



NATIONAL PUBLIC HEALTH EMERGENCY MANAGEMENT (NPHEM) ROADMAP PAKISTAN 2024-28



National Institute of Health
Ministry of National Health Services, Regulations and Coordination

National Public Health Emergency Management (NPHEM) Roadmap

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MESSAGE BY THE CEO, NIH

The National Institute of Health, Ministry of National Health Services, Regulations and Coordination is committed to develop resilient public health systems in the country and to improve the health of our people. Public health emergencies arising from public health threats continue to be a major concern across the world. There is a dire need to establish functional public health Emergency Operations Centers (EOCs) at all levels to fulfill the International Health Regulations-2005 (IHR) obligations.

PHEOCs play critical roles to prepare for and respond to public health emergencies. A Public Health EOC serves as a hub for coordinating the preparation for, response to, and recovery from public health emergencies. The preparation includes planning, such as risk and resource mapping, development of plans and procedures, training and exercising. The response includes all activities related to investigation, response and recovery. The PHEOC also serves as a hub for coordinating resources and information to support response actions during a public health emergency and enhances communication and collaboration among relevant stakeholders.

This document has been developed through collaborative expert consultations, evidence findings, technical meetings and several reviews from national and provincial stakeholders.

The public health emergency management 5-year roadmap will provide the guidance about the priority areas and innovations which need to execute on urgent basis. This document describes the interventions related to strengthening of PHEOCs including the development of PHEOCs networking, Risk based operational plans, legal powers, governance structures, standard operating procedures, workforce development and multi-sector coordination.

Finally, I would like to acknowledge and thank national, provincial health and other department experts and country teams of development partners for their continued technical and financial assistance in terms of formulation of this document.



Dr. Muhammad Salman

Chief Executive Officer

National Institute of Health

Islamabad

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ACRONYMS AND ABBREVIATIONS

CDC	Centres for Disease Control and Prevention
CONOPS	Concept of operations
DDSRUS	District Disease Surveillance and Response Units
EMTs	Emergency Medical Teams
ERP	Emergency response plan
HR	Human Resource
ICT	Information communication technology
IHR	International Health Regulations
IMS	Incident management system
JEE	Joint External Evaluation
JSI	John Snow, Inc
MoNHSRC	Ministry of National Health Services, Regulations and Coordination
NAPHS	National Action Plan for Health Security
NCOC	National Command and Operations Centre
NDMA	National Disaster Management Authority
NIH	National Institute of Health
NPHEM	National Public Health Emergency Management
PDSRUS	Provincial Disease Surveillance and Response Units
PHEM	Public Health Emergency Management
PHEOC	Public Health Emergency Operations Centre
POEs	Points of Entries
RRTs	Rapid Response Teams
SOPs	Standard Operating Procedures
TORs	Terms of References
TWG	Technical Working Group
UKHSA	United Kingdom Health Security Agency
USAID	United States Agency for International Development
WHO	World Health Organization

EXECUTIVE SUMMARY

The Global Health Security has gained serious attention during last two decades, globalization travel and trade has significantly increased which may pose a serious threat for cross border transmission of multiple health hazards. The environmental hazards due to climate change, frequent travel, trade and increased human-animal interaction are significantly contributing to escalate the emergence and re-emergence of all types of hazards and risk ultimately paving the way to compromise the global health security. As far as biological hazards/treats are concerned during last two decade, Influenza, MERS-COV, COVID-19, Mpox and other pandemics have challenged our health system and evidently proved that lots of efforts need to be done to effectively respond to public health emergencies.

The National Institute of Health (NIH), Ministry of National Health Services, Regulations and Coordination, Islamabad, Pakistan being the leading National Public Health Institute of the country in collaboration with development partners is determined to strengthen the public health emergency management system of Pakistan in the context of Global Health Security (GHS) and International Health Regulations (IHR) 2005. As per the recommendations of 2nd round of Joint external evaluation 2023, there is a need to establish a formal and sustainable structure of Public Health Emergency Management System across the country dealing with all types of emergencies. Therefore, NIH has developed a 5- year NPHEM roadmap with clearly defined objectives/targets from 2024 to 2028. National, provincial health departments, other relevant multi-sectors, multidisciplinary experts and all relevant stakeholders have contributed a lot to finalize this document through multiple reviews and meetings.

The major objectives with targeted interventions under each objective were articulated including to strengthen/establish the governance structure of public health emergency management, to develop frameworks including strategic and operational plans for PHEOCs, to expand and strengthen the Emergency Coordination/Operations Centers at all levels, to strengthen/establish Public Health Rapid Response Teams (RRTs) program at all levels, To strengthen PHEOCs operations including reporting/analytic mechanisms through establishing the physical and Information and Communication Technology (ICT) infrastructure, to establish a functional system for activating, sending, receiving and coordinating emergency medical/management teams or health personnel for timely response to all hazard emergencies, to develop sustainable HR capacity for PHEM at federal, provincial and district level, to strengthen the PHEM capacities at Points of entries (POEs) and to build multi-sector coordination/collaborative approaches for PHEM at all levels.

This Roadmap document will guide about the need for a skilled public health workforce, system development, risk based plans, readiness and response, robust emergency structures, mobilization of resources, avoiding overlapping, improved multi-sector coordination, better monitoring and evaluation, direction setting for all relevant stakeholders in line with the regional and global initiatives and will help the country to establish resilient public health emergency management system in next 5 years.

1. BACKGROUND

Since 2018, Pakistan has made significant strides in strengthening its public health emergency preparedness and response systems. The major achievements include, establishing and operationalizing Public Health Emergency Operations Center (PHEOCs/NCOC) at national level and implementing an Incident Management System (IMS) during public health emergencies of different scales, i.e., Dengue in 2019, COVID-19 and cascading public health events in floods 2022. The foundation for these achievements was laid through high-level advocacy, engaging heads of state, ministries, and agencies in recognizing the vital role of functional PHEOCs from the Prime Minister office. National Coordination committee and policy groups were formed to oversee implementation, develop a PHEOC implementation plan, and map existing legal mandates during public health emergencies.

NIH under Ministry of NHR&C along with provincial health departments designated facilities with core functionalities were established, equipped with basic infrastructure and staff to enable emergency operations coordination. The national IMS/response coordination structure was developed and enacted, providing a framework for multi-sector collaboration (draft and SOPs are developed). Core PHEOC staff at national level was assigned for permanent roles in preparedness, response, and recovery phases, further enhancing operational capacity. Data and information requirements for informed decision-making were identified, ensuring vital access to IDSR system, laboratory data, rapid risk assessments, and critical resource information. Funding mechanisms are mainly on ad-hoc basis but need extra resources to equip and operate PHEOCs at the national and subnational level, with provisions for accessing additional resources during emergencies. NIH has developed and implemented basic level training program for PHEOC staff on IMS and PHEOC operations, ensuring skilled personnel for effective response at national and subnational level since 2018 to date.

Pakistan's IMS integrates with the national PHEOC, facilitating seamless multi-sector coordination during emergencies. The administrative framework has been adapted to support this collaboration at both national and subnational levels. Roles and responsibilities of stakeholders, partners have been identified during emergencies but need to update further for preparedness phase as well with a roster of emergency operations staff stands ready. Training plans for IMS and emergency response coordination are in place, equipping communities and all relevant stakeholders to contribute effectively.

1.1 RATIONALE

The 5- year NPHEM Roadmap sets clearly defined objectives/targets from 2024 to 2028, emphasizing a systematic and progressive approach to achieving its goals. The Roadmap will guide about the need for a skilled public health workforce, system development, avoiding overlapping, improved multi-sector coordination, better monitoring and evaluation, direction setting in line with the regional and global initiatives and will help the country to create resilient public health emergency management system and will foster public trust through better prevention and control of public health threats.

1.2 OBJECTIVES

Following are the key objectives to be adopted and strengthened at different levels:

1. To strengthen/establish the governance structure of public health emergency management across the country
2. To develop frameworks including strategic and operational plans for PHEOCs
3. To expand and strengthen the Emergency Coordination/Operations Centers at all levels
4. To strengthen/establish Public Health Rapid Response Teams (RRTs) program at all levels
5. To strengthen PHEOCs operations including reporting/analytic mechanisms through establishing the physical and Information and Communication Technology (ICT) infrastructure across the country
6. To establish a functional system for activating, sending, receiving and coordinating emergency medical/management teams or health personnel for timely response to all hazard emergencies
7. To develop sustainable HR capacity for PHEM at federal, provincial and district level
8. To strengthen the PHEM capacities at Points of entries (POEs)
9. To build multi-sector coordination/collaborative approaches for PHEM at all levels

2. MAJOR AREAS AND YEAR WISE PRIORITY INTERVENTIONS

2.1 PHEOCs GOVERNANCE STRUCTURE

Roadmap Objective 1: To improve the governance of public health emergency management across the Country

In the face of evolving health threats, Pakistan urgently needs to update and publicly notify a national legal framework for Public Health Emergency Operations Centers (PHEOCs). This framework, outlining the strategic and operational procedures of PHEOCs during all declared emergencies, is crucial for streamlining response, ensuring efficient resource allocation, and ultimately safeguarding public health. A clear legal mandate empowers PHEOCs to act decisively, fosters inter-agency collaboration, and builds public trust in their vital role during crises. By prioritizing this update, Pakistan can strengthen its health emergency management system and effectively protect its citizens from future public health threats.

Pakistan's public health emergency management system currently lacks a well-defined governance structure, hindering its effectiveness. This project aims to address this critical gap by improving governance across the country. By aligning with International Health Regulations (IHR-2005) and bolstering national preparedness, the project will establish a robust framework for managing future public health emergencies. This will involve strengthening leadership, coordination, and collaboration among various stakeholders, ultimately ensuring a more efficient and impactful response system to safeguard public health.

Objective 1: To improve the governance of public health emergency management across the country				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
1.1	To establish/revitalize a national TWG with revised TORs, provincial and multi-sector representation including Finance, Planning and other relevant ministries	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
1.2	To establish/revitalize the Technical Working Groups (TWG) with TORs at provincial levels	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

Objective 1: To improve the governance of public health emergence management across the country				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
1.3	Develop linkages to enhance collaboration at National and provincial level multi-sectors and exercises for sensitization on PHEM capacity development	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
1.4	To conduct the biannual National and Provincial PHEM Review Meeting to identify areas of good practice and challenges for implementation at national level.	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
1.5	To regularly conduct provincial PHEM quarterly review meetings to identify areas of good practice and challenges for implementation of provincial level	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
1.6	To increase government and partner support in the implementation of PHEM through allocation of flexible funds or a budget line to guarantee sustainability. To identify the flexible methods of use of funds during the emergency	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
1.7	To develop/update a comprehensive work plan in line with PHEM roadmap aligned with National Action Plan for Health Security (NAPHS) and to carry out joint planning, implementation, monitoring and evaluation of PHEM at national and provincial levels	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
1.8	To advocate/develop a legal framework to promote and support PHEM across the country	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
1.9	Assessment of existing laws and regulations to support PHEM	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

Objective 1: To improve the governance of public health emergence management across the country				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
1.10	To develop a national and provincial comprehensive PHEM financing strategy to mobilize sufficient and sustained budget (internal and external)	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
1.11	Expansion of PHEOs networking across the country; notification of the PHEOCs at provincial levels and strengthen the linkages of PHEOCs with other relevant departments	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

2.2 PHEOCs Strategic and Operational Plans

Roadmap Objective 2: To develop frameworks including strategic and operational plans of PHEOCs

After COVID-19 experience the dynamic landscape of public health emergencies, require rapid and clear communication and coordination for effective response. This initiative prioritizes a vital purpose of emergency response coordination to instantly notify and comprehensively update national and provincial emergency response committees with clearly defined Terms of Reference (TORs). This seemingly simple action holds immense significance for Pakistan's Public Health Emergency Management (PHEM) System. The committees, equipped with immediate awareness and precise TORs, can activate pre-determined response plans without delay, minimizing critical response time. These activities will outline roles and responsibilities within each committee, as stipulated in the TORs, prevent confusion and overlap, fostering a coordinated and unified response effort.

The power lies in well-defined frameworks within strategic and operational plans. These frameworks serve as blueprints, outlining roles, responsibilities, and communication protocols for each committee member, as dictated by the TORs. In essence, this initiative, by streamlining communication and empowering emergency response committees through strategic and operational frameworks, aims to create a swift, coordinated response system, safeguarding public health in the face of future threats.

Objective 2: To develop frameworks including strategic and operational aspects of PHEOCs for public health emergencies				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
2.1	To conduct country-specific emergency multi-hazard risk assessment/profiling and readiness assessments	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
2.2	Development of PHEOC Handbook to provide step by step guidance for the management and operations of the PHEOC to prepare for and respond to public health emergencies (PHEs) in order to ensure optimal and effective use of the facility.	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
2.3	Develop all-hazard national public health emergency strategic and operational plans	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
2.4	Develop all-hazard national public health emergency standard operating procedures (SOPs)	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
2.5	Established mechanisms (network and resources) for operational research and development (R&D) for emergency preparedness and response	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

2.3 PHEOCs Coordination Mechanisms

Roadmap Objective 3: To expand and strengthen the Emergency Coordination/Operation Centers at all levels

While Pakistan has established a national Public Health Emergency Operations Center (PHEOC) with a focus on emergency planning, operations, and coordinating information and resources at the provincial level, existing infrastructure suffers from critical shortcomings in human resources and logistics. This

initiative recognizes this critical gap and aims to significantly enhance Pakistan's public health emergency preparedness and response by not only strengthening the national PHEOC but also prioritizing the expansion of the PHEOCs network across the country.

A robust network of PHEOCs, strategically located throughout Pakistan, is vital for a swift and effective response to public health emergencies. Imagine a network of well-equipped PHEOCs at the subnational level, acting as the first line of defense in their respective regions. These subnational PHEOCs can rapidly assess local threats, coordinate resources, and implement crucial interventions during an emergency, minimizing the impact before it spreads. This highlights the immense importance of expanding the PHEOC network – it brings life-saving capabilities closer to the populations most at risk.

To achieve this goal, the initiative will focus on several key areas. First, standardized protocols and operational procedures will be implemented across all PHEOCs, ensuring seamless information exchange, coordinated resource allocation, and unified decision-making during emergencies. Second, PHEOCs will be equipped with cutting-edge technology solutions, including real-time data dashboards, secure communication platforms, and advanced logistical tracking systems. This will bolster the expertise and readiness of PHEOC staff at all levels, ensuring a more effective response across the entire network.

Objective 3: To expand and strengthen the Emergency Coordination/Operation Centres at all levels				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
3.1	Notifications of PDSRUS and DDSURs as Provincial and District EOCs, Designated space for the Public Health EOCs	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
3.2	Development of the Human Resource response Plan with core staff responsible and multi-sector, multi-disciplinary surge staff for the smooth functionality of PHEOCs	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
3.3	Establishment of the roster of experts for PHEOCs at National and Provincial levels	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
3.4	IMS establishment and utilization for emergency coordination, EOCs TORs, Organograms development, Positions with TORs development	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

Objective 3: To expand and strengthen the Emergency Coordination/Operation Centres at all levels				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
3.5	Build capacity to establish modular, scalable all-hazard management structures at all levels	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
3.6	Established designated Call Centre for Event Based Surveillance and develop PHEOC watch desk protocols to work with Call Centre	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
3.7	National/Provincial/Districts public health EOCs (or equivalent structure) evaluation mechanisms	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

2.4 Rapid Response Teams Program

Roadmap Objective 4: To strengthen and implementation of Public Health Rapid Response Teams (RRTs) program at all level

Pakistan's current public health emergency response system faces a critical hurdle – a lack of well-established Rapid Response Teams (RRTs). These specialized teams, comprised of medical professionals, epidemiologists, and other public health experts, are the backbone of early detection and rapid intervention during outbreaks or public health emergencies. Unfortunately, Pakistan's existing RRT system suffers from low capacity, hindering its ability to effectively respond to emerging threats.

Imagine a disease outbreak in a remote region. Without a well-functioning and structured RRT system, precious time is lost in identifying the outbreak, deploying qualified personnel, and implementing critical control measures. This delay can allow the disease to spread unchecked, potentially leading to a larger outbreak/public health emergency and greater loss of life. Strengthening Pakistan's RRT program is therefore paramount. By establishing well-trained and equipped RRTs at all levels, from district to national, Pakistan have to create a robust first line of defense against public health emergencies. These teams can be rapidly deployed to public health emergencies and to investigate outbreaks, implement control measures, and gather vital data to inform

broader public health responses. A well-functioning RRT system translates to faster detection, swifter intervention, and ultimately, a minimized impact on public health.

Objective 4: To strengthen and implementation of Public Health Rapid Response Teams (RRTs) program at all level				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
4.1	Inclusion of National RRT Program in country's all-hazard national public health emergency strategic and operational plans	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
4.2	Established contracts/agreements with other national ministries/agencies for multisectoral RRT mobilization	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
4.3	Draft National and sub-national RRT SOPs and endorsement through all relevant stakeholders and leadership	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
4.4	Multi-sector human resource mapping to manage/support the RRT program & data management system	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
4.5	Develop RRT budget plan for requisite preparedness and response operations (i.e., salary, per diem, training programs, travel, equipment, vaccinations, database maintenance, etc.)	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
4.6	Identify resources and mechanisms to ensure RRT safety, health, and wellbeing including in RRT planning (e.g., medical/disability/life insurance, medical care, mental health care, emergency evacuation etc.)	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
4.7	Develop pre-deployment, deployment and post deployment SOPs	NIH, Ministry of NHSRC and	Relevant Development					

Objective 4: To strengthen and implementation of Public Health Rapid Response Teams (RRTs) program at all level				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
		Provincial Health Departments	Partners and Stakeholders					
4.8	Development of all-hazard training curriculum for the RRT members	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
4.9	Development of subject specialized training curriculum for the RRT members	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
4.10	Conduction of all hazard and subject specialized trainings annually/bi-annually as per availability of funds	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
4.11	Develop monitoring and evaluation framework for improvement planning of the RRT program (e.g., Surveys, focus groups, interviews, observation, after action review, post-deployment debrief etc.)	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

2.5 PHEOCs Physical and ICT infrastructures

Roadmap Objective 5: To strengthen PHEOCs operations including reporting/analytic mechanisms through establishing the physical and Information and Communication Technology (ICT) infrastructure across the country

Pakistan's current public health emergency management system struggles with a critical gap – a lack of robust information and communication technology (ICT) infrastructure. This translates to slow and unreliable data collection, hindering real-time decision making during emergencies. Imagine a public health

crisis unfolding – essential data on case numbers, resource availability, and geographic spread trickles in through fragmented channels, delaying a coordinated response. This is the unfortunate reality Pakistan faces without a strong ICT infrastructure.

Strengthening the ICT infrastructure across the country is an essential objective for a more effective public health emergency response system. A robust digital network would allow for real-time data collection and analysis. Health facilities could seamlessly report cases and resource needs, while authorities could monitor the situation nationwide with a clear and up-to-date picture. This improved data flow would empower officials to make informed decisions quickly, allocate resources efficiently, and ultimately, save lives. Investing in ICT infrastructure for Pakistan's public health emergency management system is not just about technology; it's about building a more robust and responsive system to safeguard public health during critical times.

Objective 5: To strengthen PHEOCs operations including reporting/analytic mechanisms through establishing the physical and Information and Communication Technology (ICT) infrastructure across the country				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
5.1	To ensure the minimum physical infrastructure development for PHEOCs at national and provincial levels	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
5.2	PHEM TWGs will ensure the strengthening of IT capacity requirements for PHEM at all levels	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
5.3	To assess IT capabilities and infrastructure needs of the PHEM including network coverage, hardware, software, equipment, and IT systems maintenance and sustainability	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
5.4	Develop a plan based on gaps identified through Assessment of IT infrastructure at national and provincial levels and implementation to address the gaps	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
5.5	To establish an IT based data management system for RRTs and training on the systems	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

Objective 5: To strengthen PHEOCs operations including reporting/analytic mechanisms through establishing the physical and Information and Communication Technology (ICT) infrastructure across the country				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
5.6	Establish reporting protocols across all governmental agencies in-country and internationally	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
5.7	Established system for identifying and procuring necessary equipment	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

2.6 Emergency Medical Teams

Roadmap Objective 6: To develop a functional system for activating, sending, receiving and coordinating emergency medical/management teams or health personnel during health emergencies for timely emergency response to all hazard emergencies

Presently, Pakistan is lacking in the functions of Emergency Medical Teams (EMT) and to support national and international deployment. There is need to establish a well-planned mechanism for activating, deploying, and coordinating emergency medical/management teams (EMTs) or health personnel during crises at subnational, national and international levels. It will be based on response where skilled professionals seamlessly integrate into Pakistan's healthcare system, safeguarding lives when disaster strikes.

The EMTs will be integrated into the existing healthcare system, supporting and amplifying local resources with specialized skills and equipment. The activities under this objective can streamline system for activating national and subnational EMTs, with participation from government officials, partners, civilian, military, or NGO-affiliated, ensures fast arrival of medical expertise wherever it's needed most.

A functional activation and coordination system will be established for saving lives. It's about ensuring medical professionals reach those in need with the utmost speed and efficiency, mitigating the devastating effects of emergencies and fostering resilience in communities in Pakistan as well as international level upon request.

Objective 6: To develop a functional system for activating, sending, receiving and coordinating emergency medical/management teams or health personnel during health emergencies for timely emergency response to all hazard emergencies				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
6.1	Development of plans for emergency management teams (EMTs) (EMTs consist of health professionals providing direct clinical care to populations affected by outbreaks, disasters and emergencies as a surge capacity to support the local health system.)	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
6.2	Designated EMT focal points at National, Provincial and District level	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
6.3	National and intermediate level plans that outline a system for pre-deployment, deployment and post-deployment of surge personnel, including sending and receiving personnel and teams during public health emergencies for EMTs	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
6.4	Capacity Building for EMTs	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
6.5	Develop a quality assurance or accreditation system for EMTs	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
6.6	Development of roster and Data management system for EMTs	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

Objective 6: To develop a functional system for activating, sending, receiving and coordinating emergency medical/management teams or health personnel during health emergencies for timely emergency response to all hazard emergencies				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
6.7	System to provide necessary supplies for EMTs and integration with the data system	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

2.7 PHEM Workforce Development

Roadmap Objective 7: To develop sustainable HR capacity for PHEM at federal, provincial levels, districts and health care facility level through capacity building and training

Pakistan has made commendable strides in building human resource (HR) capacity for PHEM through programs on Incident Command System (ICS) and Interagency Management System (IMS). These programs have equipped personnel at various levels with a standardized approach to emergency response. Imagine a team adept at ICS – they can effectively coordinate diverse responders, ensuring a unified and efficient operation during a crisis. Similarly, IMS training fosters collaboration across different agencies, leading to a more comprehensive response that leverages the strengths of each organization involved.

However, despite these initial successes, there's a need to further strengthen HR capacity for PHEM in Pakistan. The current programs may not have reached all essential personnel, and ongoing refresher training is crucial to maintain proficiency in these critical skills. Furthermore, the existing system might lack a focus on specific public health emergency preparedness and response competencies. This objective addresses these gaps by aiming to develop a sustainable HR strategy that ensures a wider reach, continuous learning, and targeted training focused on the unique demands of PHEM.

Objective 7: To develop sustainable HR capacity for IDSR at federal, provincial levels, districts and health care facility level through capacity building and training				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
7.1	Development of all hazard training curriculum for RRTs and EMTs	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
7.2	Establish PHEM training program aligned to standardized emergency competencies	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
7.3	Establish training provision for existing RRT members on supplementary technical skills related to field deployments, soft skills, and response updates	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
7.4	disease-specific trainings identified and conducted for priority diseases	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
7.5	Simulation exercises and AARs	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
7.6	Roster Management	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

2.8 PHEM at POEs

Roadmap Objective 8: To strengthen the PHEM capacities at Points of Entries (POEs)

Pakistan's current system for coordinating Public Health Emergency Operations Centers (PHEOCs) with Points of Entry (POEs) relies heavily on ad-hoc arrangements. This means that communication and collaboration often occur on a case-by-case basis, lacking standardized protocols and clear lines of responsibility. While this approach might function for isolated events, it proves to be a critical weakness when faced with large-scale public health emergencies.

Imagine a scenario where a contagious disease emerges and travelers carrying the virus begin arriving at various POEs across the country. Without a strong, integrated system, there's a risk of delayed detection, missed cases, and hampered containment efforts. Strengthening PHEOC capacities at POEs and integrating them seamlessly with the national and provincial PHEOC network is paramount for a swift and effective response to public health threats at the borders. This objective aims to bridge this critical gap, creating a coordinated system where POEs can effectively screen travelers, raise timely alerts, and efficiently collaborate with PHEOCs to implement necessary public health measures. This will not only safeguard public health within Pakistan but also prevent the spread of diseases across international borders.

Objective 8: To strengthen the PHEM capacities at Points of entries (POEs)				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
8.1	Established a cross-border and within the country collaborative agreement, legal frameworks, memoranda of understanding, or other to facilitate bilateral, multilateral, or other regional RRT deployments and PHEM	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
8.2	Assessments of all points of entry for readiness, preparedness and response during any public health emergency	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
8.3	Development of contingency plan at all points of entry	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

Objective 8: To strengthen the PHEM capacities at Points of entries (POEs)				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
8.4	Develop standard operating procedures and national response plan at points of entry (POE)	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
8.5	Established protocols for bilateral or multilateral data and information sharing during a cross-border response	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
8.6	Development and implementation of all hazard PHEM core capacities training program	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
8.7	Development and updating the roaster for surge capacity and deployment	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

2.9 Multi-Sector Coordination/Collaboration

Roadmap Objective 9: To build multi-sector coordination/collaborative approaches for PHEM at all levels

Pakistan's diverse and devolved health system has many complexities and challenges in developing unity or command and unified command response system during public health and natural disaster emergencies. To develop center stage of IMS during emergencies there is a need of robust multisectoral stakeholders' coordination mechanism with national and subnational Public Health Emergency Operations Centers (PHEOCs). The following interventions will be crucial step signifies a shift from isolated responses to a collaborative force that can effectively tackle any hazard emergency. By implementing the certain tasks NIH under MoNHSR&C can develop network of interconnected government agencies, healthcare providers, community leaders, and private sector players, all seamlessly linked to the national and subnational PHEOCs.

Objective 9: To build multi-s coordination/collaborative approaches for PHEM at all levels				Timeline				
SN	Key Interventions	Lead Organization	Supporting Organizations	2024	2025	2026	2027	2028
9.1	Mapping and assessment of existing stakeholders and critical multisectoral public health system for emergency coordination and response.	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
9.2	Develop stakeholder roles and responsibilities, and coordination mechanism during emergencies	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
9.3	Development of MOUs/ formal agreements at the national and sub-national level	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					
9.4	Established mechanisms to respond to One Health threats across human, animal, agriculture/food and environmental health sectors	NIH, Ministry of NHSRC and Provincial Health Departments	Relevant Development Partners and Stakeholders					

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