**Health emergency and disaster risk management framework**

***Strategies for reducing health risks and consequences of emergencies and building community and country resilience and health security***

**POLICY GUIDANCE**

1. Introduction

People across the world are faced with a diverse range of risks associated with infectious disease outbreaks, natural hazards, conflicts, unsafe food and water, chemical and radiation incidents, building collapses, transport incidents, lack of power and water supply, air pollution, antimicrobial resistance, the effects of climate change and other sources of risk (refer to Annex 1: WHO Classification of Hazards). Small-scale events with limited health consequences occur on a regular basis, while other events may lead to emergencies or disasters with significant consequences for public health, wellbeing and for health development. The health, economic, political and societal consequences of these events can be devastating, both in the acute and long term. Developments, such as climate change, urbanization, population growth, migration and state fragility are increasing the frequency and severity of many types of emergencies.

The management of these risks are vital to health security and to building the resilience of communities, countries and health systems. Sound risk management is essential to safeguarding development and the implementation of national, regional and global strategies, in particular for implementing the Sustainable Development Goals including the pathway to Universal Health Coverage and Goal 3d (i.e. *strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks*),[[1]](#footnote-1) Sendai Framework for Disaster Risk Reduction 2015-2030[[2]](#footnote-2), International Health Regulations (2005)[[3]](#footnote-3) , Paris Agreement on Climate Change[[4]](#footnote-4)

In order to minimize health consequences and improve health, wellbeing and societal outcomes, concerted efforts from many systems and sectors are required to prevent and mitigate risks, prepare for emergencies and ensure effective response and recovery. A key role of health systems is to build the resilience of communities and countries by managing health risks in both routine and emergency situations of varying scales.

The health sector has a central role in managing the risks and reducing the consequences of emergencies due to all hazards. While its leadership in promoting health security, managing infectious risks and responding to outbreaks are clear, it also has a vital role in preventing and minimizing the health consequences of emergencies due to natural, technological, and societal hazards. It can only fulfil these responsibilities in close collaboration with at-risk communities and with other sectors.

The implementation of the International Health Regulations (2005) and development of multi-hazard emergency and disaster risk management at community, national and global levels provide good examples of progress that has been made to better manage the health risks associated with emergencies. Nevertheless many communities, sub-populations and countries remain highly vulnerable to emergencies and disasters. The ability to achieve optimal health outcomes related to emergencies has been hindered by fragmented approaches to different types of hazards, an over-emphasis on reacting to events instead of preventing and preparing properly, and gaps in coordination across the entire health system, and between health and other sectors.

1. An integrated approach to managing risks and building resilience of communities and countries

In view of current and emerging risks to public health and the need for more effective utilisation and management of resources, there is a need to consolidate contemporary approaches and practice through the conceptual framework or paradigm of “health emergency and disaster risk management” (Health EDRM).

The vision of Health EDRM is “improved health outcomes and wellbeing of people at risk of emergencies, and stronger community and country resilience and health security; and the expected outcome of Health EDRM is that “countries and communities have stronger capacities to manage the health risks associated with all types of emergencies and disasters resulting in reduced health risks and consequences.”

Key defining characteristics of Health EDRM are as follows:

* Health EDRM consists of a continuum of measures in which the emphasis is managing the risks of the potential emergency or disaster, not solely responding to the event or crisis, and building the resilience of communities and countries. It builds on the past achievements and the trends evident in public health and emergency risk management practices worldwide.
* It serves as a bridge between the multi-sectoral emergency and disaster risk management community and the health community. It recognises the roles and responsibilities of all health system actors in Health EDRM.
* It aims to provide a common language and an adaptable approach that can be applied by all those in health and other sectors who are working towards improving health outcomes and wellbeing for communities at risk of emergencies and disasters.
* Health EDRM is derived from the disciplines of risk management, emergency and disaster management, epidemic preparedness and response, and health systems strengthening. It is fully consistent with, and helps to align, health security, disaster risk reduction, humanitarian reform, climate change and sustainable development agendas.

The aim of this document is to provide Ministries of Health and other stakeholders with a summary of policy considerations for the effective management of risks of emergencies and disasters in order to reduce health risks and consequences and build the resilience of health systems, communities and countries. It supports the implementation of the Conceptual Framework for Health EDRM by providing an overview of risk management concepts, guiding principles, the components of effective Health EDRM, and concrete priorities for action. It does not replace existing regional[[5]](#footnote-5) [[6]](#footnote-6)or global frameworks[[7]](#footnote-7) or strategies, including the International Health Regulations (2005). Rather, it builds on these to incorporate multiple hazards and to embrace a comprehensive approach to risk management. The document will also assist countries to implement the health aspects of the Sendai Framework for Disaster Risk Reduction (2015-2030), the Paris Agreement on Climate Change and the pathway to Universal Health Coverage and implementation of the Sustainable Development Goals.

1. Context: Emergencies, Disasters and Health

Globally, the commonest emergencies are transportation crashes, floods, cyclones/windstorms, outbreaks, industrial accidents, and earthquakes.[[8]](#footnote-8), Approximately 190 million people are directly affected annually by emergencies due to natural and technological hazards, with over 77,000 deaths.[[9]](#footnote-9) A further 172 million were affected by conflict.[[10]](#footnote-10) Since 2011, there have been more than 1200 outbreaks, including those due to new or re-emerging infectious diseases in 168 countries. [[11]](#footnote-11)

In addition to increasing morbidity, mortality and disability, emergencies may result in severe disruptions of the health system. They interfere with health service delivery through damage and destruction of health facilities, interruption of health programmes, loss of health staff, and overburdening of clinical services. A single emergency can set back development gains by decades, including on health systems.

The financial costs of emergencies are also staggering. Emergencies caused by natural and technological hazards cause an average of $300 billion annually,[[12]](#footnote-12) while the cost of armed conflicts can run into trillions.

The expected annual losses from pandemic risk through its effects on productivity, trade, and travel has been calculated to be about USD500 billion or about 6 percent of global income per year.[[13]](#footnote-13) It is estimated that premature deaths associated with air pollution caused about US$225 billion in lost labor income to the global economy in 2013.[[14]](#footnote-14)

Most countries are likely to experience a large-scale emergency approximately every five years,[[15]](#footnote-15) while many are prone to the seasonal return of hazards (e.g. monsoonal floods, cyclones, disease outbreaks). Although most international attention focuses on high consequence disasters, hundreds of smaller emergencies occur locally each year. These smaller-scale events, such as outbreaks, floods, fires, and transportation crashes cumulatively account for a high number of deaths, injuries, illnesses and disabilities.

1. Key Concepts: Managing the Risks of Emergencies and Disasters to Minimize Their Health Consequences

As Health EDRM draws on the disciplines of risk management, epidemic preparedness and response, emergency management, and health systems, it requires the integration of core capacities developed for disease surveillance, outbreak control, pre-hospital care, mass casualty management, chemical and radiological safety, mental health, and other emergency disciplines. Health EDRM is built on the foundation provided by the capacities provided by health systems for the management of routine risks along with other sectors that collectively contribute to the resilience of communities and countries.

Policies and programmes to minimize the health and other consequences of emergencies should be based on a *risk management approach*. Risk is defined as “The combination of the probability of an event and its negative consequences.”[[16]](#footnote-16) More specifically, emergency or disaster risk is defined as —”the potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity.”[[17]](#footnote-17) Hazard-related risks can never be completely eliminated, but they can – and should – be managed. When EDRM activities are designed specifically to reduce the probability of events and to minimize health consequences, the term *health emergency and disaster risk management* can be used.

Progress has been made by countries in reducing the health and other consequences of emergencies. The most successful and cost-effective strategies often employ a comprehensive risk management approach that aims to prevent, mitigate, prepare for, respond to, and recover from emergencies. This overall approach should be applied in all emergency circumstances regardless of the cause, while incorporating specificities relevant for each hazard (e.g. biological, geological, chemical, societal). Countries have also used after action reviews and recovery from emergencies and disasters to catalyse policy changes, strengthen health systems and build capacities in ways to reduce the risk of future emergencies, applying the Build Back Better principle.

Health systems play a significant role in reducing hazards, exposures and vulnerabilities and establishing capacities that prevent the occurrence or reduce the consequences of hazardous events that may lead to emergencies; they should also ensure that they have additional capacities in place (such as event-based surveillance, multi-hazard early warning systems and emergency health services) for managing the non-routine or emergency-related risks. In large-scale emergencies, such as prolonged conflicts, which have significant health consequences and pose challenges to the delivery of even the most basic of health services, health systems must adapt and prioritise services, including assistance from national and international actors, to address the health needs of affected populations and respective sub-populations. They will also be required to plan and implement strategies to support, strengthen and restore local capacities during protracted crises and in post-disaster or post-conflict periods.

The International Health Regulations (IHR 2005) are an essential building block for the development of national Health EDRM capacities. The scope of the IHR (2005) covers biological, chemical, radiological, and nuclear hazards. Comprehensive Health EDRM reinforces the implementation of the IHR (2005), and goes further in terms of the hazards addressed (e.g. hydrometeorological and geological hazards, transportation crashes, civil conflict, air pollution, antimicrobial resistance) and the risk management measures employed (e.g. primary prevention and recovery, in addition to emergency preparedness and response), broad engagement of the health system and multiple sectors, and a stronger community focus.

Other relevant international agreements and initiatives include the Sustainable Development Goals (with focus on goal 3d), Sendai Framework for Disaster Risk Reduction (2015-2030), and the Paris Agreement on Climate Change. To be most effective, these agreements must not be applied in isolation but considered as inter-related and reinforcing.

The essence of this change in approach is summarized in the box below.

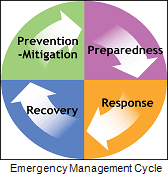
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| --- | --- |
| From | To |
| Event-based | Risk-based |
| Reactive | Proactive |
| Single-hazard | All-hazard |
| Hazard-focus | Vulnerability and capacity |
| Single agency | Whole-of-society |
| Separate responsibility | Shared responsibility of health systems |
| Response-focus | Risk management |
| Planning for communities | Planning with communities |

1. Guiding Principles

Health EDRM is founded on a set of core principles and approaches which form a conceptual basis for the overall approach to Health EDRM. Effective Health EDRM policies, strategies, related programmes and practice are guided by the following principles and approaches:

*Risk management approach*

The risks that emergencies pose to communities are directly related to the communities’ *exposure to hazards*, their *vulnerabilities to those hazards*, and their *capacities to manage* both before, during and after events. Countries and communities can therefore most effectively minimize the health and other consequences of emergencies by preventing or mitigating hazards, reducing exposure to those hazards, minimizing their vulnerabilities, or strengthening their capacities.

*Comprehensive approach across the emergency management cycle.* The comprehensive approach refers to a series of closely inter-related steps of prevention/mitigation, preparedness, response, and recovery (see diagram). It is based on the premise that prevention and mitigation measures can reduce the likelihood and severity of emergencies; that sound preparedness will lead to more timely and effective response; that coordinated response will result in appropriate targeting of the most vulnerable; and that recovery and reconstruction should be designed to reduce the risks of future emergencies (“Build Back Better” approach, including strengthening of health systems).

*All-hazards.* Different types of hazards are associated with similar risks to health and many emergency and disaster risk management functions are similar across hazards (e.g. planning, logistics, risk communications). It is neither efficient nor cost-effective to develop separate, stand-alone capacities or response mechanisms for each individual hazard. Health EDRM policies, strategies and related programmes should therefore be designed to address common issues with common capacities, supplemented by risk-specific capacities.

*Community participation and resilience.* Community members are central to effective Health EDRM, as they are the primary responders – and victims – of any emergency. The resilience of communities can be strengthened by assisting them to identify relevant hazards and vulnerabilities, and by building their capacities to mitigate, prepare for, respond to, and recover from emergencies. Building on the “whole-of-society” concept, effective Health EDRM can only be achieved through the active participation of local governments, civil society organizations, the private sector, and individual citizens.

*Inter-sectoral and multidisciplinary collaboration:* Effective management of the risks that emergencies pose to health requires strong, on-going inter-sectoral collaboration. While the health sector takes a leading technical role in managing the risk of infectious diseases, for most types of hazards and events other sectors will play a lead technical roles, e.g. agriculture for food insecurity, meteorological services for early warning of cyclones, civil protection for emergency response to floods. Many EDRM activities required to protect health are also managed by other sectors, e.g. maintenance of critical infrastructure, water and sanitation, food security.

The health sector needs to have strong relationships with the many actors who have a role to play in managing risks of emergencies to health. These include urban planners, civil engineers, operators of hazardous facilities, climate information providers, animal health professionals, the media and emergency services. Effective coordination among many disciplines in the health community is also required, such as emergency medicine, disease surveillance, mental health, nutrition, water and sanitation, health information management and many more.

*Integration of Health EDRM within health system strengthening.* Many general health system strengthening measures are among the most effective for Health EDRM. High baseline coverage rates for essential health services, e.g. through implementation of Universal Health Coverage policies, will improve overall health status, contribute to the prevention of outbreaks, and mitigate the health consequences of emergencies, Improved baseline health status is one of the most important contributing factors to community resilience.

*Ethical considerations:* Multiple sources of ethical challenges arise throughout Health EDRM. Decisions about priorities in reducing risks or responding to disasters include ethical aspects, as well as pragmatic, economic, political and other considerations. Standards of ethics and International Health Law (IHL) are relevant in Health EDRM, driven by principles such as respect for persons, justice, solidarity and cultural sensitivity.[[18]](#footnote-18) These principles enable ethical action with respect to Health EDRM policy, practice, communications, evaluation and research, and promote trust in interactions with affected communities. Governments, intergovernmental and non-governmental organizations should be take account of the diverse needs of populations, especially those with higher levels of vulnerability who should be included in participatory approaches to planning, design and delivery of services that affect them. People should have ready access to accurate, up-to-date and easily understood information about risks of emergencies, and appropriate local and individual actions. The best available scientific and socio-economic evidence, analyses and disaggregated data should be used to inform planning, implementation and evaluation of the effectiveness and impact of policies and action, especially with respect to disadvantaged groups, so that corrective adjustments can be made in a timely manner.

1. Components of Health EDRM

Effective implementation of Health EDRM strategies and related programmes and activities requires a coherent range of components at national, sub-national and local levels. The components of this framework are derived from the health system building blocks, emergency and disaster management capacities[[19]](#footnote-19), and capacities for implementing the IHR (2005).[[20]](#footnote-20)

The components of Health EDRM are organized in the following groups.

1. Policies, strategies and legislation. Health EDRM considerations should be integrated into relevant policies and strategies, supported by appropriate legislation. Health EDRM should be integrated into National Health Policies, Strategies and Plans, and aligned with the national planning and budget cycles. A national policy or strategy on Health EDRM should outline the roles and responsibilities of all public, private and civil society stakeholders, across the components of all-hazards Health EDRM, and including those responsible for planning and coordination, IHR (2005), surveillance and early warning, emergency preparedness and response, recovery, safe hospitals, and health and related services. Similarly, multi-sectoral EDRM policies and legislation should refer to the protection of people’s health and the minimization of health consequences as specific aims and outcomes of action by all sectors. Since health issues are often not well represented in inter-sectoral policies and strategies, strong advocacy may be required to ensure a more central place for health in these important multisectoral policies, strategies and initiatives.
2. Planning and coordination. A range of plans are required to implement Health EDRM, including those developed to support national implementation of the International Health Regulations and the Sendai Framework for Disaster Risk Reduction. They should be informed by the findings of risk and capacity assessments, exercises and reviews including those conducted for national multisectoral all-hazards disaster risk management and under the IHR Monitoring and Evaluation Framework. Relevant health considerations should also be fully integrated into health and multi-sectoral plans, such as national disaster risk reduction plans, preparedness and response plans, recovery plans and incident management systems. There should be coherence and continuity between the plans of different levels and jurisdictions – local, sub-national, and national. As noted, plans for emergency preparedness and response need to be regularly tested and reviewed. Business continuity plans will also be required by public and private institutions, to ensure that vital functions and services continue throughout an emergency. Health EDRM coordination mechanisms and/or dedicated units should be established to ensure appropriate coordination across the health sector and with other sectors at each level. They should also have procedures to issue requests for, receive and coordinate international health partners in case of large scale emergencies that exceed national capacities. This includes having systems in place to receive, screen, register and task these partners, as well as anticipating, requesting and receiving donations of medicines and equipment.
3. Human resources. Dedicated personnel to manage Health EDRM strategies and related programmes and to implement activities are required at national, sub-national and local levels. Key human resource management considerations include planning for staffing requirements (including surge capacity for emergency response), education and training for competency development, and occupational health and safety. Skilled human resources are central to the effectiveness of Health EDRM strategies and related programmes; they require specific and long-term investment in education and training across the spectrum of Health EDRM capacities in technical areas such as emergency planning, incident management, epidemiology, laboratory diagnostics, information management, risks and needs assessments, logistics, risk communication, and health service delivery.
4. Financing. Adequate financial allocations are required from Governments, including the Ministry of Health and other sources for developing capacities and implementing programmes and activities. Health EDRM, including prevention and preparedness measures, has a significant and recurrent cost which should be fully considered and funded as it is in other sectors related to the safety and security of populations. Financial mechanisms should also include contingency funding for response and recovery. National budgetary systems need to be sufficiently flexible to provide financing expeditiously in the aftermath of an emergency. For advocacy and planning purposes it is important to document the economic impacts of past disasters on health and the health system, as well as estimate the costs for future potential emergencies and disasters.
5. Information and knowledge management. Information and knowledge management capacities will need to be strengthened to support risk/needs assessments, disease surveillance and other early warning systems, and public communications. It is important that information collection, analysis and dissemination be harmonized across relevant sectors and mechanisms put in place to ensure that “the right information gets to the right people at the right time”. Research supports the evolution of evidence, knowledge and practice and the development of new drugs, vaccines and innovative risk management measures. Evidence-based technical guidance is required to build capacity through training programmes and health systems improvements.
6. Risk Communications. Communicating effectively, including risk communication, is a critical function of Health EDRM, especially when relating to other sectors, government authorities, the media, and the general public. The real-time access and exchange of information, advice and opinions is vital so that that everyone at risk is able to make informed decisions and take action to prevent, mitigate and respond to potential emergencies. Public information activities should be coordinated among stakeholders in order to avoid conflicting information being disseminated and be tailored to the risks and needs of diverse at-risk populations, including those with higher levels of vulnerability.
7. Health infrastructure and logistics. Making hospitals, health facilities and related infrastructure safe and secure prepared for emergencies, and energy efficient protects the lives of their occupants, enables effective health response and recovery, protects public and private investments, and supports sustainability and reduced impact of healthcare on climate and the environment. Supporting logistics will include stockpiling and prepositioning of medicines and supplies, effective supply chains, and reliable transportation and telecommunications systems.
8. Health and related services. Public health, pre-hospital and facility-based clinical services must be well prepared to respond effectively in the event of an emergency with health consequences. They should have the capacity to scale up service delivery to meet increased health needs (e.g. through increasing bed capacity, establishing temporary facilities or mobile clinics, vaccination campaigns) and to take specific measures to related to certain hazards (e.g. isolation of infectious cases). As noted, a range of health care disciplines contribute to Health EDRM and building resilience of communities and countries including preventing and mitigating risk, preparedness, response and recovery As far as possible, representatives from these various disciplines should contribute to risk and capacity assessments, planning, implementation, and monitoring and evaluation.

1. Community capacities for Health EDRM. Many lives can be saved in the first hours after an emergency through effective local response, before external help arrives. The local population will also play the lead role in recovery and reconstruction efforts after an emergency. Community capacities and activities – including those of local health workers, civil society and the private sector - are therefore central to effective Health EDRM. Participation of communities in risk assessments to identify local hazards and vulnerabilities can reduce risks prior to an emergency occurring. Civil society can contribute to community-level surveillance, household preparedness, local stockpiling, first aid training, and emergency response. The private sector may be responsible for managing critical infrastructure (e.g. water supply, electricity, transport, telecommunications) and contribute to civic activities. Their active engagement in activities related to all aspects of EDRM is therefore vital.
2. Monitoring and evaluation. Processes to monitor progress towards meeting health EDRM objectives and core capacities should be integrated into existing health sector monitoring systems. Standardized indicators to monitor risks, capacities, and programme implementation are all necessary. Sources of relevant indicators include the IHR (2005) monitoring and evaluation framework, the WHO global survey on country capacities for Health EDRM, and the WHO Southeast Asia Region’s Benchmarks for Emergency Preparedness and Response. On-going monitoring can be complemented by intermittent evaluations, especially of preparedness (e.g. simulations), response, and recovery activities.
3. Priority Areas for Implementing Health EDRM

Sound Health-EDRM policies should establish strategies with concrete actions for implementation at national, sub-national and local levels. Ministries of Health should consider the following areas as the basis of a comprehensive Health EDRM strategy:

1. Risk assessments and capacity assessments.
   1. Baseline assessments. Baseline assessments to identify national and local hazards, vulnerabilities and capacities are a requirement of effective health EDRM including planning for prevention, emergency preparedness, response and recovery. Assessments should follow standardized formats and be conducted at national, sub-national and local levels, wherever possible. They should be conducted together with other relevant sectors and updated at agreed-upon intervals. Health EDRM strategies, related programmes and activities are designed based on the findings of the assessments. Such capacity assessments should be updated on a regular basis (e.g. every 2 - 3 years). A number of global, regional and national multi-hazard and hazard specific tools are available for this purpose.[[21]](#footnote-21)
   2. Event risk and needs assessments. When an event with potential health consequences is reported (e.g. suspected outbreak, chemical spill) , an initial risk assessment will usually be required to verify its occurrence, to determine its risk to health and to identify requirements for control measures. Following events where there is an obvious health impact from the outset, (e.g. earthquakes, cyclones, outbreaks) a rapid needs assessment will be necessary to determine major health priorities, to identify on-going hazards and threats, to assess effectiveness of the local response, and to determine the requirements for external assistance.
2. Surveillance, early warning and alert systems, linked to early action. Early warning of evolving or potential hazards (e.g. disease outbreaks, cyclones, droughts) is necessary for early action, including mitigation measures and timely response. Information from disease surveillance systems, meteorological forecasting and other early warning mechanisms plays a critical role in reducing the health and other consequences of emergencies. There are several established international early warning mechanisms to which national systems may link in order to take action to prevent, detect, prepare and respond to emergencies and disasters.[[22]](#footnote-22)
3. Emergency preparedness for response across all hazards. Evidence-based emergency preparedness (and operational readiness) measures such as multihazard emergency response planning and contingency planning for specific risks, are the foundation of timely and effective response. These plans should address issues such as initial risk/needs assessments, incident/event management, communications, emergency public health measures, pre-hospital care, clinical management, and respective roles and responsibilities across sectors and agencies. A resourced emergency operations centre (EOC) to manage and coordinate the response to emergencies from all hazards should be established within the Ministry of Health or other appropriate health authority, with clear standing operating procedures. Trained and equipped teams at each level of the health system (local, regional, national) should be available for rapid and scalable responses. A range of health disciplines should contribute to emergency preparedness and response, including public health, pre-hospital care, nursing, primary care, medical and surgical specialties, infectious disease management, surveillance, laboratory services, risk communication etc. Emergency preparedness and response mechanisms, such as for outbreak alert and response and mass casualty management, need to be regularly tested through exercises at each level of the health system, and evaluated after each emergency. Countries and communities should take advantage of the opportunities in post-event recovery to strengthen capacities and reduce risks of future emergencies through effective planning and sustained implementation of rehabilitation and reconstruction measures.
4. Implementation of the IHR (2005). As noted, full implementation of the IHR (2005) is a cornerstone of Health EDRM. It is legally binding and provides an international mechanism for the effective management of biological, chemical and radiological events, especially those that have the potential to cross international borders. National action plans for developing capacities for the implementation of IHR (2005) will further contribute to broader Health EDRM as well as inter-sectoral all-hazards risk management (Section VI).
5. Safe, secure and sustainable hospitals and health facilities. Measures to strengthen the structural and functional integrity of health facilities are key to effective Health EDRM. As components of a community’s critical infrastructure, hospitals and other health facilities must continue to function throughout emergencies. They must also be capable of managing the additional patient burden during the response. New facilities should ideally be built in a manner that makes them resistant to local hazards and taking account of climate change scenarios, while existing facilities should be assessed for their safety, and security, and actions taken to make them safe, secure, and better prepared for emergencies. The WHO and PAHO *Hospital Safety Index* is an effective tool to assess facilities and to guide improvements in their safety, preparedness and emergency response capacities. Combing safety with increasing the ecological sustainability of health facilities will improve the reliability of power and water supplies and reduce waste of health facilities, thus reducing the overall impact of healthcare on climate and the environment (refer to Smart Hospitals).
6. Health sector representation within the National Disaster Management Agency (NDMA) and other platforms. Strong representation and advocacy for health in the main national and international forums is necessary to position health effectively within policy, planning, and resource allocation dialogues, and in operational coordination at local, sub-national and national levels. Without such representation health priorities risk being overlooked by disaster managers from other sectors, especially when planning in relation to natural, technological, and societal hazards.

A comprehensive strategy should comprise all components of Health EDRM including strengthening of the health work force to manage and implement Health EDRM at all levels.

1. Roles and responsibilities for Health EDRM

The development and implementation of Health EDRM requires the active participation of a wide range of sectors and stakeholders at all levels of society. The roles of some key stakeholders are outlined below.

1. Whole of government, whole of society.

Concerted efforts from many sectors are required to reduce the health risks and the consequences of emergencies and disasters. In accordance with the Sendai Framework, national multisectoral and sectoral plans related disaster risk management should recognise that improved health and wellbeing are key objectives and outcomes of collective action. people’s health – as a source of vulnerability and human resilience, health as a sector and biological hazards should be central to the mechanisms for risk and capacity assessments and the development, implementation, monitoring and reporting of risk management measures. The health sector needs to build strong relationships with many actors who have a role to play in managing risks of emergencies to health at local, national and international levels. These include urban planners, civil engineers, operators of hazardous facilities, climate information providers, animal health professionals, the media, and emergency services. Effective coordination among these sectors is critical to effective health emergency and disaster risk management.

1. Ministry of Health (MoH)

The MoH will generally lead on EDRM measures related to outbreaks. The MoH also has the primary responsibility for advocating with the NDMA or equivalent authority, and other sectors on the centrality of health to EDRM across all hazards.

A department, unit or focal point within the MoH should be tasked with the responsibility of managing the national Health EDRM strategies and related programmes, including coordination with the NDMA, other ministries, civil society, and the private sector. This unit/focal point will generally have the responsibility to convene other departments/programmes within the Ministry (e.g. health services, communicable diseases, environmental health) and to ensure their appropriate contributions to Health EDRM, including the development of essential capacities. Based on local contexts and resources, this role could be combined with the responsibilities of the National Focal Point (NFP) for IHR, which would provide a good opportunity to build broader, all-hazards Health EDRM capacities. If there are separate units or focal points for IHR and all-hazards Health EDRM, close coordination and collaboration will clearly be required.

1. National Disaster Management Agency

Many countries have an established NDMAs or equivalent that oversees the management and coordination of EDRM activities for large-scale emergencies and disasters due to most hazards. Other lead agencies may be assigned for specific types of emergencies, such as outbreaks, chemical and radiological nuclear events. The NDMA should ensure that health is fully integrated into all relevant policies and plans, that health outcomes are prioritized, and that health authorities participate actively in all related activities. They should also include health indicators in the overall monitoring of national and sub-national strategies, related programmes and plans.

1. Communities

As noted, local communities including community members, civil society and the private sector must be engaged as full partners in all Health EDRM-related strategies, programmes and activities. This will help to ensure that such strategies and activities are context-specific, culturally appropriate, efficient, and cost-effective. Local communities are well placed to play central roles in the identification of hazards, development of preparedness plans, detection and response to emergencies, and the implementation of recovery efforts.

1. WHO

WHO, through the governing bodies and senior leadership, has asserted that the protection of people from emergencies is one of the three priorities in WHO General Programme of Work 2019-2023. WHO supports the development and implementation of the full range of Health EDRM actions through the WHO Health Emergencies Programme (WHE) and the involvement of all relevant WHO technical programmes that support strengthening of national health systems and building the resilience of countries and communities. WHE’s mission is to help countries, and coordinate international action, to prevent, prepare for, detect, rapidly respond to, and recover from outbreaks and emergencies. WHO assists countries to build their capacity for all-hazards Health EDRM through provision of policy options, technical support, and establishment of technical guidance, norms and standards. Implementation of the SDGs, Sendai Framework, Paris Agreement on Climate Change and the IHR (2005) will continue to guide WHO’s actions for strengthening country capacities for managing the risks of emergencies and disasters. In addition, WHO supports national responses to emergencies from all types of hazards, including through its roles as Lead Agency of the Interagency Standing Committee’s (IASC) Global Health Cluster,[[23]](#footnote-23) as custodian of the IHR (2005), as the secretariat for the Global Outbreak Alert and Response Network, and as secretariat for the Emergency Medical Teams Initiative. To help inform rehabilitation and reconstruction efforts, WHO can support the health component of nationally led post-disaster needs assessments and recovery planning, supported by the United Nations, World Bank and European Union. WHO also plays an important convening role for Health EDRM at regional levels with Member States and partners, and at global level through facilitation of the WHO thematic platform on Health EDRM.

1. International community

The United Nations (UN), inter-governmental organizations, Red Cross and Red Crescent movement, non-governmental organizations (NGOs), private sector and other international agencies can all contribute to building essential capacities for Health EDRM at country level. They are essential partners to WHO. For example, the UN’s Capacity for Disaster Reduction Initiative (CADRI) Partnership supports governments in assessing, planning and developing national capacities for disaster risk reduction, including preparedness for emergency response. International partnership initiatives, for health security, disaster risk management, chemical and radiation safety and incident management, and food safety, can also assist countries to leverage resources, to build capacity and to link to international emergency response mechanisms, including through UNISDR, the IASC’s cluster system, Emergency Medical Teams Initiative, GOARN, and other international and regional mechanisms.

1. Conclusion

No country - regardless of economic and social development level - is immune from the increasing frequency and severity of emergencies. All countries require clear policies, strategies and related programmes to minimize health risks and their associated health and other consequences. These policies and strategies should be multidisciplinary and intersectoral,, and apply comprehensive, all hazards and risk management approaches. While Health EDRM requires multi-faceted strategies and specific actions to manage the wide range of risks of emergencies, general strengthening of a country’s health systems is also crucial. Capacity development for Health EDRM at country and local levels should build on existing programmes and frameworks, including the IHR (2005), the Sendai Framework for Disaster Risk Reduction (2015-2030), Sustainable Development Goals and the Paris Agreement on Climate Change. WHO is fully committed to collaborating with Ministries and partners to support the development of each members state’s capacities for Health EDRM and to improve the health and wellbeing of all communities at risk of emergencies and disasters.



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