rajeev Sharma provided insights on the System strengthening for PHEDM. The group is having following members:

- Dr Swasticharan, Director EMR, DteGHS, MoHFW
- Dr Muzaffar Ahmed, Former member NDMA, DHS J & K)
- Dr Himanshu Chauhan, JD & In charge IDSP, NCDC
- Dr Sanjay Kaushal, Consultant, Medical Preparedness and Biological Disaster
- Dr Runa Gokhale, Associate Director, DGHP, CDC-India
- Dr Rajeev Sharma, Lead-EM & PHS, CDC India
- Dr Pavana Murthy, NPO, WHO India



Dr Sharma said there is a need to move from a reactive to a proactive approach. Further, he mentioned that we live in a global village; therefore, no one is safe until everyone

is safe. Dr Sharma highlighted the need to strengthen the system (plans, policies, and guidelines) for effective response.

Some of the recommendations to strengthen the system include:

- Coordination and collaboration between the health and disaster management institutions and pooling of plans, resources, and infrastructure to ensure an effective, unified response.
- Establishment of a dedicated PHEOC with close coordination and interoperability between EOC and PHEOC.
- Leverage international systems such as the Incident Management System for PHEM.
- Finalization of PHEOC development tool for use by the States and Districts.

Key Points

- To deal with the multi-hazard including public health events, strengthening of staff, infrastructure (stuff), and system are crucial.
- All three play very important roles and complement each other, hence to manage the public health emergency and disasters the key stakeholders need to collaborate and act to take the capacity enhancement program forward.
- The legal mandate of establishing EOCs, HR components, systems, plans, and capacity building shall be considered.
- A certified PHEDM Programme needs to be developed similar to the Field Epidemiology Training Programme (FETP).
- Need to have online training courses on various aspects like Foundational Course on PHEDM inter-alia Incident Response System-Management and Operational functions, RRT, PHEOC Development Package, Risk Communication, and Community Engagement (RCCE).
- Cyber security must be given utmost importance to stop data theft and damage.

Day 02: 25 April 2023

Day 02 activities started with the recap of the previous day's learnings, followed by the introduction of the participants. After the introduction, the Terms of Reference for the group discussion were briefed by Dr Himanshu Chauhan.

Group Discussion on Identification of Gaps and Challenges in PHEDM

The attendees were divided into four groups, with each group assigned a topic for discussion. Their main objective was to identify gaps and challenges related to the given topic. The groups and their topics are as follows:

Team 1 (Staff)	Team 2 (Stuff-infrastructure)	Team 3 (Systems)	Team 4 (Review of PHEDM Module)
Dr Urgen Sherpa	Dr Padma M. R	Dr Praveen Aswal	Dr Senthilnathan
Dr B.K Chawan	Dr Ramesh K Kaulgud	Dr Alka Sharma	Prem Mohan Srivastava
Mr Kunzang Bhutia,	Sh. Rakesh H Jainapur	Dr Deepa Meena	Vivek Kumar
Mr Karma Hissey Bhutia	Bahubali Kondali	Mr Brijender Singh	Bateswar Das
Mr Kishore Dutta	Dr Srividya	Dr Praveen Kumar Karn	Mukta Girdar
Mr Mukta Ram Deka	DR Srinivasa Rajamani Neeli	Mr Saurabh Kumar	Dr Roshan
Dr Bimlesh Joshi	Sri Sabyasachi Hota (OAS)	Col Dalbir Singh	Mr Ajay Dashiwal
Er Sarib Sahran (KAS)	Dr K. Kolandaswamy	Dr Anshu	Mr Sachin agarwal
Dr Nyanthung Kikon	DrJM Katira	Dr Amit Murari	Mr Baye lal
Dr Yogesh Malvi	Dr Nita Ray	Dr Rohit Kumar	Dr D Maji
Ms Ritu Mallick	Dr Pratheesh Maman	Amit Alok	Mr Suresh Deshmukh
Dr Dhramesh Lal	Ms Pallavi Luthra and Dr Suman Das	Mr Ajay Kumar (IDSP) and Ms Rita Malik	Mr P. M. Srivastav
MODERATOR: Dr Pranay, Dr Prem, Dr Rajat	MODERATORS: Dr Saurabh, Dr Priyanka, Mr Hari	MODERATORS: Dr Sanket, Dr Harjeet Kaur and Mr Anil	MODERATORS: Dr Meera, Dr Raju Thapa and Mr Manoj
FACILITATORS: Prof. Surya Parkash, Dr Himanshu Chauhan, Dr Rajeev Sharma, Dr AC Dhariwal			

The key recommendations of each group are as follows:

Staff

- Structured and tiered approach capacity building is needed from the community to the professional level, including sensitization of policy groups. Overwhelmingly, this initiative will support the graded response efforts of all sectors.
- Triage management training for medical officials with some focus on Disaster Management
- A Ready to Deploy force is needed during the surge therefore, a network of volunteers having the PHEDM skillsets is required in a war-footing need. All agreed to develop a network of volunteers ready to support the response during the crisis.
- Inter-departmental coordination (peacetime as well as activation time).
- Resource sharing among health, disaster, and other departments.
- Establishing a centre such as the Centre of Excellence (CoE) for quality control/ quality assurance of standardized training curriculum, adult learning testing and handholding/mentoring integrated public health emergency and disaster management training.

Infrastructure

- Establishing Public Health Emergency Operation Centre (PHEOC) at all levels based on the standard building and safety norms.
- During the discussion, a strong need was felt of strengthening the preparedness and response capabilities at National, State, and local levels. Moreover, everyone agreed to the potential of public health emergencies and disasters, such as pandemics, natural disasters, and manmade, can have significant impacts on communities. By establishing a Center for Excellence (CoE), for both public health preparedness and disaster management would further enhance preparedness and response capabilities. The center can develop strategies, protocols, and training programmes to ensure a timely and effective response to emergencies, saving lives and reducing the overall impact on public health. These centers will bring together experts and professionals from various disciplines related to public health emergency and disaster management. These experts can collaborate, share their knowledge, and develop best practices in the field. The centers can serve as a hub for research, analysis, and innovation, leading to the advancement of scientific understanding and the development of evidence-based strategies. Additionally, these centers can improve the capabilities of public health professionals, emergency responders, and other stakeholders involved in disaster management. Through workshops, courses, and simulations, the center can enhance the skills and knowledge of individuals at all levels, including frontline workers, managers, and policymakers. These centers can facilitate coordination and collaboration among these stakeholders. By serving as a central hub, the

center can help streamline communication, foster partnerships, and ensure a cohesive and integrated response. This can lead to improved resource allocation, reduced duplication of efforts, and enhanced overall effectiveness. Both Centers for Excellence can play a crucial role in shaping policies and guidelines related to public health emergency and disaster management. By conducting research, analyzing data, and assessing the effectiveness of interventions, the center can inform evidence-based policymaking. In addition, the center can advocate for the integration of disaster management principles into broader public health policies and strategies, promoting a proactive and comprehensive approach to preparedness. Overall, establishing two Centers for Excellence for public health emergency and disaster management will strengthen country's ability to respond to crises effectively, reduces the impact on public health, and promotes resilience in the face of emergencies. It will also serve as a hub for knowledge, collaboration, and capacity building, benefiting both immediate response efforts and long-term preparedness.

- There is a need to have a Centre of excellence at national-level apex institutes such as NIDM to ensure comprehensive standardised national benchmarks for developing the infrastructure like EOC/Control Rooms/HEOC/PHEOC/PHERC for command, control and management of emergencies or disasters in all sectors following the common minimum global standards for effective preparedness, response, and recovery efforts in the face of complex emergencies and disasters.
- Adequate finance for establishing and sustaining PHEOC/EOC.
- Interoperability of PHEOCs with Disaster Management EOCs.
- Trained HR for PHEOC and dedicated training curriculum to enhance their capacity.

System

- Timely updation of the plans, guidelines, and training curriculum as per the need.
- Upscale Volunteer Performa for PHEDM. Provision for recognition and award to encourage people to join the initiative.
- PHEDM training curriculum for response forces.
- Dos and don'ts for each disaster should be incorporated into the school curriculum.

Review of PHEDM Tier III module

- Incorporated public health event.
- Define public health emergency in terms of
 - Enhanced surveillance with or without accompanying resources
 - Urgent information with urgent response
 - Judicious use of available resources.

- Relationship between disasters and public health emergencies.
- Focus on multi-hazard is the need of the hour.
- Infographic representation of EOP for quick learning.
- Connectivity between IMS and IRS.
- The small core group for enhancement of the module.

Group discussion, exercise, and presentations from the groups



Concluding Session: Formulation of Capacity Enhancement Plan

Concluding remarks were given by Prof. Surya Parkash (NIDM), he congratulated the participants for the completion of the two-day consultative workshop and appreciated their active participation.

After spending two days discussing the PHEDM Tier III Capacity Enhancement Program, it is mandated to carry forward the suggestions/feedback and decisions into action by upscaling the said program to other states.

To successfully implement public health emergency and disaster management training, it is crucial to engage in careful planning, foster collaboration, and consistently evaluate and update the training programs. The roadmap discussed during the session to adequately equip individuals to respond to emergencies and disasters includes the following:

- Needs Assessment
- Curriculum Development
- Training Material Development
- Training Delivery
- Evaluation and Feedback
- Ongoing Training and Updates
- Collaboration and Coordination
- Review and Revision
- Sustainability and Continuity

In the end, it was suggested that PHEDM Tier III training would be conducted in a phased manner based on the willingness and relevance needs of the state. Furthermore, it was suggested that the program will be organized in a phased manner. Implementing public health emergency and disaster management training programs in a phased manner allows for careful planning, refinement, and scaling up while ensuring sustainability and continuous improvement. It requires close collaboration and coordination among national and state stakeholders. Also, a commitment to monitoring and evaluation to ensure that the training programs are effective in building the necessary capacity for managing public health emergencies and disasters in all states of India.

Implementation of PHEDM training programs throughout a country will strengthen the capability and resilient public health workforce and other stakeholders to respond to emergencies and disasters collectively and effectively.

In the end, he thanked the organizing team (NIDM, NCDC, CDC) for their immense support and seamless efforts to make this event successful.

Dr Himanshu Chauhan (NCDC) and Dr Rajeev Sharma (CDC-India) also thanked the participants and the team members for their contributions.

The two-day consultative workshop ended with the valedictory session with the distribution of the certificates to all the esteemed participants.



Key Points

- Implementation of PHEDM training programs throughout a country will strengthen the capability and resilient public health workforce and other stakeholders to respond to emergencies and disasters collectively and effectively.
- To successfully implement public health emergency and disaster management training, it is crucial to engage in careful planning, foster collaboration, and consistently evaluate and update the training programs.
- PHEDM Tier III training will be expanded in a phased manner based on the willingness and relevance needs of the states.
- Need for a monitoring and evaluation framework to ensure that the training programs are effective in building the necessary capacity for managing public health emergencies and disasters in all States/UTs of India.

Key Recommendations

- NIDM-NCDC-CDC should continue and sustain their joint interventions and initiatives for:
 - strengthening the capacities of the workforce (staff),
 - robust and resilient infrastructures (stuff) such as PHEOC/ EOC/ PHERC to support the workforce and
 - Develop plans/ policies/ guidelines/ SoPs (system) besides implementing the same in different states.
- Develop a database/repository of expertise, unique technical skills, scientific knowledge and research, collaborative partnerships, and evidence-based public health action on the consequences of disasters.
- There is a need to adopt the evidence-based, people-centric, whole-of-government approach for emergency response and documentation of the best practices.
- Undertaking multidisciplinary research and exchanging best practices on Disaster Risk Reduction (DRR).
- Structured training on PHEDM is the need of the hour. Investing in capacity building could create a robust system that will save more lives.
- PHEDM-PDP training packages need to maximize Infographic representation to facilitate quick learning.
- Trained HR for PHEOC and dedicated training curriculum to enhance their capacity.
- Sensitizing, institutionalizing, and providing insights in promoting the exchange of information, knowledge, and innovation on understanding the Public Health Emergency and Disaster Preparedness and Response Capabilities.
- Learning from past experiences and strengthening the collaboration and coordination among the line departments against public health emergencies and disasters.
- Need to focus on providing care for caregivers by conducting regular training on stress management, mindfulness, and other coping strategies that can help caregivers manage the challenges of their work.

Way Forward

- NIDM and NCDC suggested expanding PHEDM Tier III training initially in the first few selected priority States/UTs in a phased manner and later rolling it out countrywide based on the availability of resources and critical needs.
- To form a core Technical Working Group (TWG) for the enhancement, flexibility, and scaling up of the PHEDM Tier III module.
- Necessity for strong inter-departmental coordination (during peacetime as well as response time) to effectively manage public health emergencies and disasters.
- Need to ensure the interoperability of Health Emergency Operation Centers (HEOCs) with Disaster Management Emergency Operation Centers (EOCs).
- Establishment of two Centers of Excellence (CoEs) both at the national level in apex institutes each at Disaster Management Institute and Medical and Public Health Institutions such as the National Institute of Disaster Management (NIDM), Delhi, under the Ministry of Home Affairs, and Vardhman Mahavir Medical College (VMMC), Delhi, under the Directorate General of Health Services, Ministry of Health and Family Welfare with support from various stakeholders, needs to be established to build, develop, and maintain a standardized and high-quality training curriculum and adult learning training package. Additionally, setting up the standards and benchmarks for the development of infrastructure (EOCs/HEOCs/PHEOCs/PHERCs/) supporting the emergency response along with advanced research, developing and innovating new tools and techniques augmenting the emergency response.
- PHEDM Tier III training needs to be scalable, considering the need to strengthen the capacity of human resources to manage newly established HEOCs.
- A certified PHEDM Programme needs to be developed similar to FETP programs.
- There is a need to have online training courses on various aspects like Foundational Course on PHEDM inter-alia Incident Response System-Management and Operational functions, RRT, PHEOC Development Package, Risk Communication, and Community Engagement (RCCE).
- The metropolitan surveillance programme initiated under the “PM-ABHIM” shall also be roped in PHEDM activities.
- Need for a monitoring and evaluation framework to ensure that the training programs are effective in building the necessary capacity for managing public health emergencies and disasters in all States/UTs of India.

Programme Agenda

DAY 01: 24 April 2023 (Monday)

0900-0930 hrs.	Registration	Ms Renu, Mr G G Teja, Mr Neeraj,Mr Sanjeev, Ms Praveen, Ms. Afreen (NIDM,NCDC,FHI 360, VHS)
0930-0935 hrs.	Welcome Address and Objectives of the Workshop	Dr Himanshu Chauhan, JD and In-charge IDSP, NCDC, Dte.GHS, MoHFW
0935-0940 hrs.	Lamp Lighting	Dignitaries and Participants
0940-0945 hrs.	Special address	Dr Runa Hatti Gokhale, Associate Director for Science and Program, CDC India
0945-0950 hrs.	Special address	Prof. Surya Parkash, Head CBRN, Industrial and Cyber DRR Division NIDM. MHA
0950-0955 hrs.	Special address	Dr Sujeet K Singh, Principal Advisor, NCDC
0950-0955 hrs.	Special address	Shri Rajendra Ratnoo, IAS, Executive Director, NIDM, MHA
0955-1005 hrs.	Special address	Dr Anil Kumar, Add DGHS, MoHFW, Gol
1005 -1010 hrs.	Keynote address	Sh. Ajit Seth, (IAS) Former Cabinet Secretary Gol
1010-1015 hrs.	Vote of Thanks	Dr Sanket Kulkarni, Joint Director, IDSP
1015-1016 hrs.	National Anthem	All Participants
1016 -1020 hrs.	Group Photograph	All Participants
1020-1030 hrs.	Tea Break	
Technical Session 1: Overview of Capacity Building Programs on Public Health Emergency and Disaster Management Co-Chairs: Prof. (Dr) Anil Kumar, Additional DGHS, MoHFW; Shri Rajendra Ratnoo, IAS, ED, NIDM, MHA; and Dr Runa Gokhale, CDC-India		
1030-1100 hrs.	Integrating Public Health Emergencies and Disaster Management- An Overview of the Five-Tiered Capacity Building Programme	Prof. Surya Parkash, NIDM

1100-1120 hrs.	Capacity Building Programme for Management of Public Health Emergencies	Dr Himanshu Chauhan, NCDC
1120-1140 hrs.	Capacity Building Programme- National Framework for Emergency Medical Teams	Dr Pradeep Khasnobis, DM Cell- MoHFW
1140-1200 hrs.	Capacity Building -Research Priorities and Way Forward	Dr Dharmesh Lal, ICMR
1200-1230 hrs.	Open Discussion	All participants
1230-1330 hrs.	Lunch Break	
Technical Session 2: PHEDM Tier-III Training Program- Overview and Experience Sharing Co-chairs: Prof. Surya Parkash, NIDM; Dr Senthilnathan, CIH Division, Dte.GHS and Prof. Sanjay Gupta, NIHFW		
1330-1340 hrs.	An overview of the PHEDM Tier-III training	Dr Rajeev Sharma, CDC India
1340-1415 hrs.	Lessons learned and experience sharing of PHEDM implementation	Dr K Kolandaswamy Former Director of Public Health and Preventive Medicine & Dr B Premkumar, Tamil Nādu, and Mr Bimlesh Joshi, USDMA, Uttarakhand State
1415-1445 hrs.	Open Discussion	All participants
1445-1500 hrs.	Tea Break	
Special Technical Session: Strengthening PHEDM Capability in Terms of Staff, Infrastructure (Stuff), and Systems Co-Chairs: Dr Anil Kumar- Additional Director General of Health Services (PH), Dte.GHS, MoHFW, Dr Dheeraj Shah, Director, NIHFW and Dr Sujeet Kumar Singh, Principal Advisor (PH), NCDC		

1500-1520 hrs.	Human Resource and Capacity Building for PHEDM (Staffing)	Prof. Surya Parkash, Head GMRD, EOC, NIDM
1520 -1540 hrs.	Infrastructure for PHEDM (Stuff)	Dr Sunil Gupta, Principal Consultant, NCDC
1540 -1600 hrs.	System strengthening for PHEDM (System)	Dr L. Swasticharan, Director, EMR, Dte. GHS, MoHFW
1600-1630 hrs.	Open discussion	All participants
1630-1640 hrs.	Remarks by Chair	
End of Day-1		
DAY 02: 25 April 2023 (Tuesday)		
0930-0945 hrs.	Recapitulation of Day-1	Participants from Sikkim, West Bengal, and Tamil Nadu
Group Discussion on Identification of Gaps and Challenges in PHEDM Co-Chairs: Prof. Surya Parkash, NIDM, Dr Himanshu Chauhan, NCDC, and Dr Rajeev Sharma, CDC-India Moderator: Dr B. Premkumar, Dr Saurabh Goel, Dr Rajat Garg, Dr Priyanka Singh, Dr Raju Thapa, Dr Harjeet Kaur and Mr Hari Hara		
0945-1000 hrs.	Introductory Remarks by Chair	
1000-1100 hrs.	Capacity Development Gaps and Challenges in PHEDM– Group Activity	Participants from the States
1100-1115 hrs.	Tea Break	
1115-1230 hrs.	Presentations from Groups	Representatives from States
1230-1250 hrs.	Open discussion	All participants
1250-1300 hrs.	Closing Remarks	Co-chairs
1300-1400 hrs.	Lunch Break	
Concluding Session: Formulation of Capacity Enhancement Plan		
Co-Chair: Prof. Surya Parkash, NIDM, MHA; Dr Himanshu Chauhan NCDC, Dr Meera Dhuria, NCDC		

1400-1500 hrs.	Finalization of Capacity Enhancement Plan- Formulating the roadmap for the implementation of PHEDM-PDP training in Priority States	NCDC, NIDM, CDC, State, and other stakeholders
1500-1530 hrs.	Concluding Remarks and Way Forward	NCDC, NIDM, and CDC-India
1530-1600 hrs.	Valedictory Session	NCDC, NIDM, and CDC-India
1600 onwards	End of Workshop followed by Tea	

Photo Glimpses





List of Participants

Directorate General of Health Services (Dte.GHS), MoHFW, GoI		
S.No.	Name	Designation
1.	Dr Anil Kumar	Addl DG
2.	Dr Pradeep Khasnobis	Addl. DDG & Director (DM), Dte. GHS, MoHFW
3.	Dr S. Senthilnathan	Deputy Director, Central IH Division, Dte.GHS, MoHFW
4.	Dr Sujata Arya	ADG, Central IH Division, Dte.GHS, MoHFW
National Centre for Disease Control (NCDC)		
5.	Dr Sujeet K Singh	Principal Advisor, NCDC
6.	Dr Himanshu Chauhan	Joint Director & Incharge, IDSP, NCDC, Delhi
7.	Dr Meera Dhuria	Joint Director, Dept. of Epidemiology, NCDC
8.	Dr Avinash Sunthilia	SMO, IDSP
9.	Mr Ajay Kumar	Consultant, IT
10.	Dr Astha Singh	Research Officer, DZDP NCDC
11.	Dr Saurabh Goel	Joint Director, IDSP, NCDC, Delhi
12.	Dr Sanket Kulkarni	Joint Director, IDSP, NCDC, Delhi
13.	Dr Pranay Verma	Joint Director, IDSP, NCDC, Delhi
14.	Ms Pallavi Luthra	Consultant-IT, IDSP, NCDC, Delhi
15.	Dr Dhara Shah	Assistant Director, IDSP
16.	Ms. Ritu Malik	Consultanat GIS, IDSP
17.	Mr Anil Patil	NCDC
National Insitute of Disaster Management (NIDM)		
18.	Shri Rajendra Ratnool (IAS)	ED, NIDM
19.	Prof. Surya Parkash	Head GMRD
20.	Mr G. G. Teja	JC, NIDM
21.	Mr Hari Hara Kumar Devada	YP, NIDM
22.	Mr Ajit Batham	YP, NIDM
23.	Ms Afreen	YP, NIDM
24.	Md Parveen Sultana	YP, NIDM
25.	Mr Subham Badola	YP, NIDM
26.	Mr Vimal	YP, NIDM

NDRF		
27.	Ins Praveen	NDRF
28.	Dr Amit Murari	CMO, NDRF, HQ Delhi
29.	Dr Rohit Kumar	MO, 16th Bn NDRF
NIHFW		
30.	Dr Dheeraj Shah, Director	Director, NIHFW
31.	Dr Sanjay Gupta	Professor and Acting HOD Epidemiology, NIHFW, Delhi
32.	Prof. Manish Chaturvedi	Professor, Planning and Evaluation, NIHFW, Delhi
Officials from State IDSP		
33.	Dr Srividya	State Epidemiologist IDSP, UT Puducherry
34.	Dr Yogesh Malvi	State Microbiologist (IDSP), Mizoram
35.	Dr Praveen Aswal	State Nodal officer (IDSP), DMHS Jaipur, Rajasthan
36.	Dr Alka Sharma	Joint Director (Famine), DMHS, Jaipur, Rajasthan
37.	Dr Deepa Meena	State Epidemiologist (IDSP), DMHS Jaipur, Rajasthan
38.	Dr Ramesh K Kaulgud	SSO/Project Director -IDSP, Karnataka
39.	Dr Padma M. R	Deputy Director-SSU, Karnataka
40.	Dr Ugen Sherpa	Director cum DSO South Sikkim
41.	Dr B.K Chawan	Epidemiologist, South Sikkim
42.	Dr J M Katira	SSO Gujarat
43.	Dr D Majhi	SSO IDSP
44.	Dr Nita Ray	State Veterary, West Bengal
45.	Dr Nyanthung Kikon	SNO Nagaland
46.	Dr Praveen Karn	SE, Jharkhand
47.	Dr K Kolanda Swami	DPH & PM Retired, Tamilnadu
48.	Dr Dhananjay Srivastva	Subject matter expert, Lucknow
Officials from State Disaster Management Authorities		
49.	Dr K. Kolandaswamy	Former Director of Public Health and Preventive Medicine, Tamil Nadu
50.	Dr Bimlesh Joshi	USDMA, Uttarakhand

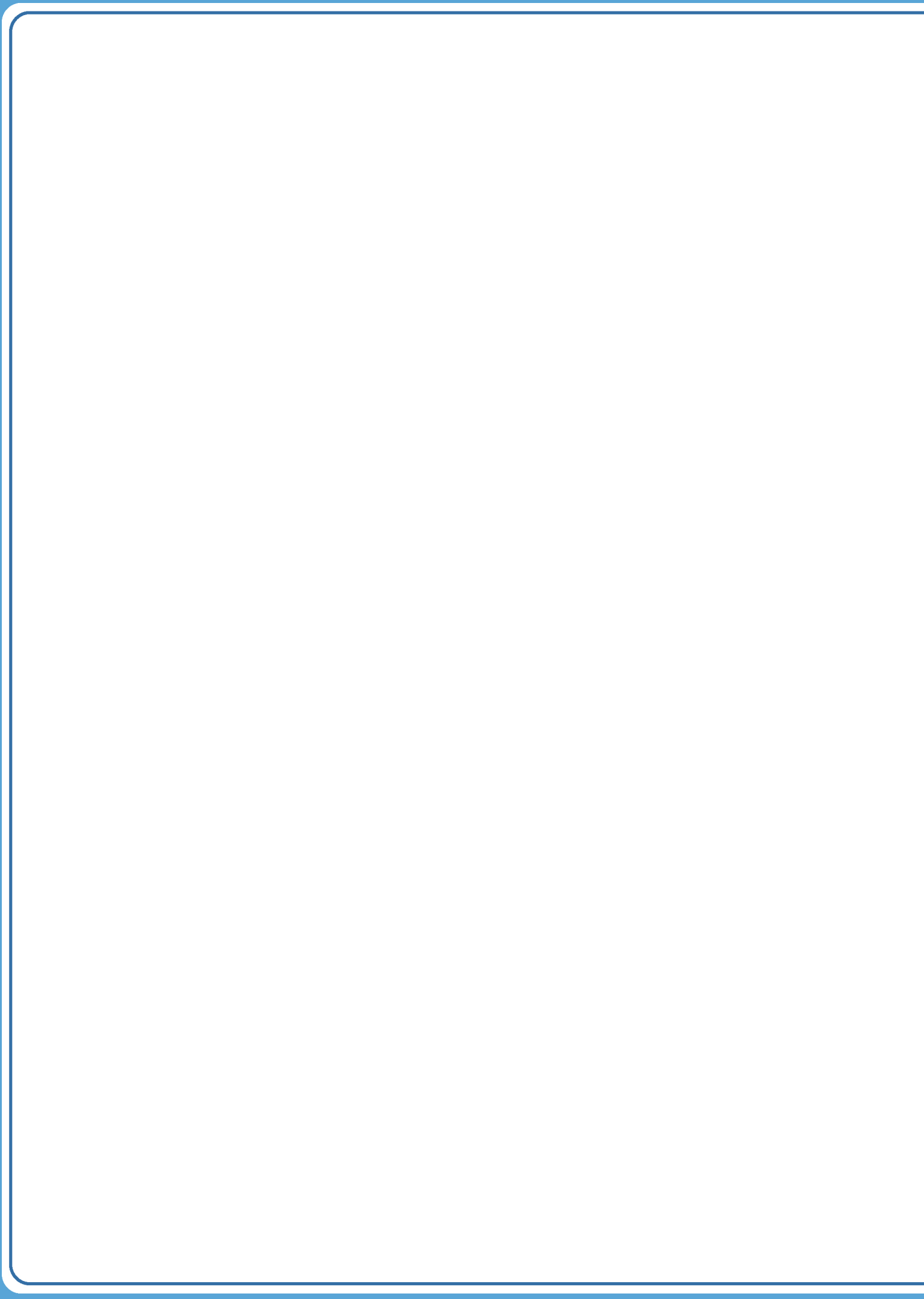
51.	Er Sarib Sahran (KAS)	SDM Kokerang Govt of J&K
52.	Dr Anshu Tiwari	FDM, HIPA, Haryana
53.	Sh. Rakesh H Jainapur	DM Professional, Karnataka
54.	Ms Mukta Girdar	Sr Consultant, DDMA, Delhi
55.	Bahubali Kondali	DM Professional, Karnataka
56.	Dr Pratheesh Maman	UNICEF-KSDMA, Kerala
57.	Sri Sabyasachi Hota (OAS)	Chief General Manager, OSDMA, Odisha
58.	Mr Brijender Singh	OSD, Disaster Management, Relief & Civil Defence Department , Rajasthan
59.	Col. Dalbir Singh	GM (Training, Project & Consultancy), MGSIPA, Punjab
60.	Dr Rita Malik	Associate Professor, Delhi Skill and Entrepreneurship University, Okhala Campus, New Delhi
61.	Mr Mukta Ram Deka	Project Manager (DRR), ASDMA, Assam
62.	Mr Kishore Dutta	Project Officer (Training & Capacity Building) , ASDMA, Assam
63.	Mr Suresh Deshmukh	Assistant Shift In-Charge, Disaster Management Department, BMC, Maharashtra
64.	Shri Sachin Agarwal	Assistant Engineer (Electrical), ESIC, Delhi
65.	Shri Baye Lal	Assistant Engineer (Civil), ESIC Delhi
66.	Shri Prem Mohan Srivastava	Assistant Engineer (Civil), ESIC, Delhi
67.	Shri Vivek Kumar, Shri	Assistant Engineer (Civil), ESIC, Delhi
68.	Saurabh Kumar	Deputy Director, MPSDMA, Madhya Pradesh
69.	Bateswar Das	Research Associate cum Programme Coordinator, GIDM Gujarat
70.	Mr Kunzang Bhutia,	HR professional, SSDMA, Sikkim

71.	Mr Karma Hissey Bhutia	HR professional Line Department, SSDMA, Sikkim
72.	DR Srinivasa Rajamani Neeli	Programme Director, GVMC Andhra Pradesh
ICMR/Medical Institutions/ESIC		
73.	Dr Dharmesh Lal	Scientist E, ICMR
74.	Dr Suman Das	DSEU
75.	Dr Roshan Srivastava	IIT Tirupati
WHO SEARO and WHO India/ The World Bank		
76.	Dr Suresh	The World Bank
77.	Dr Raman	The World Bank
78.	Mr Anagha Khat	The World Bank
79.	Dr Dinesh Nair	The World Bank
80.	Mr Rajnish	The World Bank
81.	Dr Mirriasash	WHO-TSU, NCDC
82.	Mr Amit Alok	WHO-Consultant, MoHFW
CDC-India		
83.	Mr William Abrams	Deputy Director
84.	Dr Runa Hatti Gokhale	Associate Director for Science and Program
85.	Dr Rajeev Sharma	PHS and Lead-EM
86.	Dr Rajat Garg	EM Coordinator
FHI360		
87.	Dr Bitra George	FHI 360
88.	Mr Sharad Malhotra	FHI 360
89.	Dr Priyanka Singh	FHI 360
90.	Dr B Prem Kumar	FHI 360
91.	Mr Manoj	FHI 360
92.	Mr Neeraj Sinha	FHI 360
93.	Mr Virendra	FHI 360
94.	Mr Akash	FHI 360
VHS-CDC Project NIRANTAR		
95.	Dr A C Dhariwal	Technial Director-EM
96.	Mr Ajay Dogra	STO
97.	Mr Anil Kathait	STO
98.	Dr Raju Thapa	STO
99.	Ms Nishtha Bhawalpuria	TO

100.	Dr Harjeet Kaur	TO
101.	Mr Sanjeev Karn	TO-IT
102.	Mr Dalveer Singh	MTS
103.	Ms Renu	AA



During the workshop, the dignitaries were felicitated with an E-Tree Certificate, an opportunity to offset carbon footprint and forge a healthy and safe future. Furthermore, the kits (bags) given to the participants were crafted by the Women's Community-Based Organisation (WCBO), a women's community initiative for and by women living with HIV/AIDS, providing care and support services with a special focus on women and children infected and affected by HIV/AIDS.



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