

# Health Sector

## Disaster Recovery Framework Guide

UNITED NATIONS DEVELOPMENT PROGRAMME

Copyright © UNDP 2023  
All rights reserved  
United Nations Development Programme  
1 UN Plaza, New York, NY 10017, USA

UNDP is the leading United Nations organization fighting to end the injustice of poverty, inequality, and climate change. Working with our broad network of experts and partners in 170 countries, we help nations to build integrated, lasting solutions for people and planet.

Learn more at [undp.org](https://undp.org) or follow at [@UNDP](https://twitter.com/UNDP).

Reproduction: All rights reserved. Neither this publication nor any part of it may be reproduced, stored by any means or system or transmitted, in any form or by any medium, whether electronic, mechanical, photocopied, recorded or of any other type, without the prior permission of the United Nations Development Programme.

Disclaimer: The views expressed in this publication are those of the author(s) and do not necessarily represent those of the United Nations, including UNDP, WHO, the European Union, or the UN Member States. The designations employed and the presentation of the information do not imply the expression of any opinion whatsoever on the part of the United Nations Development Programme concerning the legal status of any country, territory, city, or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.



Design & Layout:  
Prime Production Ltd.

Credits:  
This Guide has been designed  
using assets from [Freepik.com](https://www.freepik.com)

# Contents

|  |           |
|--|-----------|
| List of figures and tables   | 5         |
| Acknowledgements   | 6         |
| List of acronyms   | 7         |
| <b>1 Background</b>  | <b>8</b>  |
| 1.1 Effect of disasters on health  | 8         |
| 1.2 Effect of disasters on fragile and conflict-affected settings (FCAS)   | 9         |
| <b>2 Purpose of the guide</b>  | <b>10</b> |
| <b>3 Target audience and use of guide</b>  | <b>11</b> |
| <b>4 The health sector in the Post-Disaster Needs Assessment (PDNA)</b>  | <b>12</b> |
| 4.1 Situating health recovery needs within the PDNA  | 12        |
| 4.2 Situating the PDNA and the health sector disaster recovery framework before and after an event                                   | 14        |
| <b>5 Recovery policy</b>   | <b>16</b> |
| 5.1 Developing a recovery vision for the sector  | 16        |
| 5.2 Applying guiding principles for the recovery of the sector   | 18        |
| 5.3 Developing a programmatic approach for the recovery of the health sector   | 19        |
| 5.4 Establishing prioritization within the sector  | 20        |
| 5.5 Developing recovery policies and establishing sector-level recovery programmes   | 21        |
| 5.6 Smart land use and physical planning are critical to facilitate health sector recovery   | 22        |
| <b>6 Institutional arrangements</b>  | <b>23</b> |
| 6.1 Setting clear guidelines and milestones for transitioning from disaster recovery and reconstruction to post-disaster development | 23        |
| 6.2 Legislating to clarify roles and responsibilities and establish an operational framework   | 24        |

|           |   |           |
|-----------|---|-----------|
| 6.3       | Keeping cross-jurisdictional assets in mind   | 25        |
| 6.4       | Clearing legal policies on private assets to simplify the recovery process  | 26        |
| 6.5       | Creating a legal mandate for post-disaster land use planning  | 26        |
| 6.6       | Appointing an effective recovery leader and team for the sector   | 28        |
| 6.7       | Staffing for recovery   | 29        |
| 6.8       | Clarifying the roles of international agencies and development partners   | 31        |
| <b>7</b>  | <b>Financial mechanisms</b>   | <b>34</b> |
| 7.1       | Quantifying the economic cost of the disaster for the health sector   | 34        |
| 7.2       | Developing post-disaster recovery budgets for the health sector   | 37        |
| 7.3       | Identifying sources of financing and mobilizing funding<br>for health sector recovery                                       | 38        |
| 7.4       | Setting up mechanisms to manage and track funds spent<br>for the recovery of the sector: auditing, monitoring and oversight | 38        |
| <b>8</b>  | <b>Implementation arrangements</b>  | <b>41</b> |
| 8.1       | Adopting standard implementation procedures   | 41        |
| 8.2       | Planning and preparing for recovery   | 42        |
| 8.2.1     | Ensuring government coordination and supporting<br>local implementation   | 42        |
| 8.2.2     | Establishing communications strategy for recovery   | 43        |
| 8.3       | Establishing reconstruction standards   | 44        |
| 8.4       | Developing procurement systems adapted to the recovery context  | 45        |
| 8.5       | Ensuring community participation  | 46        |
| 8.6       | Supporting the role of the private sector   | 46        |
| 8.7       | Setting up monitoring and evaluation systems  | 47        |
| 8.8       | Promoting transparency and accountability in recovery   | 49        |
| <b>9</b>  | <b>Annexes</b>  | <b>50</b> |
| 9.1       | Health recovery and resilience needs and costing tool   | 50        |
| 9.2       | Effects of the disaster with cost implications for the recovery<br>of the health sector                                     | 56        |
| 9.3       | Selected tools, guides, and sources of information  | 57        |
| <b>10</b> | <b>References</b>   | <b>59</b> |



# List of figures and tables

|                 |   |    |
|-----------------|---|----|
| <b>Figure 1</b> | The connection between HRN, PDNA, and the health sector DRF   | 14 |
| <b>Figure 2</b> | Steps of the disaster recovery framework  | 15 |
| <b>Figure 3</b> | Criteria for assessing phase of recovery  | 24 |
| <b>Figure 4</b> | Model for developing health sector recovery communication strategy  | 43 |
| <b>Table 1</b>  | Roles and responsibilities of actors and stakeholders   | 32 |
| <b>Table 2</b>  | Examples of areas that can be considered when describing the health sector baseline and the effects of the disaster | 35 |

# Acknowledgements



The Disaster Recovery Framework Guide for The Health Sector was commissioned by the United Nations Development Programme (UNDP), in partnership with the World Health Organisation (WHO) and aims to provide guidance on how to implement a comprehensive, integrated, and structured approach to disaster recovery.

This guide was prepared by an independent consultant, Ms. Clara Affun-Adegbulu, under the overall supervision of the WHO focal points, Dr. Andre Griekspoor (Senior Humanitarian Policy Advisor, WHO headquarters) and Dr. Ali Ardalan (Regional Adviser and Unit Head of the Health Systems in Emergencies, WHO Regional Office for the Eastern Mediterranean). Valuable inputs were provided by Dr. Kai von Harbou (Technical Officer Disaster Risk Management and Resilience in the Health Security Preparedness Department of WHO Headquarters) and Ms. Erin L. Downey (Consultant, Disaster Risk Management and Resilience in the Health Security Preparedness Department of WHO Headquarters). The UNDP team was led by Ms. Charlotte Yaiche (Program Manager, Disaster Risk Reduction and Recovery for Building Resilience Team (DRT), Crisis Bureau, UNDP) and Ms. Saudia Rahat (Recovery Specialist, DRT, Crisis Bureau, UNDP).

UNDP would like to thank the European Union for supporting the publication of this document through the project 'Strengthening Capacities for Post-Disaster Needs Assessment and Recovery Preparedness, PDNA Roll Out III Project'.

# List of acronyms

|               |  |
|---------------|--|
| <b>BBB</b>    | Build Back Better  |
| <b>CBO</b>    | Community-based organization                                 |
| <b>DRF</b>    | Disaster Recovery Framework                                  |
| <b>DRR</b>    | Disaster Risk Reduction                                      |
| <b>EDRM</b>   | Emergency and Disaster Risk Management                       |
| <b>EMRO</b>   | WHO Regional Office for the Eastern Mediterranean            |
| <b>EU</b>     | European Union   |
| <b>EMT</b>    | Emergency Medical Teams                                      |
| <b>FCAS</b>   | Fragile and conflict-affected settings                       |
| <b>HRN</b>    | Health Recovery Needs  |
| <b>HDPN</b>   | Humanitarian-development-peace nexus                         |
| <b>IOM</b>    | International Organization for Migration                     |
| <b>MoH</b>    | Ministry of Health   |
| <b>NGOs</b>   | Non-Governmental Organizations                               |
| <b>PDNA</b>   | Post-Disaster Needs Assessment                               |
| <b>PHC</b>    | Primary health care  |
| <b>RPBA</b>   | Recovery and Peacebuilding Assessment                        |
| <b>SDG</b>    | Sustainable Development Goals                                |
| <b>UHC</b>    | Universal health coverage                                    |
| <b>UNFPA</b>  | United Nations Population Fund                               |
| <b>UNICEF</b> | United Nations Children’s Fund                               |
| <b>UNSDCF</b> | United Nations Sustainable Development Cooperation Framework |
| <b>WHO</b>    | World Health Organization                                    |



# PART ONE

# Introduction

## 1. Background


### 1.1 Effect of disasters on health

Disasters, whether natural or man-made, have significant effects on the health of affected populations. These effects can be direct or indirect, and they can have both long- and short-term effects on health such as increased rates of injuries, disabilities, physical and mental ill-health, and fatalities. For instance, population displacement and reduced access to safe water and sanitation, adequate shelter, and primary health care services in the aftermath of disasters may increase the risk of infectious diseases such as cholera, typhoid fever, and hepatitis, as well as mortality and morbidity among people with chronic diseases like diabetes, heart disease, and respiratory disease.

Disasters can also have a negative impact on health systems and their six building blocks: service delivery; health workforce; health information systems; medical products and technologies; financing, and leadership and governance.

The provision of health services to individuals and communities can be affected, for instance, by damage to health facilities, the destruction of medical equipment and supplies, or a reduction in the capacity and performance of health workers, who may also become displaced, or themselves, injured or traumatized. The functionality of health information systems, and the availability and accessibility of medical products and technologies may be affected by difficulties with collecting, analysing, and disseminating health information; damage to infrastructure or disruptions to supply, procurement, and distribution processes. Finally, disasters can affect the financing, leadership, and governance of the health sector, by disrupting decision-making processes, increasing health care costs, and leading to a decline in economic activity, which reduces government revenues and affects governments' ability to act during health emergencies.





Disasters can also impact health through their effect on the social, economic, and environmental determinants of health. They can reduce livelihood and income generation opportunities, and exacerbate existing economic inequalities, which can increase the risk of poor health, through increased poverty, food insecurity and malnutrition. Reduced income and subsequent inability to pay for health services or medicines often increase financial barriers. In addition to this, disasters can disrupt social networks and community cohesion, which can have a significant effect on mental health and well-being, and can cause and/or exacerbate environmental degradation which can affect health.

Due to the varied and significant effects of disasters on health, it is clear that post disaster recovery is an urgent priority, as it ensures that the short-, medium-, and long-term health needs of the affected populations are met. Additionally, recovery provides an opportunity to rebuild and strengthen health systems' resilience, by tackling existing health disparities, preparing better for future disasters, and addressing the need for community participation and engagement.

## **1.2 Effect of disasters on fragile and conflict-affected settings (FCAS)**

Disasters have devastating impacts on communities worldwide, but they have particularly severe consequences in FCAS, which are often characterized by high levels of poverty, low levels of human development, weak governance, and a combination of exposure to risk and insufficient coping capacities of the state, system and communities to manage, absorb or mitigate those risks. Disasters in FCAS therefore tend to reverse development gains, and hinder progress towards the achievement of the Sustainable Development Goals (SDGs), particularly with regards to targets related to poverty reduction, gender equality, and access to education and health care.

Recovery in such contexts therefore requires FCAS-specific approaches such as: the Recovery and Peacebuilding Assessment (RPBA) (United Nations, World Bank, and European Union, 2017) and the humanitarian-development-peace nexus (HDPN) approach (Inter-Agency Standing Committee and the United Nations Working Group on Transitions, 2016; ICVA, 2018), which aim to identify and address recovery and peacebuilding needs, while building resilience, and addressing the underlying and structural drivers of the fragility.

## 2. Purpose of the guide

The Disaster Recovery Framework (DRF) Guide for the Health Sector provides guidance on how to implement a comprehensive, integrated, and structured approach to disaster recovery. Its overarching goal is to minimize the impact of the disaster on communities and help countries to recover quickly and effectively from disasters, in coordination with key stakeholders.

The DRF Guide for the Health Sector is adapted from the generic **DRF Guide**, and draws on the **Implementation Guide For Health Systems Recovery in Emergencies**, the **Health Emergency and Disaster Risk Management Framework** as well as the **Disaster Recovery Guidance Series**. The guide also makes links with multi-sectoral, government-led recovery planning processes such as the Post-Disaster Needs Assessment (PDNA) (European Union, Global Facility For Disaster Reduction and Recovery, and United Nations, 2013, 2014), and it supports the implementation of the HDPN.

The **objectives** and **intended accomplishments** of the guide are to:

1. Clarify the roles and responsibilities of the different stakeholders involved in disaster recovery, such as government agencies, non-governmental organisations (NGOs), the private sector, and international development partners, and ensure that all parties work together effectively and efficiently towards the best possible outcomes.
2. Promote coordination and collaboration among the different health sector actors and stakeholders, including through the sharing of information, resources, and best practices, to ensure that recovery efforts are aligned and complementary.
3. Improve recovery and reconstruction efforts, by providing guidance on how to assess and prioritize needs, and develop, and implement, recovery strategies which promote sustainable development practices that help reduce vulnerability to future disasters.

By following the guidance in this document, health sector actors can work together effectively to restore essential services and rebuild the health system, and in doing so, save lives, minimize the impact of disasters on health, build more resilient communities and health systems, and ultimately, contribute to advancing progress towards the Sustainable Development Goals (SDGs).

### 3. Target audience and use of guide



The primary audience for this guide is ministries of health, who should take the leadership role in health sector recovery, as well as health and health-related actors and stakeholders involved in the recovery process, such as WHO, other United Nations agencies, donors, international and local NGOs, and the private sector.

The guide can be used by governments to plan, coordinate, and implement recovery activities, and, supported by WHO as the lead United Nations agency for health, to harmonize strategies and actions for health with other actors. The guide can also facilitate the collaborative identification of priority actions and goals by all the actors, as well as strategies for how to achieve them efficiently and effectively.



© UNDP



## 4. The health sector in the Post-Disaster Needs Assessment (PDNA)



### 4.1 Situating health recovery needs within the PDNA

The Post-Disaster Needs Assessment (PDNA) (European Union, Global Facility For Disaster Reduction and Recovery, and United Nations, 2013), is a government-led process aimed at evaluating the effects and macroeconomic and human impacts of a disaster and identifying the immediate and long-term needs of the affected population. It is usually conducted in the aftermath of a disaster to help guide response and recovery efforts. The primary objectives are to identify the most critical needs of the affected communities, the extent of the damage caused by the disaster, as well as assess the capacity of local infrastructure and services to respond to the needs of the affected population.

The process of conducting a PDNA typically involves gathering information about the immediate needs of the affected population, assessing damage and loss, identifying vulnerable groups, prioritizing needs, developing a recovery plan, identifying resources and funding sources, establishing partnerships with other stakeholders, and developing timelines and milestones for recovery activities. These include priorities for Building Back Better (BBB), to reduce risks and impact of future disasters and make health systems more resilient.

In the context of the health sector, the PDNA involves evaluating the impact of the disaster and identifying the Health Recovery Needs (HRN). The HRN assessment and PDNA of the health sector usually involve:



Identifying the most critical health recovery needs of the affected population, including immediate and long-term health needs.

- + Assessing the effect of the disaster on the health system, which includes evaluating the extent of damage to health facilities, equipment, and infrastructure, as well as the capacity of the health workforce to respond to the needs of the affected population.
- + Assessing loss, including all effects and/or actions to mitigate these that lead to increased costs and/or reduced revenue resulting from the disaster.
- + Prioritizing health recovery needs, based on severity and urgency.
- + Identifying needs and opportunities for Building Back Better and health system resilience.
- + Developing a recovery strategy and plan for the health sector which addresses the immediate and long-term health recovery needs of the affected population. It is widely recognized that effective health emergency and disaster management can only be achieved through the active participation of all stakeholders, including local governments, civil society and volunteer organisations, the private sector, and individual citizens (World Health Organization, 2019), therefore, recovery plans are increasingly engaging with the whole-of-society concept. Applying this concept results in more robust recovery plan, better able to create more resilient communities.



## 4.2 Situating the PDNA and the health sector disaster recovery framework before and after an event

Key elements of a DRF for the health sector can be initiated prior to an event (ex-ante) to strengthen preparedness for recovery. Examples of activities include preparing policies, plans and protocols, implementing early warning systems, training a cadre of professionals to implement PDNAs in the health sector, and updating baseline information for the health sector.

Once a disaster event occurs and the PDNA has been completed creating a health sector DRF, specific for that event, is a critical next step. The DRF is more detailed and programmatic in scope than the PDNA; it identifies the priority activities over the short, medium and long terms, and the institutional, financing and implementation arrangements to embark on a recovery journey that is sustainable and resilient. Given that the DRF spans medium- to long-term timeframes, it provides an opportunity to include activities to strengthen preparedness for recovery (based on lessons learnt) as well as reducing risks to future hazards.

HRNs, PDNAs and DRFs are all part of a sequential process (see Figure 1). The information from the HRN feeds into the PDNA, which in turn is used to develop the health sector DRF.



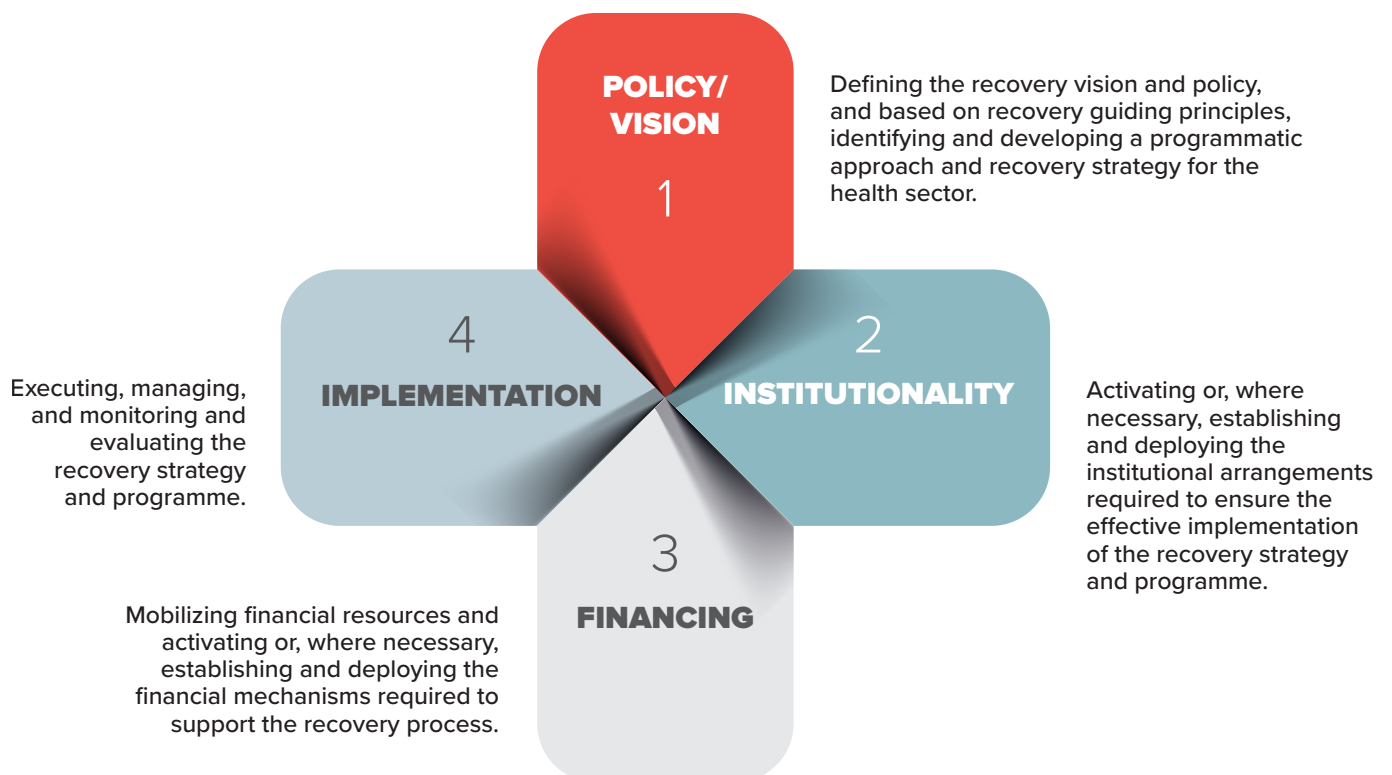
*Figure 1: The connection between HRN, PDNA, and the health sector DRF.  
Source: Author, 2023.*

## PART TWO

# The health sector disaster recovery framework



This section of the guide presents a framework for undertaking the recovery of the health sector. It outlines the four steps necessary for developing a DRF (see Figure 2) and gives an overview of: what is needed for the recovery, as well as how and when to undertake the process, who is involved in recovery, and how the recovery is carried out.



*Figure 2: Steps of the disaster recovery framework.  
Source: Author, 2023.*

# 5. Recovery policy

The first step is the development of the recovery policy, which includes the definition of the recovery vision, elaboration of the recovery strategy, and the programmatic approach to be pursued, in accordance with recovery guiding principles.

## 5.1 Developing a recovery vision for the sector

The recovery vision determines the strategic focus of the recovery process and guides the design and implementation of initiatives and programmes which are aimed at the achievement of the recovery goals. Within the health sector, these goals are: the restoration of health systems and the delivery of essential health services to their pre-disaster state; protecting communities from health risks; the building of resilience in both the population and the health systems; and the advancing of progress towards the achievement of the health-related SDGs, including Universal Health Coverage (UHC) and health security (World Health Organization, 2023c, 2023a).

The recovery vision must be underpinned by disaster risk reduction (DRR),<sup>1</sup> and Build Back Better (BBB) approaches,<sup>2</sup> which are aimed at addressing weaknesses and gaps in health systems, and improving resilience (United Nations General Assembly, 2017). Some examples of DRR and BBB interventions and activities for the health sector include the:


**1.** Strengthening of health systems to make them safer, smarter, more resilient, more equitable, and better able to fulfil their functions, by:

- + Addressing disparities in health outcomes and improving access to quality and affordable health services, particularly among vulnerable populations, for instance, by removing or reducing financial barriers to health care.
- + Ensuring that hospitals are retrofitted or rebuilt using ‘all hazard’ building codes so they remain safe and functional during future emergencies (World Health Organization, 2023b) disasters and other crises, a community must be able to protect the lives and well-being of the affected population, particularly in the

<sup>1</sup> Disaster risk reduction: an approach aimed at preventing new, and reducing existing, disaster risk, and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development.

<sup>2</sup> Build Back Better: the use of the recovery, rehabilitation, and reconstruction phases after a disaster to increase the resilience of nations and communities, through integrating disaster risk reduction measures into the restoration of physical infrastructure and societal systems, and into the revitalization of livelihoods, economies, and the environment.





minutes and hours immediately following impact or exposure. The ability of health services to function without interruption in these situations is a matter of life and death. For a safe hospital to remain accessible and functioning at maximum capacity before, during and immediately following an emergency or disaster it relies on a number of key factors: buildings that can resist exposures and forces from all types of hazards; medical equipment that is in good working order and is protected from damage; community infrastructure and critical services (such as water and electricity).

- + Rationalizing the health network, by relocating health facilities to safer areas, rightsizing or merging them with other facilities in line with changes in demography, and modernizing health services adapted to new models of care, that address shifts in burden of disease.
- + Fostering innovation and adopting new technologies to creatively respond to growing and changing demands for services, for instance, by delivering health services through telemedicine and mHealth technologies.
- + Improving the quality and quantity of the health workforce by strengthening human resources for health data and training the health workforce in line with the evidence of emerging needs that require updated models of care.
- + Investing in emergency preparedness and health emergency and disaster risk management (EDRM) capacities, such as: strengthening national Emergency Medical Teams (EMT); improving the disaster risk management capacity, epidemic early warning and surveillance capacity within the ministry of health (MoH); facilitating the institutionalization of measures which were adopted as part of the disaster response, such as the leveraging of new collaborations for improved community engagement.

**2.** Tackling of the root causes of vulnerabilities in the health system, this may involve addressing pre-existing constraints in capacity and performance of service delivery that had a direct impact on the ability of the health system to respond to disaster related increased health needs, and its ability to maintain essential quality health services during the disaster.

**3.** Reducing the impact and risks of the disaster to health, by improving immunization coverage and access to safe water, strengthening vector control, promoting risk awareness of emergencies, and providing health education, for example on sanitation and hygiene.

## 5.2 Applying guiding principles for the recovery of the sector

To ensure that the recovery vision for the health sector is achieved, the recovery process should, where possible, be guided by the following principles.<sup>3</sup>

- + Integrate recovery activities from the beginning of the emergency response.** This will ensure that humanitarian operations lay the ground for long-term recovery and contribute to the (re)building of local capacity where necessary. It will also ensure that recovery efforts can build on humanitarian programmes and catalyse sustainable development opportunities.
- + Align health sector recovery with the wider multisectoral recovery.** Integrating and embedding health sector recovery into the overall (sub)national, socio-economic recovery will facilitate resource mobilization. It will also promote multisectoral collaboration and the development of connections with other sectors which may encourage a Health in All Policies approach to policies and interventions.
- + Integrate HDPN approaches.** This is particularly important in disasters that occur in FCAS and/or during protracted humanitarian emergencies, where humanitarian, development and peace actors work concurrently. However, nexus approaches are also useful in natural, acute, and slow onset disasters like earthquakes, large floods, and cyclones, since clusters are often activated as part of the international emergency response in the aftermath of such events. Adopting nexus approaches will ensure that the various actors collaborate in such a way as to improve the efficiency, effectiveness, coherence, continuity, and sustainability of their interventions.
- + Ensure community participation and engagement.** Since populations under stress often have good information and insight into their situation, collaborating with them may promote and facilitate identification of recovery needs, and the design and implementation of context-appropriate interventions, which in turn may result in a more effective and sustainable recovery. In addition to this, working with the local community can also lead to improved transparency and accountability.

---

<sup>3</sup> Adapted from the Implementation Guide for Health Systems Recovery in Emergencies (WHO, EMRO, 2020).

- + **Ensure context-specificity.** Given that each setting is unique, it is vital to ensure there is a thorough understanding of the context, as well as conditions such as the country's resources and capacity. This will ensure that the recovery planning, implementation, monitoring, and evaluation can be tailored and adapted accordingly.
- + **Leave no one behind.** Consider how recovery activities may reinforce inequalities, and act to prevent this, by ensuring that differences in vulnerabilities and capacities are considered during policymaking and programming, and services are able to address both mainstream and specific needs. Work towards advancing progress towards the achievement of UHC and the (health-related) SDGs, by putting in place strategies that improve quality of care, financial coverage, and equitable access, particularly for vulnerable and marginalised groups.

### 5.3 Developing a programmatic approach for the recovery of the health sector

The programmatic approach is a consistent, systematic, and structured strategy for undertaking the recovery process which ensures the long-term success of the post-disaster recovery efforts, by increasing efficiency and impact, and improving outcomes, accountability, transparency, and stakeholder alignment. Within the health sector, the programmatic approach to recovery involves:

1. Conducting a comprehensive assessment of the effects of the disaster on the health sector to identify the areas that need immediate attention.
2. Using the results from the assessment to determine and prioritize the interventions that need to be implemented to restore the health system and essential public health functions to pre-disaster baseline performance, as well as the priorities for DRR, BBB and the strengthening of health system resilience.
3. Developing a strategic plan outlining the interventions to be implemented, timelines, resource requirements, and expected outcomes, in consultation with key stakeholders, including government agencies, health care providers, and communities.

4. Mobilizing the necessary resources to implement the strategic plan. This could involve increasing public spending on health, securing funding from donors, or engaging the private sector in supporting health sector recovery efforts.
5. Implementing the interventions identified in the strategic plan and ensuring that this is done in an effective and efficient manner.
6. Monitoring and evaluating the progress of the health sector recovery efforts to ensure that they are achieving the desired outcomes.
7. Establishing partnerships and coordinating with relevant stakeholders, including government agencies, and international and local organisations (both development and humanitarian), to ensure a coordinated response, that maximizes resources and expertise, and reduces the duplication of efforts.

## 5.4 Establishing prioritization within the sector

Following a disaster, it is vital to establish the priorities for recovery, to ensure that the limited resources are effectively targeted to meet the needs of the population. Within the health sector, key considerations for establishing the priorities for recovery are the nature, scope, scale and severity of the disaster, and its impact on:

- + Population health: including the number of people affected, the types of injuries and illnesses, and the overall burden of disease.
- + Vulnerable populations: including children, pregnant women, the elderly, people with disabilities, and those living in remote or hard-to-reach areas.
- + Mental health: within the general and vulnerable populations, as well as specifically within the health and care workforce.
- + Health facilities: such as hospitals, clinics, health centres, as well as important infrastructure such as sanitation, transport, and energy systems.
- + Human resources for health: both in the affected and surrounding areas, as well as more broadly across the country and/or region.
- + The delivery of essential health services, such as emergency care, primary health care, and maternal and child health services.



- + Disease outbreaks and other emergencies, particularly in contexts with existing, protracted and/or complex emergencies.
- + Interventions and investments required for future disaster prevention and preparedness measures, such as early warning systems and emergency response plans.

## 5.5 Developing recovery policies and establishing sector-level recovery programmes

A recovery policy is a set of guidelines, principles, and actions that is designed to guide the recovery process and ensure that it is coherent and consistent. The health sector recovery policy is a plan of action for the recovery of the sector that is based on the aforementioned guiding principles, and which outlines the recovery vision, the recovery priorities, and the financial, and implementation plans, for the recovery process.

The recovery programme on the other hand is a specific set of activities, initiatives, or projects that are designed to achieve the goals and objectives of the recovery process, and which are based on the recovery policy.

Ideally, both the recovery policy and programme should be developed by the MoH, with the buy-in of key actors, such as the ministry of finance. Where this is not possible, the development of the policy and programme can be carried out by the lead sectoral recovery agency, but in such cases, efforts must be made to ensure that the support of the government and other relevant stakeholders is obtained.

To ensure that the plans support health sector recovery and are effective, they should:

**1.** Be based on the health sector recovery needs and aligned with the overall DRF, and be underpinned by the guiding principles and the recovery vision. This will:

- + Ensure that social and environmental safeguards are included in the recovery and reconstruction of all health structures and infrastructures, which in turn could reduce people's exposure to future disasters and climate hazards.
- + Facilitate reconstruction by reducing uncertainty for stakeholders and the affected public, as well as removing barriers that can hinder recovery efforts.

2. Incorporate the expertise, experience, and contextual knowledge of a wide variety of stakeholders that include the community, local government, and other relevant actors.
3. Have strategies for identifying and addressing emerging recovery and reconstruction needs in anticipation of future emergencies and in response to changes to the situation.
4. Outline the timeframe, areas covered, and critical actions required to coordinate and advance decision-making about land use in the short- and medium-term, as well as who is responsible for these actions and when they must be completed. This will provide a roadmap for those involved in the health sector reconstruction and recovery projects.

## 5.6 Smart land use and physical planning are critical to facilitate health sector recovery

Land use planning promotes the effective use of resources and the achievement of desirable social, environmental, and economic outcomes, through the regulation of land use. Physical planning on the other hand, uses land plans as a framework for designing the optimum physical infrastructure for the development of settlements. Both processes are crucial to post-disaster recovery because they provide direction and guidance about where health, and related, developments should occur and what form they should take.

For the health sector, it can, for example, be desirable to reconstruct a damaged hospital in an area that is not flood prone, or in another area where it will be more accessible.



# 6. Institutional arrangements

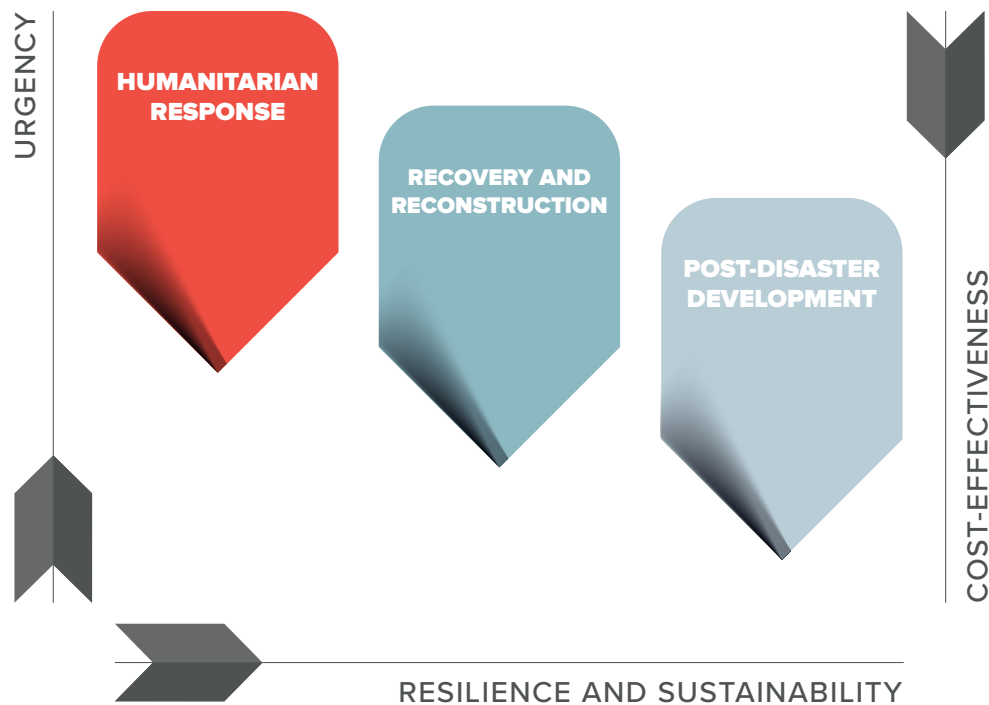
Institutions with responsibilities in the recovery process need to be identified or where necessary, set up, and resourced appropriately, early in the process. This will ensure that the capacity and capability needed to manage and implement the recovery efforts are available, and it will improve effectiveness and sustainability of recovery interventions.

The process involves confirming institutional arrangements; clarifying the roles and responsibilities of the different actors at the national, sub-national and community levels; identifying and/or establishing communication mechanisms; and coordinating the implementation of the programme. This process often brings together a range of actors including from the community and the private, public, and market-driven recovery sectors, and it is typically government-led. This is, however, not always possible, and in such cases, it is important to ensure that, as much as possible, the government remains a central part of the institutional arrangements.

## 6.1 Setting clear guidelines and milestones for transitioning from disaster recovery and reconstruction to post-disaster development

Disaster recovery and reconstruction and post-disaster development are two different but interlinked processes. Urgency is more important in disaster recovery, whereas reconstruction, sustainability, and cost-effectiveness are the main concerns in post-disaster development (see Figure 3), however, disaster recovery and reconstruction often overlaps with, and eventually feeds into post-disaster development.

In disaster recovery and reconstruction, the goal is to return both the health system and health risks to their pre-disaster baselines, and lay the foundation for resilience, whereas in post-disaster development, the goal is to build national capacities for UHC, health security, and resilience. As such the two processes require different programmatic approaches and resource mobilization arrangements, and they have different monitoring and evaluation requirements.




*Figure 3: Criteria for assessing phase of recovery (adapted by the author from the WHO, EMRO, 2020 Implementation Guide for Health Systems Recovery in Emergencies)*

Given the differences in the mandates and modalities of funding and operation of the two processes, and the fact that they typically occur alongside each other, it is important to avoid gaps and/or overlaps, by ensuring complementarity. Therefore, it is important to set clear guidelines and milestones for when the transition between the two should happen. Such guidelines and milestones should be pre-determined as part of a broader transitional strategy and framework, and they should include indicators that enable the appraisal of the progress of the recovery and reconstruction process, such as whether essential health services have been restored.

## **6.2 Legislating to clarify roles and responsibilities and establish an operational framework**

Confusion over institutional ownership and responsibility can have a negative effect on both the recovery process and its outcomes, as it can lead to duplications, failure to identify critical gaps, and institutional friction, both among the health sector actors and




more broadly, among actors involved in multi-sectoral recovery. Therefore, it is important to clarify the roles and responsibilities of the different actors and establish an operational framework including the scope of each actor's work, the duration of their action, and the funding mechanism(s) to be deployed throughout the recovery process and at each intervening stage. In some settings, there may be a need to codify this by enacting new laws or amending existing ones.

### 6.3 Keeping cross-jurisdictional assets in mind

In many countries, health sector assets exist across multiple jurisdictions such as administrative units (national versus local), or legal and economic systems (public versus private sector). It is important to take this into account when designing and implementing the recovery programme, as this may impact the effectiveness of the process and its outcomes. Assets such as health education institutions, health facilities, pharmacies or supply chain and distribution infrastructure, diagnostic centres, which are jointly owned and/or managed by the private and public sector, can all be leveraged for health sector recovery. To optimize the use of cross-jurisdictional assets and ensure timely and comprehensive recovery of the health sector, it is important to:

1. Establish effective coordination mechanisms among relevant jurisdictions, including local, regional, and national authorities, and the private and public sectors.
2. Conduct a comprehensive inventory and mapping of health sector assets across jurisdictions, ensuring that this information is regularly updated and shared among actors to facilitate resource allocation and deployment.
3. Develop mechanisms for sharing resources and establish memorandums of understanding, which establish clear protocols and procedures for requesting and accessing resources, define the roles and responsibilities of each jurisdiction, and address legal and logistical considerations for cross-jurisdictional asset deployment.
4. Promote interoperability and standardization of assets such as information management systems, where possible, to facilitate the sharing of assets.



- 
5. Address legal, administrative, and other barriers that may impede the cross-jurisdictional deployment of assets.
  6. Establish mechanisms for international cooperation and coordination, in cases where cross-border assistance is required.

## 6.4 Clearing legal policies on private assets to simplify the recovery process

Disasters can have significant impacts on privately owned health sector assets such as health facilities (hospitals, pharmacies, and laboratories), pharmaceutical manufacturers, storage and distribution infrastructure, or training services. Given that the private sector often complements the public sector and contributes to the overall delivery of health care services, it is important to clarify how and to what extent, support will be provided to the private health sector. This should be done as part of the pre-disaster recovery planning and preparedness and then reviewed and agreed upon in the aftermath of the disaster.

## 6.5 Creating a legal mandate for post-disaster land use planning

Building Back Better and reducing disaster risks in the health sector is a crucial part of the recovery process. Therefore, it is essential to have a legal mandate which provides a framework for guiding the planning, development, and reconstruction of health care structures, and ensures that they are operated in a manner that reduces vulnerability, ensures patient and staff safety, enhances resilience, and safeguards the health and well-being of communities.

These mandates often exist in many settings and simply need to be adapted to the health sector or updated and/or amended in line with new evidence; in others however, they may need to be introduced. In both cases, the legal mandate should:

- 
- + Require a comprehensive assessment of disaster risks, vulnerabilities, and hazards which pays attention to factors such as the location of health care facilities, potential hazards (e.g., earthquakes, floods, hurricanes), and the resilience of existing infrastructure.
  - + Have clauses that are specifically tailored to the health care sector, which provide guidelines for choosing the best locations for health facilities, considering issues such as accessibility, proximity to vital infrastructure, evacuation routes, and susceptibility to natural disasters.
  - + Establish stringent building codes and standards for health facilities, to ensure their structural integrity and resilience. These codes should incorporate disaster-resistant design principles, such as reinforced construction materials, seismic bracing, flood mitigation measures, and adequate emergency exits.
  - + Address infrastructure planning for health care facilities, including considerations for energy supply, water and sanitation systems, medical waste management, telecommunication networks, and emergency backup systems, it should encourage the use of sustainable and resilient options like renewable energy sources and efficient water management.
  - + Promote coordination and collaboration among actors and stakeholders, including government agencies, health care providers, urban planners, architects, engineers, and community representatives, and it should establish mechanisms for information sharing, joint decision-making, and coordinated efforts.
  - + Emphasize the importance of community engagement and the participation of local communities, health care professionals, and civil society organisations in planning and decision-making, to ensure that their perspectives, needs, and concerns are considered.
  - + Require and establish mechanisms for regular inspections, assessments, and reporting, to ensure compliance with the prescribed standards and guidelines.
  - + Promote capacity building and the training of actors involved in post-disaster land use planning in the health sector, in areas such as: DRR, resilient design, emergency preparedness, and the integration of health services into land use planning processes.

## 6.6 Appointing an effective recovery leader and team for the sector

Recovery is a government-led and government-owned process, which draws upon the capacity and expertise of national and international actors. Within the health sector, recovery is led by MoH, with support from its partners. Often, the department of policy and planning in MoH will be assigned to lead the process. In most cases, WHO, as the specialized United Nations agency for the health sector, will assist MoH with the coordination of stakeholders that support the recovery planning and implementation. Given the multiplicity of actors involved in the recovery of the health sector, it is important to appoint a leader who can guide the recovery process and ensure that there is order and a sense of direction, as well as create a team to support the leader. To ensure that the right leader is selected, and the team is suited to the task, it is important to make sure that both have the characteristics outlined below.

The leader should:

- + Have a strong knowledge of the context and health sector, and a good overview of the recovery vision, needs, strategy and programmatic approach, as well as an insight into what the health sector recovery process should look like.
- + Be skilled at making decisions, and adjusting their plans, strategies, and approaches as needed, even in difficult or uncertain situations. This is particularly important in post-disaster settings where the situation may change or evolve rapidly.
- + Be able to articulate their ideas clearly to others beyond their immediate organization, overcome institutional barriers, and communicate, and engage, with other health sector actors including stakeholders such as donors.
- + Be able to mobilize resources such as funding, equipment, and training, which are required for the effective implementation of the recovery programme.
- + Know how to manage and motivate their team, create a positive team dynamic, and encourage and foster creativity and innovation within their teams.
- + Be able to communicate their vision to their team, inspire them to work towards the recovery goals, and provide direction when needed.

The team should:

- + Be composed of individuals with a diverse range of skills and experiences, including at the national, regional, and local levels, and in different areas of health like health systems, public health, finance and budgeting, communication, and disaster risk and management, as this can foster an integrated approach to health sector recovery. For instance, when designing and implementing the recovery programme, working with:
  - + MoH departments such as those responsible for primary health care, hospital management, health programmes environmental health, financing, epidemiology, health research, or monitoring and evaluation, will ensure that a wide variety of perspectives are considered.
  - + Provincial and sub-national health authorities will ensure that potentially substantial regional variations in needs, resources and capacities are considered. It can also help to reinforce sector leadership and build trust.
- + Represent the key stakeholders in the health sector that will also play a role in the support to implementation of recovery, such as United Nations agencies (UNICEF, UNFPA, IOM, etc) and NGOs, as well as a representative from the main donors supporting the health sector or technical staff from the development banks.
- + Be flexible and able to adapt to changes, using evidence-based insight and intelligence. This is important, particularly because the recovery process can be unpredictable.
- + Have members who can work collaboratively, communicate and share information effectively, and work through challenges together.
- + Have members who have an aligned sense of purpose and a shared commitment to achieving the recovery goals.

## 6.7 Staffing for recovery

In the aftermath of disasters, there is often a significant demand for human resource capacity that can be involved in the recovery and reconstruction efforts. In many cases however, this capacity is not readily available and must be created in various ways, such as through recruitment, hiring, training, and task-shifting. To ensure that staffing for post-disaster health sector recovery is effective, several issues must be considered.



First, it is vital to ensure that the right mix of skills, qualifications, and experience is available to support each stage of the recovery. This is important, because both the available capacity and the needs will change with the situation i.e., as the switch from short-term recovery to the transition period and long-term recovery occurs.

To facilitate this, the staffing process should begin with an assessment and evaluation of the capacity required to support each stage of recovery, and then based on this, a strategy for staffing should be developed. This assessment should be continuous to consider any changes that occur as recovery progresses, and the strategy should be revised and updated regularly in line with this.

Second, it is essential that staffing builds on and develops existing capacity. For instance, recruiting from the local population will ensure that recovery efforts can begin as soon as possible, and it will ensure that local knowledge and perspectives are incorporated into recovery plans, which is a means of engaging with the community. In addition, it will contribute to building the capacity of local organisations and communities, which in turn will ensure the sustainability of recovery efforts even after external support has ended.

Third, it is important to build and strengthen partnerships between the diverse range of actors within the health sector such as government agencies, NGOs, and private sector entities, as collaboration and coordination between them, will help to ensure that resources and expertise are effectively deployed. Where possible, such cooperation should also extend beyond the health sector.



## 6.8 Clarifying the roles of international agencies and development partners

Every disaster brings together a wide variety of actors who respond to the emergency and provide support to the recovery process, and coordination can be a challenge in these situations. This is often the case in complex and protracted crises, where the recovery process may fluctuate between periods of progress and regress, the transition between response and recovery may be drawn out, there are stand-alone humanitarian coordination mechanisms, and recovery needs come on top of existing needs. To improve coordination and collaboration, it is important to clarify the roles of the various health sector actors and stakeholders, including the international agencies and development partners. This ensures that:

Duplication of efforts is reduced, and resources are allocated efficiently, as they can be targeted to the areas where they are most needed.

Accountability and transparency are enhanced since each organisation will have their own specific and allocated area of contribution to post-disaster recovery efforts.

Effectiveness and sustainability are improved, as international, national, and local actors and organisations can each leverage their comparative advantage to intervene in the recovery process efficiently, and provide the best solution to recovery challenges.

While it is impossible to provide an exhaustive list of all the actions for which each actor must take responsibility in the recovery process, the table below provides a brief list of activities to be carried out by the various health sector actors and stakeholders.



© UNDP

Table 1: Roles and responsibilities of actors and stakeholders

| ACTORS AND STAKEHOLDERS                             | ROLES AND RESPONSIBILITIES  |
|---|---|
| <p><b>Whole of government, whole of society</b></p> | <ul style="list-style-type: none"> <li>+ All actors and stakeholders to apply themselves to achieving the recovery goals, and implementing the national and subnational multi-sectoral and sectoral programmes.</li> </ul>  |
| <p><b>Ministry of Health (MoH)</b></p>              | <ul style="list-style-type: none"> <li>+ Lead and manage the health sector recovery process and related programmes and strategies.</li> <li>+ Mobilize technical, financial, and other support, including through advocacy with international partners and relevant local actors like the ministry of finance.</li> <li>+ Designate and train the recovery focal point within MoH, appoint the recovery lead, and create the health sector recovery team.</li> <li>+ Undertake the recovery process, requesting support from external partners as necessary, including by:               <ul style="list-style-type: none"> <li>+ Creating information management mechanisms and identifying and collecting data that is relevant to the needs and resilience assessment, disaggregated by sex, age and disability.</li> <li>+ Carrying out the needs and resilience assessment, and based on this, developing the recovery strategy and programme.</li> <li>+ Implementing, monitoring, and evaluating the recovery strategy and programme, as well as the recovery process and its outcomes.</li> <li>+ Reviewing the recovery strategy regularly and revising and updating it as necessary.</li> </ul> </li> <li>+ Participate in the multisectoral recovery process by contributing to efforts in other sectors.</li> <li>+ Coordinate the actors and stakeholders involved in health sector recovery.</li> <li>+ Document the recovery process, including good practices, innovative ideas and lessons learned, and disseminate findings.</li> </ul> |
| <p><b>National disaster management agency</b></p>   | <ul style="list-style-type: none"> <li>+ Oversee the management and coordination of recovery related EDRM activities.</li> <li>+ Ensure that health is fully integrated into all relevant policies and plans, health outcomes are prioritized, and health authorities participate actively in all related activities.</li> <li>+ Ensure that health indicators are in the overall monitoring of national and subnational EDRM strategies and related programmes and plans.</li> </ul>   |

| ACTORS AND STAKEHOLDERS   | ROLES AND RESPONSIBILITIES  |
|---|---|
| <b>Communities</b>  | <ul style="list-style-type: none"> <li>+ Engage as full partners in all health recovery strategies, programmes, and activities.</li> <li>+ Play a central role in the assessment of recovery and resilience needs, and the development and implementation of the recovery plan.</li> </ul>  |
| <b>Community-based organisations</b>                            | <ul style="list-style-type: none"> <li>+ Contribute to the assessment of recovery and resilience needs, the identification of people at risk, and the development and implementation of the recovery plan.</li> <li>+ Provide community-based services to meet the needs of the population e.g., family doctors, nurses, midwives, pharmacists, community health workers.</li> <li>+ Communicate with the community, disseminate information, and build public confidence.</li> </ul>   |
| <b>WHO</b>  | <ul style="list-style-type: none"> <li>+ Provide countries with technical, financial, and other support for all health sector recovery activities, including the needs and resilience assessment, elaboration of the recovery strategy, resource mobilization, and the design, implementation, monitoring and evaluation of the recovery programme.</li> <li>+ Build government capacity in areas relevant for recovery, such as the long-term management and administration of the health system, or the development of strategies for increasing domestic financing and transitioning the country away from external funding.</li> <li>+ Lead and manage coordinated support to MoH for the health sector recovery process and related programmes and strategies, where necessary.</li> <li>+ Participate in the multisectoral recovery process by contributing to efforts in other sectors.</li> </ul> |
| <b>International community and other health sector partners</b> | <ul style="list-style-type: none"> <li>+ Participate in and contribute to the coordinated support to MoH, based on mandate, areas of expertise, resources, and capacities.</li> </ul>   |

Source: Author, 2023.

# 7. Financial mechanisms

Post-disaster recovery demands significant financial resources, this is due to the high costs and expenditures associated with repairing and reconstructing facilities and restoring services, and also the impact of the disaster on the availability of resources. This is particularly challenging in FCAS, where resources can be scarce, even in non-disaster periods. Within the health sector, examples of this include the effect of the disaster on the financial resilience of a country, and the impact of this on the allocation of resources to the health sector. It is therefore important, for financial resources to be mobilized and deployed in an effective and efficient manner, which can be achieved through the structured approach to financial planning, budgeting, forecasting, and reporting that is described below.

## 7.1 Quantifying the economic cost of the disaster for the health sector

Quantifying the cost of the disaster requires an assessment of its effects on all aspects of the health sector, including with regards to the delivery of essential services.

This assessment may occur as part of two distinct but interrelated processes, the first being the initial, and often rough, economic impact costing estimate that results from the PDNA process, while the second is the assessment that occurs specifically as part of the DRF process. These DRF assessments tend to be more in-depth and comprehensive, and include, the evaluation of the disaster-induced damage, and a facility-by-facility appraisal by a civil engineer. Such assessments also typically occur later, which means that they can consider work such as initial repairs to health facilities, which was already carried out as part of the response. In both cases, the assessments can be stand-alone processes, or they can be carried out as part of wider multisectoral socio-economic assessments.

While some countries may be able to undertake such assessments independently, others may require external support, which they can request through the coordinated PDNA and DRF processes. Nevertheless, whether countries use their own assessment or the PDNA, the methodology remains roughly the same. In each case, the process involves describing the pre-emergency context and the effects of the disaster on the health sector.

These effects, which should include all interventions that are related to the disaster, as well as those that have resulted in increased expenditures and/or reduced revenue, should be used to define recovery needs. Following this, the recovery needs be translated into economic damage and loss, and assigned a monetary value. Table 2 provides some examples of areas that can be considered and included in the description.

A costing tool that is based on the PDNA methodology and pays attention to both the health system and the essential public health functions, can be found in Annex 1. The tool can be adapted to different country contexts, and used at the local, district, provincial and national levels.

*Table 2: Examples of areas that can be considered when describing the health sector baseline and the effects of the disaster*

| THEME                   | HEALTH SECTOR BASELINE  | EFFECTS OF THE DISASTER   |
|-------------------------|---|---|
| <b>Infrastructure</b>   | <ul style="list-style-type: none"> <li>+ Characteristics of the health network, including public and private health facilities and their assets (type, level, location, equipment, medical supplies, owner).</li> <li>+ Level of safety in facilities, based on the safe hospital assessment.</li> </ul>  | <ul style="list-style-type: none"> <li>+ Damage to or loss of infrastructure, such as health facilities, storage and distribution systems, health information systems, pharmacies, specialized clinics, etc.</li> <li>+ Damage to or loss of medical training institutes (often fall under the ministry of higher education).</li> </ul>  |
| <b>Service delivery</b> | <ul style="list-style-type: none"> <li>+ Key health status indicators, including the prevalence and incidence of communicable, non-communicable diseases, reproductive health, etc.</li> <li>+ Coverage of, and access to health services, including insurance coverage, user fees, and the contents of the basic packages of health services.</li> </ul> | <ul style="list-style-type: none"> <li>+ Increased health needs, disaster specific and general morbidity.</li> <li>+ Establishment of temporary and/or mobile health facilities during the reconstruction period.</li> <li>+ Increased physical, geographic, financial, and other barriers to accessing health care services.</li> <li>+ Loss of revenue in the public and private sector while facilities are non-functional.</li> </ul> |



| THEME                           | HEALTH SECTOR BASELINE   | EFFECTS OF THE DISASTER   |
|---------------------------------|--|---|
| <b>Service delivery (cont.)</b> |  | <ul style="list-style-type: none"> <li>+ Human resources for health, and their ability to deliver care affected.</li> <li>+ Absenteeism, including injury and death among health workers, relocation from non-affected areas.</li> </ul>  |
| <b>Governance</b>               | <ul style="list-style-type: none"> <li>+ Leadership and management of the health sector, including district health management, community involvement, Health Emergency Information and Risk Assessment (HIMS), Early Warning and Response Network (EWARN), health emergency risk management capacity, health funding and budgets.</li> </ul> | <ul style="list-style-type: none"> <li>+ Need for emergency and risk management, including the coordination of the disaster response and recovery.</li> </ul>   |
| <b>Population health</b>        | <ul style="list-style-type: none"> <li>+ Key indicators of preventive programs, such as immunization.</li> <li>+ Health risk assessments and mapping.</li> <li>+ Determinants of health, and vulnerabilities based on factors such as gender, age, disability, etc.</li> </ul>   | <ul style="list-style-type: none"> <li>+ Increased transmission of communicable diseases, and the potential for epidemics.</li> <li>+ Increased malnutrition risks.</li> <li>+ The need for public health interventions, such as health promotion, vector control, access to safe water and vaccination campaigns to reduce risks.</li> </ul> |

Source: Author, 2023.

## 7.2 Developing post-disaster recovery budgets for the health sector

Once the economic cost of the disaster has been estimated, the next step is to determine the recovery and resilience needs and develop an investment plan.

The recovery needs can be identified and estimated from the analysis of the effects translated in damages and loss as described above, as well as based on their projection over the duration of the recovery period. The resilience needs, on the other hand, is the cost of addressing the weaknesses and gaps in the health system that were revealed by the disaster, as well as those linked to building health system and community resilience capacities. They include interventions that would reduce the risks for future disasters, as well as addressing shortcomings in preparedness and response to the current emergency.

Where relevant, existing national health policies, strategies and plans, as well as national action plans for health security (NAPHS) should inform priorities for strengthening resilience, and investments in the health sector. Examples of priorities for risk reduction and resilience that may be considered include:

- + International Health Regulations (IHR) core capacities (World Health Organization, 2016; WHO EMRO, 2023)
- + Community communication and engagement.
- + Protocols for maintaining essential health services.
- + Protocols for maintaining stocks, procurement, and supply chain.
- + Human resources for health, particularly training, education, and deployment.
- + Financial protection policies, including suspending user fees and compensating providers.

At this stage, the recovery and resilience strengthening needs should be assigned a monetary value with unit and total costing. A number of tools that may be used to support the assessment and costing of the recovery and resilience needs are included in the annex (9.1 – 9.3).

## **7.3 Identifying sources of financing and mobilizing funding for health sector recovery**


The next step is the identification and mobilization of financial resources for recovery, based on the results of the assessment and the cost of the recovery strategy.

Some countries may be able to cover the health sector recovery costs from their domestic funding and it may be sufficient to advocate with governments to prioritize investments in the health sector. Others, however, may need to mobilize external funding in the form of aid, loans, and other types of budget support. In such cases, the health sector development budget should be adjusted to account for damages and loss incurred because of the disaster, with estimates of how these costs continue till the end of the recovery period. Often, the results from the PDNAs are used for donor conferences, with a more detailed investment plan for recovery and costing, done during the DRF process. Countries should also advocate for flexible funding mechanisms, which link humanitarian response and development assistance, support multi-year planning, and facilitate the transition between the different phases of recovery.

In countries with substantial donor funding, where health donor groups exist, such groups can be leveraged for mobilizing resources, and they can be used to follow up on pledges, and implement systems which map resources and track implementation of disbursements.

## **7.4 Setting up mechanisms to manage and track funds spent for the recovery of the sector: auditing, monitoring and oversight**

The tracking and management of post-disaster recovery funds is important for transparency and accountability, both to the stakeholders and the affected population. It is important to see that the government is ensuring that resources are spent for their intended purposes, sufficient resources are allocated to the sectors and projects in need, and the amount of financing distributed is proportionate to the needs of recipient sectors or projects. Contributors to the recovery financing, on the other hand, often require assurance that resources are being allocated efficiently, that complementarity is assured, and that specific sectors and subsectors are financed proportional to needs.



Aid tracking is also crucial because it supports effective decision-making, facilitates coordination among stakeholders, helps to identify gaps, facilitates monitoring and evaluation and the learning necessary for improving future disaster response and recovery efforts. Yet, the process is often complicated, because of the various sources and timeframes of funding, and the various channels through which funds are allocated. To address this challenge therefore, it is important for the health sector recovery team to set up effective mechanisms which can be used for the auditing, monitoring, and oversight of health sector funding as soon as possible.

In designing such mechanisms, it is vital to note that the monitoring system that is most appropriate, depends on the magnitude of the disaster, number of actors engaged in recovery spending, quality of their reporting, and existing capacity of the national agency responsible for it. Beyond this, it is important to consider the following:

**1.** An important aspect of fund tracking is the identification of areas with financing surpluses and deficits. Key benchmarks for the monitoring and evaluation system are the production of timely and comprehensive estimates and reports of the:

- + Funds allocated and spent including the domestic, international, public, and private sources.
- + Economic and social impacts of the disaster.
- + Health sector recovery progress.

**2.** Since monitoring and evaluation systems must be deployed as soon as possible in the aftermath of disasters, the design and testing of such systems should be done as part of pre-disaster planning and preparedness, ideally, by governments. This will ensure that the most appropriate system will be chosen, and it can be mobilized quickly.

**3.** Given that health sector recovery occurs as part of wider multisectoral recovery processes, auditing and monitoring oversight should be designed to happen at three levels: the health sector level which feeds into overall recovery monitoring; programme level monitoring, which consolidates the reporting of each programme; and individual project monitoring. The auditing and monitoring system should be designed to integrate oversight at all three levels, and this may mean that special additional systems are required to monitor inflows, use, and impact of recovery financing.

#### 4.

External and internal audits are a key part of the monitoring and evaluation process, and since they serve different purposes, they should both be carried out on a regular basis.

In general, the scope of an external audit is much more defined with a set end. External audits typically focus on the accuracy of historical financial statements or focus on a distinct event and ask: ‘what, if anything, went wrong in managing recovery expenditures?’. The scope of internal audits is broader and more open-ended; they focus on an ongoing process, and assess risks and controls to answer the question, ‘what could go wrong in managing recovery financing at various levels?’. External auditing organisations, such as accounting firms, can also perform an audit of an organisation’s internal control over financial reporting, and identify gaps between observed processes and controls, and standards adopted by international bodies for acceptable internal controls.

In selecting an external auditor, both the government and the external auditor need to ensure that the selected auditor is independent from the government and does not have any interests that would prevent the auditor from exercising objective judgement.



© UNDP / Piyal Adhikary



# 8. Implementation arrangements

Clear implementation arrangements, including coordination mechanisms, stakeholder engagement, resource management, monitoring and evaluation, capacity building, and effective communication, can ensure that health sector recovery efforts are efficient, effective, and sustainable. These arrangements can also facilitate collaboration and communication between health and other sectors, ensuring that multisectoral recovery is comprehensive and holistic, and ultimately, leads to an increase in the community's resilience.

Establishing implementation arrangements for the post-disaster recovery of the health sector requires careful planning and there are several steps to consider. This chapter provides an overview of some of them.

## 8.1 Adopting standard implementation procedures

Once resources have been mobilized for recovery, the next step is for institutional arrangements for the implementation of the recovery strategy to be made. The strategy should contain two main components: an operational plan, and a monitoring and evaluation plan with key indicators, tools, and framework, for both short- and long-term recovery, as well as the transition phase.

The strategy should be based on the results of the assessment, and prioritize the different areas of recovery by level of need. It should be aligned with national and health sector specific priorities, national health development plans, NAPHS, the Health EDRM, the United Nations Sustainable Development Cooperation Framework (11) and should build on the Multi-Year Humanitarian Response Plan, where this exists. In cases where external funding is required, it will be important to update the assessment and re-prioritize the recovery and resilience strengthening needs, after pledges have been made and funds have been committed. This will facilitate the elaboration of a recovery strategy that is fit-for-purpose, since funds made available for recovery are often less than the estimated need.

The implementing team needs to be well coordinated and have the technical, administrative and any other capacity that is required, and due consideration should therefore be given to planning and preparing for recovery.



## 8.2 Planning and preparing for recovery

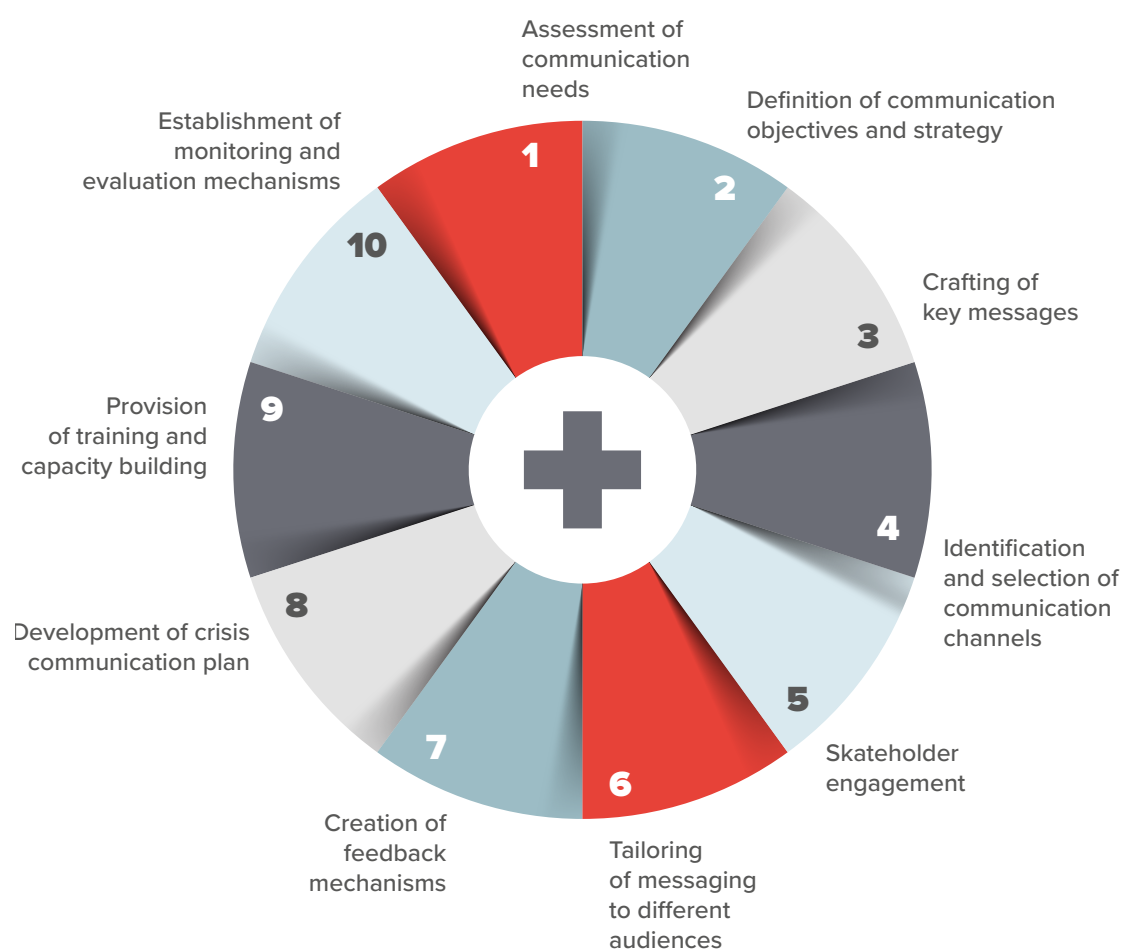
To ensure the efficacy and efficiency of recovery interventions, ministries of health and other health sector actors need to prepare for recovery and anticipate how they will engage with and operate within the wider multisectoral recovery process. These planning and preparatory activities should focus broadly on creating the mechanisms that will facilitate coordination and collaboration during the recovery process and improve the sustainability of interventions. Such activities may include:

### 8.2.1 Ensuring government coordination and supporting local implementation


- + Within MoH, appoint a recovery leader to coordinate the health sector recovery process, who will also participate in multisectoral recovery processes.
- + Within the WHO country office, designate a recovery focal point to support MoH.
- + Create an actor map to get an overview of the health sector actors, including those that are involved in implementing the recovery process, such as the private sector, WHO and other United Nations agencies, local and international NGOs, as well as those whose actions can influence the recovery, such as donors and ministries of finance. Seek to clarify their roles and responsibilities.
- + Brief the focal points and key partners on the health sector recovery process, explaining its objectives, the approach to be taken, the potential constraints and opportunities, and how it fits with wider multisectoral recovery processes.
- + Provide training on health sector recovery, including the DRR and BBB approaches, and the specificities of the different stages of recovery.
- + Adapt the guidance in this framework to the country context, with particular focus on the assessment and the tools and methods that are available.
- + Determine the data that will be required for carrying out the health sector recovery and resilience needs assessment, collecting baseline information on the health sector, identifying the effects of the disaster, and estimating the economic cost of the disaster for the health sector.
- + Determine the tools and sources of information that are needed for the assessments and the other aspects of the recovery process and those that are available. Review the tools contained in this guide and adapt them to country context where necessary.

## 8.2.2 Establishing communications strategy for recovery

Communication and ongoing dialogue are essential to the success of the health sector recovery process, because they allow critical information to be shared accurately and promptly, facilitate coordination between the stakeholders, and help to manage public perception. Ensuring that communication and information sharing is seamless, can however be difficult to achieve, given the volume of actors and stakeholders involved in the health sector and the differences between them. Dealing with this challenge requires a strategy, and this can be developed based on the model illustrated by Figure 4.



*Figure 4: Model for developing health sector recovery communication strategy.  
Source: Author, 2023.*



To develop an effective communication strategy, it is important to begin by conducting an assessment to understand the communication needs. This involves identifying the target audience: including health care providers, affected communities, government agencies, donors, and the media, determining their information requirements, preferred communication channels, and identifying potential barriers, as well as the most effective means of communicating with them.

Next, is the development of a communication plan. This involves defining the objectives, which may include providing updates on recovery progress, promoting health messages and preventive measures, addressing public concerns, and fostering community engagement; identifying and developing key messages, and tailoring both the messages and the communication materials to the different audiences; and developing a crisis communication plan which outlines protocols for addressing concerns that may arise during the recovery process.

Third is capacity building and the provision of training to communication professionals and other relevant actors, to enhance their skills in effective communication, media engagement, and crisis communication management.

Fourth is the establishment of partnerships and collaborations with stakeholders such as health care providers, government agencies, community leaders, NGOs, private sector representatives, and local media outlets, to encourage their participation in disseminating information, addressing public concerns, providing accurate updates and leveraging their networks and expertise to maximize the reach and impact of the communications strategy.

Fifth and final, is the creation of feedback and monitoring and evaluation mechanisms, to promote two-way communication with the relevant stakeholders, as well as to facilitate the assessment of the effectiveness of the communications strategy.

### **8.3 Establishing reconstruction standards**

As the recovery process moves into the implementation phase, there will be a need to establish reconstruction standards, to ensure that the health structures that are built or repaired according to BBB and DRR principles are able to withstand future hazards and provide quality health care services. For example, after an earthquake, it is vital that the reconstructed health facilities conform to appropriate seismic safety, quality, technological,



and environmental standards, and are designed in a way that ensures that service delivery can continue safely during emergencies. Furthermore, facility standards may need to consider new models of care, adapted for example, to address shifts in burden of disease from communicable to non-communicable diseases, or shifts from hospital-based to ambulatory care.

To ensure that such standards are fit-for-purpose, it is essential that the development process is inclusive and considers the perspective of a wide range of stakeholders from both the government and civil society, including NGOs and the private sector. These standards should be tailored to the disaster, and detailed well ahead of actual implementation to ensure that they can be adapted and improved before larger scale reconstruction starts. Since compliance with these standards is essential to resilient recovery, it is important to establish mechanisms for monitoring and addressing non-compliance.


## **8.4 Developing procurement systems adapted to the recovery context**

The rapid procurement of goods and services can be a crucial element in the efficient and successful recovery of the health sector, yet many countries lack adequate procurement systems, and in particular those that can be deployed in the aftermath of disasters. This can lead to haphazard processes, gaps in implementation, possible corruption, and the abuse of procurement procedures. To prevent this, it is important for governments to develop and test systems such as pre-arranged procurement, and fast-track procurement systems, which can facilitate the purchase of goods and services at short notice.

Pre-arranged procurement pre-establishes a list of qualified contractors, based on the assessment of factors such as their areas of expertise, the cost-benefit analysis, and their ability to contribute to the health sector recovery process. Having this prequalifying system expedites the evaluation of tender responses and the issuance of contracts, and can help to eliminate unsuitable contractors who may significantly underbid more experienced competition, but lack the expertise required to successfully implement the project.

Fast-tracking procurement ensures that goods and services reach the locations where they are required, by employing simplified, mutually agreed-upon tender and purchasing processes. This could involve, for instance, speeding up procurement by choosing to use only one source for the acquisition of particular goods and services.





While a variety of rapid procurement systems may be used by the different health sector actors, it is helpful that all stakeholders that procure goods and services share some of the same procedures, as this will be important for auditing, monitoring, and oversight.

## 8.5 Ensuring community participation

Community participation in health sector recovery should be encouraged and supported as much as possible, because it can help to ensure that recovery efforts are relevant, effective, and sustainable.

Communities have first-hand knowledge of their context and situation, which means that their involvement in the needs and resilience assessment can help to strengthen it. For instance, involving district and village health committees in the assessment can help with identifying the priority health needs, gaps in disaster preparedness and mitigation, and areas for action on resilience building.


Communities can serve as resources for post-disaster recovery, and they can help to improve transparency and accountability. Since community health workers, are often members of the communities they serve, they have a deep understanding of local needs, cultural dynamics, and community resources, which means they can be trusted sources of information, and can provide valuable insights and feedback that can guide recovery efforts.

Community members can use their collective voice to advocate for changes that can improve disaster and risk management, for instance, by holding local and national policymakers accountable for ensuring that they have the resources required to recover from the disaster.

Community participation is an essential component of primary health care, and as such, existing community engagement structures and initiatives can be leveraged for recovery. Health sector recovery actors can also collaborate and partner with community-based organizations (CBOs) which have already established trust and networks within the community.

## 8.6 Supporting the role of the private sector

Collaborations between the public and private sectors can play a vital role in supporting the recovery of the health sector after a disaster, because the strengths, capabilities, and resources of both sectors can be leveraged for responding to recovery and resilience



needs. They can improve access to resources, help to distribute risk, improve accountability, reduce cost, increase efficiency, and foster innovation which can, ultimately, drive positive change and improve health outcomes for communities affected by disasters. It is therefore important to facilitate the participation of the private sector in health sector recovery, and this can be done in several ways.


One example of this is public-private partnerships which bring together the resources and expertise of both sectors to support the recovery of the health sector, through joint funding, expertise and best practices sharing and coordination to develop solutions to the challenges faced by the health sector. In addition to this, as the private sector is often well-positioned to drive innovation, governments can provide incentives to encourage and support private sector innovation, by providing funding opportunities, regulatory support for new technologies and approaches and a supportive environment. Finally, capacity building can be an important way of supporting the private sector, this can include training and education programmes to build the skills and knowledge needed to support health sector recovery efforts.

## **8.7 Setting up monitoring and evaluation systems**

During and after the implementation of the recovery plan, it is important to monitor and evaluate the process, to learn from both successes and failures. A good example of this is the Tsunami Recovery Impact Assessment and Monitoring System which was setup in the aftermath of the 2004 Indian Ocean Tsunami to monitor the rate, direction, and outcomes of recovery.

Recovery monitoring and evaluation is a two-part process, the first of which is an assessment of the outcomes of the recovery process. Here, the monitoring and evaluation tool designed during recovery planning, and the key indicators defined in the recovery strategy are used to quantify and measure the outcomes. Where possible, these indicators should align with those used to monitor the implementation of the national health policies, strategies and plans, NAPHS, and United Nations Sustainable Development Cooperation Framework (UNSDCF). The results can be used to inform revisions and adaptations to the recovery strategy.

The second part of recovery monitoring and evaluation focuses on the recovery process itself and assesses the extent to which the operationalization of the health sector recovery



programme has been successful. Results and lessons learned can be used to improve the implementation of the recovery process, and can support the design of innovative and effective health sector recovery interventions.

While there are no hard and fast rules with setting up monitoring and evaluation systems, such systems should:

- 1.** Define the objectives and outcomes of the health sector recovery process, as well as a set of indicators for measuring progress towards these objectives. These indicators should be specific, measurable, and relevant.
- 2.** Identify a baseline for each indicator, to provide a starting point for monitoring progress, help to track changes over time, and assess the effectiveness of the recovery strategy.
- 3.** Have a plan that outlines how the recovery strategy and process will be monitored and evaluated, as well as the methods and criteria for doing so, and the frequency and methods of data collection for each indicator. This plan should include the roles and responsibilities of each actor involved in health sector recovery, as well as any data sharing agreements.
- 4.** Map and monitor the functionality and performance of the health network, and undertake disease surveillance to identify possible outbreaks.

In addition to the above, data should be collected and analysed regularly to track progress towards the recovery objectives, and this should be used to inform decision-making and adjust the recovery strategy as needed. The results of the monitoring and evaluation should also be communicated regularly to all relevant health sector actors and stakeholders to ensure that transparency and accountability are maintained. Finally, the monitoring and evaluation system itself must be continuously evaluated to ensure that it is effective and relevant. This could involve revising indicators, improving data collection methods, and adjusting the monitoring and evaluation plan based on feedback from stakeholders.



## 8.8 Promoting transparency and accountability in recovery

Promoting transparency and accountability is essential to ensuring the success and sustainability of health sector recovery efforts. It builds trust between the various stakeholders, enhances efficiency and effectiveness, increases stakeholder participation and engagement, reduces corruption and fraud, improves public perception and reputation, facilitates learning and improvement, and promotes fairness and equity. Some strategies for promoting transparency and accountability in health sector recovery include:

- + Developing clear policies and guidelines on roles and responsibilities, decision-making processes, and reporting requirements, and communicating these to all the stakeholders involved in health sector recovery efforts.
- + Involving all stakeholders, including the public, in decision-making processes and ensuring that their input is considered.
- + Ensuring that decision-making is based on data and evidence, so decisions are made objectively and resources are used efficiently and effectively.
- + Establishing independent oversight mechanisms, to monitor and evaluate the effectiveness of health sector recovery efforts.
- + Fostering a culture of transparency and accountability within the health sector and among all stakeholders involved in recovery efforts.
- + Providing regular updates and reporting on the progress of health sector recovery efforts, including successes and challenges.
- + Ensuring compliance with regulations and laws and holding all stakeholders accountable for their compliance.

# 9. Annexes

## 9.1 Health recovery and resilience needs and costing tool

|   | Damage, million US\$  |  | Baseline |
|---|---|--|----------|
|   |   | Assumptions for cost estimates   |          |
| Infrastructure and assets   | <b>Estimation of damage to infrastructure and assets</b>  |  |          |
|   | <b>Facilities fully destroyed</b>   | (a) Number of health facilities by type<br>Determine threshold for fully destroyed (e.g., > 40% of total m <sup>2</sup> damaged) |          |
|   | University hospitals  | (b) Average replacement unit cost, US\$  |          |
|   | State hospitals   |  |          |
|   | Oral and dental health centres  |  |          |
|   | Provincial and district health directorates   |  |          |
|   | Community health centres  |  |          |
|   | Refugee health centres  |  |          |
|   | Family health centres   | (a)x(b)=(c) Estimated value of damage, (US\$)  |          |
|   | Laboratories  |  |          |
| Pharmacies  |   |  |          |
| <b>Facilities partially destroyed</b>   | (d) Number of health facilities by type   |  |          |
| University hospitals  | (e) Average repair cost, (US\$)<br>Usually % of full reconstruction cost (e.g., 25%)  |  |          |
| State hospitals   |   |  |          |
| Oral and dental health centres  |   |  |          |
| Provincial and district health directorates   |   |  |          |
| Community health centres  |   |  |          |
| Refugee health centres  |   |  |          |
| Family health centres   |   |  |          |
| Laboratories  |   |  |          |
| Pharmacies  |   |  |          |
|   | (d)x(e)=(f) Estimated value of damage, (US\$)   |  |          |
| Check if damaged training and education infrastructure of the health workforce (doctors, nurses, midwives, lab technicians, rehab, etc) are included in the education sector. |   |  |          |
| (g) Equipment destroyed   | Can be included under the facilities, or separate. Average unit costs, (US\$) (for fully and partially destroyed health facilities) against standards lists of furniture, equipment, and medical supplies by type of facility |  |          |
| (h) Furniture destroyed   |   |  |          |
| (i) Medical supplies destroyed  |   |  |          |
| Total estimated damage and subsequent reconstruction needs, (US\$)  | Sum of costs of (c)+(f)+(g)+(h)+(j)   |  |          |





|   |  | Damage, million US\$  |  |          |
|---|--|---|--|----------|
|   |  |   | Assumptions for cost estimates   | Baseline |
|   | <b>Estimation of change in economic flows (CEF)/loss</b>   |   | <b>Assumptions and unit costs for estimating loss and subsequent recovery needs</b><br>Consider the duration of reconstruction and recovery period, in months or years, as relevant for the budget line. Evolution of costs over time (decreasing, increasing, or remaining stable over recovery periods).         |          |
| <b>Infrastructure</b>   | Cost of demolition and rubble removal  |   | Average unit costs by type, and for totally and partially damaged. References of unit costs per m <sup>2</sup> from core team.   |          |
| <b>Service delivery and access</b>  | Costs for temporary and mobile health facilities, including EMT and ambulances   |   | Costs for temporary health facilities (fixed or mobile, or rent) both to replace damaged infrastructure, as well as additional facilities in areas hosting IDPs e.g., Number of mobile clinics or EMT deployed per month (expected to decrease over time) x unit costs x number of months deployed = value of loss |          |
|   | Higher expenditures for treatment and long-term care for physical trauma*  |   | Number of people injured, average unit costs for moderate and severe injuries per month x period for rehabilitation and care   |          |
|   | Higher expenditures for treatment and long-term care for mental health and psychosocial services   |   | Increase in moderate and severe mental health problems, average unit costs per month, period for rehabilitation and care (decreases over time)   |          |
|   | Higher expenditures for overall increased caseload. Often estimated as a % increase compared to previous period, e.g., 5-10%, of normal health service budget      |   | (a) Pre-disaster total number of patients per month<br>(b) Post-disaster total number of patients per month<br>(c)=(b)-(a) increase in number of patients<br>(d) Average cost of treatment per patient<br>(c)x(d)= Increased costs   |          |
|   | Cost of rotational health care personnel from other provinces  |   | Total costs per month (total number of staff deployed, unit costs for overtime, allowances, etc). Likely to decrease over time.  |          |
|   | Cost of temporary housing for health workers   |   |  |          |
|   | Cost of accelerated training of health staff, to address specific increased and new needs  |   | Number of staff trained x number of training x unit costs = value of loss  |          |
|   | Reduction of revenues due to facilities that became dysfunctional due to damage. Applies for example to private pharmacies that became dysfunctional due to damage |   | Pre-disaster monthly income  |          |
|   |  |   | Post-disaster monthly income   |          |
|   |  |   | Difference   |          |
|   |  | Average cost of reduced income per month, US\$/month  |  |          |
|   | Loss of revenue  |   |  |          |
| Reduced revenues in case of temporary waiving of co-payments, or reduced ability to pay health insurance premiums |  | Check with social security insurance how this is considered. Include increased costs when extending period of coverage after loss of employment, e.g., for longer term trauma, or rehab care. |  |          |



|   | Damage, million US\$   |   | Baseline  |
|---|--|---|---|
|   |  | Assumptions for cost estimates  |   |
| <b>Governance</b>   | Costs for additional coordination and disaster management needs                                      | Average costs per admin unit in affected areas of staff and other resources required to manage the response and recovery process, including community participation. Will decrease over time. |   |
|   |  | Costs for disaster response and recovery management at national level, \$, per month. Will decrease over time.  |   |
|   |  | Additional investments in HIMS, facility functionality monitoring, per district. Will remain similar per month till the end of the recovery period.   |   |
| <b>Risks</b>  | Higher expenditures to mitigate disaster related risks to health                                     | Duration of period with increased risks for outbreaks. Will decrease over time.   |   |
|   |  | Cost of laboratory/surveillance/early warning systems to detect and mitigate outbreak risks   |   |
|   |  | Cost of risk communication/RCCE and health promotion/IEC campaigns, support to health seeking, etc., million US\$ per month. Will decrease over time  |   |
|   |  | Costs for monitoring water quality, and implementing water, sanitation, and hygiene system (WASH) in collective shelters  |   |
|   |  | Cost of prevention campaigns (e.g., vaccination), million US\$ per campaign x number of campaigns   |   |
| <b>Other relevant estimates for reconstruction and BBB health system resilience needs</b> | Cost of low or no interest rate loans for reconstruction of private health facilities and pharmacies |   |   |
|   |  | Additional costs for disaster resilient reconstruction, modernization, rightsizing, relocation, etc.  | Can vary between 10-40% of the reconstruction costs, depending on pre-disaster building standards |
|   |  | Cost of structure retrofitting (usually a % of full reconstruction costs)   |   |
|   |  | Investments for improved emergency and disaster risk management for health  |   |
|   |  | Estimated summary of reconstruction and recovery needs, including BBB per million US\$  |   |

\* Physical and psychological injuries; cost over and above normal budget assignments, including personnel overtime when necessary

\*\* Cost of transport and the treatment of injured sent to undamaged facilities, whether privately or publicly owned

**Note additional information for macroeconomic impact estimation:**

Percent value of imported component for hospital reconstruction

Percent value of imported component for equipment and materials

|           |              | Recovery needs (short-term), million (US\$), year 1 |         | Recovery needs (medium-term), million (US\$), years 2 and 3 |         | Recovery needs (long-term), million (US\$), years 4 and 5 |         |
|-----------|--------------|---|---------|---|---------|---|---------|
|           |              | Ownership   |         | Ownership   |         | Ownership   |         |
|           |              | Public  | Private | Public  | Private | Public  | Private |
| # damaged | Total damage |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |
|           |              |   |         |   |         |   |         |



## 9.2 Effects of the disaster with cost implications for the recovery of the health sector

|                         |  |
|-------------------------|--|
| <b>Service delivery</b> | <ul style="list-style-type: none"> <li>+ Need for interventions aimed at increasing or maintaining access to health care.               <ul style="list-style-type: none"> <li>+ Temporary increase in treatment capacity in existing health facilities.</li> <li>+ Setting up of temporary additional treatment facilities.</li> <li>+ Referral of patients to other facilities.</li> <li>+ Development and implementation of strategies to deliver essential health services, including adapted models of care such as telemedicine and promoting self-care where appropriate.</li> </ul> </li> <li>+ Need for interventions aimed at addressing the impacts of the disaster on health and health care.               <ul style="list-style-type: none"> <li>+ Treatment of increased health needs related, for instance, to the backlog of patients for whom services were postponed, and those with complications from morbidity due to delayed care-seeking. This includes elective surgeries, treatments, and diagnostic testing, etc.</li> <li>+ Catch-up for suspended programmes such as outreach campaigns and other preventative programmes.</li> <li>+ Development and implementation of strategies to address increased psychosocial and mental health needs such as increases in gender-based violence and violence against children.</li> <li>+ Development and implementation of strategies to address increased health needs resulting from a deterioration of social, economic, and environmental determinants of health such as increases in child malnutrition and nutrition-related morbidity.</li> </ul> </li> </ul> |
| <b>Health workforce</b> | <ul style="list-style-type: none"> <li>+ Rapid redistribution of health workforce capacity, including by re-assignment, task sharing or shifting, and promotion to leadership roles.</li> <li>+ Loss of health workforce through illness, death, burnout, turnover and absenteeism from dealing with personal consequences of the emergency.</li> <li>+ Need for protection mechanisms (physical and psychological) which reflect and address the risks of the disaster and resulting health emergency.</li> </ul>   |
| <b>Financing</b>        | <ul style="list-style-type: none"> <li>+ Need to address increased financial barriers for access to health through for instance a suspension of user fees for the duration of the crisis, which is complemented by demand-side financing for health services, and social cash transfers.</li> <li>+ Need for systems to compensate providers by 'frontloading' for increased costs and reduced revenue.</li> <li>+ Decrease in GDP, with impacts on funding and budgets for health, social care, and development.</li> </ul>   |

|   |  |
|---|--|
| <b>Pharmaceuticals and equipment</b>    | <ul style="list-style-type: none"> <li>+ Need for procurement, distribution, and supply chain management strategies to maintain the availability of essential medications, vaccines, contraceptives, equipment, etc.</li> <li>+ Need for procurement, distribution, and supply chain management strategies that facilitate the acquisition of supplies specific to the disaster.</li> </ul>  |
| <b>Governance</b>                       | <ul style="list-style-type: none"> <li>+ Need for national and sub-national level purpose-designed governance and coordination mechanisms for planning, and monitoring of the response, and maintaining essential health services.</li> </ul>  |
| <b>Information system</b>               | <ul style="list-style-type: none"> <li>+ Need for the establishment and/or deployment of surveillance and rapid response teams.</li> <li>+ Need for the establishment and/or deployment of disaster- and emergency-specific monitoring and evaluation, such as Household International Migration Survey, mapping and monitoring facility functionality, etc.</li> </ul>  |
| <b>Preparedness and risk management</b> | <ul style="list-style-type: none"> <li>+ Need for the design and deployment of risk communication and community engagement strategies which, for instance, work on communicating the need to seek care for normal morbidity when necessary.</li> <li>+ Need for the modelling and forecasting of changes in health statuses and/or the need for essential health services.</li> <li>+ Need for the design and/or implementation of preventive programmes to address health risks, including vaccination campaigns, investments to ensure water quality, vector and rodent control, and other environmental risks.</li> </ul> |

## 9.3 Selected tools, guides, and sources of information

|  |   |
|--|---|
| <b>Health systems recovery and resilience building</b> | <ul style="list-style-type: none"> <li>+ Implementation guide for health systems recovery in emergencies</li> </ul>   |
| <b>Health systems assessment</b>                       | <ul style="list-style-type: none"> <li>+ Guidance on assessing a health care arena under stress</li> <li>+ Harmonised Health Facility Assessment (HHFA)</li> <li>+ Health system assessment approach (HSAA)</li> <li>+ Health Resources and Services Availability Monitoring System (HeRAMS)</li> </ul> |

|  |   |
|--|---|
| <b>Describing the health system and health baseline</b>      | <ul style="list-style-type: none"> <li>+ Country health profiles</li> <li>+ Demographic and health surveys</li> <li>+ District Health Information System</li> <li>+ SCORE for health data</li> <li>+ Public health assessment of refugee and migrant needs</li> <li>+ Multi-cluster initial rapid assessment (MIRA)</li> <li>+ Humanitarian needs overview (HNO)</li> <li>+ SMART surveys</li> <li>+ Strategic toolkit for assessing risks: a comprehensive toolkit for all-hazards health emergency risk assessment</li> </ul> |
| <b>Assessing preparedness and response capacities</b>        | <ul style="list-style-type: none"> <li>+ Early Warning, Alert and Response System (EWARS)</li> <li>+ Integrated Disease Surveillance and Response System (IDSR)</li> <li>+ IHR capacity assessment</li> <li>+ IHR (2005) monitoring and evaluation framework including Joint External Evaluation (JEE)</li> <li>+ Toolkit for assessing health system capacity for crisis management</li> <li>+ Infection prevention and control assessment framework at the facility level</li> </ul>  |
| <b>Multisectoral Needs Assessment</b>                        | <ul style="list-style-type: none"> <li>+ PDNA volume B, health sector</li> <li>+ PDNA methodology: assessing the socio-economic impact and recovery needs of Coronavirus</li> <li>+ ECLAC handbook for disaster assessment</li> <li>+ Household surveys</li> <li>+ Vulnerability criteria/indexes from the Shelter and Non-food Items (SNFI) and camp coordination and camp management (CCCM) clusters</li> </ul>   |
| <b>Whole-of-society approach</b>                             | <ul style="list-style-type: none"> <li>+ Everyone’s business: whole-of-society action to manage health risks and reduce socio-economic impacts of emergencies and disasters. Operational guidance.</li> </ul>   |
| <b>Repository of useful information on disaster recovery</b> | <ul style="list-style-type: none"> <li>+ Global Facility for Disaster Reduction and Recovery’s (GFDRR) recovery hub website (Global Facility for Disaster Reduction and Recovery, 2022)</li> <li>+ International Recovery Platform (IRP) (International Recovery Platform (IRP), 2021)</li> </ul>   |

# 10. References

- European Union, Global Facility for Disaster Reduction and Recovery, and United Nations (2013), **Post-Disaster Needs Assessment Guidelines, Volume A**. New York: United Nations. Available at: <https://www.who.int/publications-detail-redirect/post-disaster-needs-assessment-guidelines> (Accessed: 31 October 2021).
- European Union, Global Facility for Disaster Reduction and Recovery, and United Nations (2014), **Post-Disaster Needs Assessment Guidelines Volume B: Social Sectors - Health**. New York: United Nations. Available at: <https://www.who.int/publications-detail-redirect/post-disaster-needs-assessment-guidelines> (Accessed: 31 October 2021).
- Global Facility for Disaster Reduction and Recovery (2022), **Resilient Recovery | GFDRR**. Available at: <https://www.gfdr.org/en/resilient-recovery> (Accessed: 28 July 2023).
- ICVA (2018), **Learning Stream: Navigating the Nexus, Topic 1: The “nexus” explained**. Geneva: International Council of Voluntary Agencies. Available at: <https://reliefweb.int/report/world/learning-stream-navigating-nexus-topic-1-nexus-explained> (Accessed: 28 July 2023).
- Inter-Agency Standing Committee and UN Working Group on Transitions (2016), **Background paper on Humanitarian-Development-Peace Nexus**. New York: United Nations.
- International Recovery Platform (IRP) (2021), **International Recovery Platform | IRP**. Available at: <http://recovery.preventionweb.net/international-recovery-platform> (Accessed: 28 July 2023).
- United Nations General Assembly (2017), **Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction**. New York: United Nations. Available at: [https://www.preventionweb.net/files/resolutions/N1702972\\_en.pdf](https://www.preventionweb.net/files/resolutions/N1702972_en.pdf) (Accessed: 28 July 2023).
- United Nations, World Bank, and European Union (2017), **Joint Recovery and Peacebuilding Assessments (RPBAs). A Practical Note to Assessment and Planning**. Washington D.C. Available at: <https://www.recoveryandpeacebuilding.org/content/dam/rpba/documents/docs/PracticalNote.pdf?download> (Accessed: 28 July 2023).
- WHO EMRO (2020), **Implementation guide for health systems recovery in emergencies: Transforming challenges into opportunities**. Cairo: World Health Organization. Regional Office for the Eastern Mediterranean. Available at: <https://apps.who.int/iris/handle/10665/336472> (Accessed: 31 October 2021).
- WHO EMRO (2023), **IHR core capacities, World Health Organization - Regional Office for the Eastern Mediterranean**. Available at: <http://www.emro.who.int/international-health-regulations/about/ihr-core-capacities.html> (Accessed: 28 July 2023).
- World Health Organization (2016), **International Health Regulations (2005)**. 3rd ed. Paris: WHO Press. Available at: <https://www.who.int/publications-detail-redirect/9789241580496> (Accessed: 28 July 2023).
- World Health Organization et al. (2017), **Disaster Recovery Guidance Series: Health Sector Recovery**. New York.
- World Health Organization (2019), **Health Emergency and Disaster Risk Management Framework**. Geneva: World Health Organization.
- World Health Organization (2023a), **Health security**. Available at: <https://www.who.int/health-topics/health-security> (Accessed: 28 July 2023).
- World Health Organization (2023b), **Making hospitals safe in emergencies**. Available at: <https://www.who.int/activities/making-health-facilities-safe-in-emergencies-and-disasters> (Accessed: 28 July 2023).
- World Health Organization (2023c), **Universal health coverage (UHC)**. Available at: [https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-\(uhc\)](https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc)) (Accessed: 28 July 2023).



For more information, please contact:  
United Nations Development Programme  
One United Nations Plaza  
New York, NY 10017  
Email: [info@undp.org](mailto:info@undp.org)

[www.undp.org](http://www.undp.org)