
submission by the

WORLD HEALTH ORGANIZATION
Contents

I. Highlights .................................................................................................................................................. 4
   a. Overview ........................................................................................................................................ 4
   b. Purpose / objective ......................................................................................................................... 4
   c. WHO Health Emergencies Background ...................................................................................... 5
   d. Actions taken by WHO .................................................................................................................. 6
   e. Challenges ..................................................................................................................................... 7
      i. Risk environment ..................................................................................................................... 7
      ii. Technical issues ...................................................................................................................... 7
      iii. Resources ............................................................................................................................. 8
   f. Opportunities .................................................................................................................................. 8
      i. WHO Programme ..................................................................................................................... 8
      ii. Technical issues ...................................................................................................................... 9
      iii. Resources ............................................................................................................................. 9
   g. Recommendations .......................................................................................................................... 10
      i. SF Priority 1: Understanding risk ............................................................................................... 10
      ii. SF Priority 2: Strengthening disaster risk governance to manage disaster risk ..................... 10
      iii. SF Priority 3: Investing in DRR for resilience .......................................................................... 11
      iv. SF Priority 4: Enhancing disaster preparedness for effective response, and to «Build Back Better» in recovery, rehabilitation, and reconstruction .................................................................. 12
II. MTR SF methodology and process ......................................................................................................... 13
III. Retrospective review ............................................................................................................................ 13
   a. Governance in WHO .................................................................................................................... 13
   b. Equity and inclusion ....................................................................................................................... 15
   c. Progress towards the outcome, goal, applying and upholding the Sendai Framework Principles 17
   d. Progress in Risk Assessment, Information and Understanding .................................................... 19
   e. Progress in Risk Governance and Management ........................................................................... 19
   f. Progress in Investment in Risk Reduction and Resilience ............................................................... 21
   g. Progress in Disaster Preparedness, Response and ‘Build Back Better’ ........................................ 24
      i. Early warning: .......................................................................................................................... 25
      ii. Recovery .................................................................................................................................. 25
      iii. Collaboration, Partnership and Cooperation .......................................................................... 27
   h. Progress in achieving the Targets of the Sendai Framework ......................................................... 29
IV. Contextual shifts, new and emerging issues, and challenges ............................................................... 30
a. Retrospective 2015 – 2022 .......................................................... 30
b. WHO programme ................................................................. 31
c. Climate .................................................................................. 31
V. Prospective review and recommendations ........................................ 33
   a. Recommendations for realising the Outcome and Goal of the Sendai Framework .......... 33
      i. Risk Assessment, Information and Understanding ........................................... 33
      ii. Risk Governance and Management .............................................................. 34
      iii. Investment in Risk Reduction and Resilience .................................................. 35
      iv. Sendai Framework Priority 4: Enhancing disaster preparedness for effective response, and to ‘Build Back Better’ in recovery, rehabilitation and reconstruction .............................................. 36
      v. Collaboration, Partnership and Cooperation .................................................... 36
VI. Appendices ............................................................................ 36
    Appendix A: Progress in Risk Assessment, Information and Understanding .................... 37
    Appendix B: WHO Progress in Risk Governance and Management ............................... 50
    Appendix C: Progress in Investment in Risk Reduction and Resilience ............................. 59
    Appendix D: Progress in Disaster Preparedness, Response and ‘Build Back Better’ ............... 66
    Appendix E: Collaborative Partnerships – UN Agencies ................................................ 74
    Appendix F: Collaborative Partnerships – UN-WHO .................................................... 75
    Appendix G: Collaborative Partnerships – WHO-Other Relevant Stakeholders ..................... 76
I. Highlights

a. Overview

The MTR SF marks the midpoint in the implementation of the Sendai Framework, the 2030 Agenda, the Paris Agreement and the Addis Ababa Action Agenda. It is also an important milestone for other UN frameworks.\(^1\) The WHO MTR of the implementation of the Sendai Framework reflects on many achievements and challenges, including emerging issues considering the COVID-19 pandemic, that are uniquely relevant to health and the aforementioned frameworks that align in support of the Universal Health Coverage and the Sustainable Development Goals (SDG).

The MTR SF has retrospective and prospective elements and works to take stock, identify emerging issues, uncover context shifts, and build coherence with other frameworks, to better address the systemic nature of risk and to realise regenerative sustainable development.\(^2\) The WHO MTR of the implementation of the Sendai Framework details the global, regional, and country activities in support of the Sendai goals, noting the challenges associated with the risk environment, technical issues and available resources, e.g. funding, human resources and the many challenges the health workforce faces. Opportunities are then discussed in the context of the WHO Programme, technical issues and available resources. Recommendations are provided for achieving the four Sendai Framework Priorities. This report follows the UNDRR-recommended format for reporting the MTR SF and includes its methodology and process, a retrospective review, contextual shifts reflecting new and emerging challenges, and a prospective review and recommendations and primarily draws upon information from WHO documents including policies, guidance and reports from the WHO General Program of Work and the UN Plan of Action for DRR. It has received further inputs from WHO offices following review and consultation.

b. Purpose / objective

The MTR SF will conclude in 2023 at a high-level meeting of the General Assembly (GA). The review and political declaration adopted at this meeting can inform inter alia the SDGs Summit, the UN Secretary General’s Summit for the Future and the recommendations for Our Common Agenda, and the 28th session of the Conference of the Parties (COP28).\(^3\) The WHO MTR SF provides this update in support of the 2023 high-level meeting of the GA and the subsequent recommendations and initiatives that result.

c. WHO Health Emergencies Background

When Member States agreed to feature health at the centre of the Sendai Framework for DRR, it brought health to be represented in an unprecedented way within an international multisectoral agreement. Health became explicitly included in the Expected Outcome, the Goal and throughout the Priority Actions, including 38 references (including the International Health Regulations (IHR) 2005) that linked health directly and indirectly linked to all targets and many indicators. This was further complemented by the specific reference to the risk management approach in the Health Goal of the Sustainable Development Goals (SDG) Target 3.d: “Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.” The Sendai Framework is a clear expression of Member States to integrate public health and disaster risk management.

Many critical links between health and disaster risk management exist, for example:

- **Health effects of disasters are the definitive outcome of disaster impact because it represents the effectiveness of the disaster risk management capabilities that are in place given a particular event.** These are measured by significant reductions in the number of “deaths” (Target A) and “people affected” (including the injured and ill, Target B), along with the many other direct and indirect consequences for people’s health, such as mental health and exacerbation of non-communicable diseases. Furthermore, health is impacted by the damage to health care facilities (Target D, Indicator D2) and disruption to health services (Target D, Indicator D7).

- **Health and well-being are shared outcomes to which all sectors, including those beyond the health sector, contribute their actions, resources and capacities.** This supports the value within joined-up action within and across sectors to address health risk and impacts, in particular the co-dependencies between health and other sectors.

- **The health, nutrition and immunization status of people is a source of vulnerability and resilience for people at risk of emergencies and disasters.**

- **Health is a human right;** a rights-based approach to disaster risk management must emphasize removing barriers and improving health equity and equality, enable ownership and participation of communities, include populations who have highest levels of vulnerability.

- **The health system in general, including the health sector specifically, are critical to reducing health risks of emergencies and disasters.** Equitable access to health services and public health measures are critical factors to managing risks. Therefore, strengthening health systems and whole-of-society capacities for health Emergency and Disaster Risk Management are vital for reducing risks and impacts of all types of emergencies and disasters.

- **Peoples’ health has major impacts on risks in other sectors.** These include the impacts on the physical, mental health and overall wellbeing of the workforce and their livelihoods. Examples of non-health sector impacts include access to education, child development, economic stability, etc.
Biological hazards are also a major source of risk, as evidenced by pandemics, epidemics and disease outbreaks that affect health and societies worldwide. There were 60 human health hazards identified in the Hazard Information Profiles as part of the UNDRR/ISC Hazard Definition and Classification Review.

d. Actions taken by WHO

The Sendai Framework has played an increasingly prominent role in the work of WHO, in support of Member States and relevant stakeholders. Across the organisation, WHO supports the management of risk whether it be by strengthening health systems, promoting health or protecting people from emergencies.

WHO country, regional and HQ offices provide technical assistance to countries towards the implementation of the actions that are identified in the Sendai Framework, including the development of health sector strategies related to Target E. WHO has dedicated emergency staff and focal points in WHO country offices to facilitate technical assistance to countries, including for health emergency and disaster risk management in the broadest sense.

WHO country support includes the development and roll-out of WHO and UN interagency policies, guidance, training and technical assistance for capacity development to countries for:

- Conducting risk assessments of priority risks to health, including national strategic emergency risk assessments (e.g. using the Strategic Toolkit for Assessing Risk (STAR) tool) and event risk assessments. Country offices are increasingly placing their DRM planning emphasis on sub-national risk assessment and on vulnerability analysis.
- Conducting capacity assessments for countries across multiple health emergency and disaster risk management capacities in the health sector and for specific programmes, e.g. surveillance systems, laboratory networks, emergency medical services, climate change vulnerability assessments, IHR, Joint External Evaluations (JEE), Capacity for Disaster Reduction Initiative (CADRI) supported assessments including health.
- Developing national plans for health emergency and disaster risk management, for National Action Plans for Health Security (NAPHS) and specific programmes related to health emergency and disaster risk management (e.g. climate change adaptation, all types of emergencies, road safety, immunization plans).
  - WHO works with countries through the CADRI Partnership to assess capacities and develop national plans for disaster risk reduction (DRR).
  - WHO increased collaboration at the country level with UNDRR and the UN System to strengthen health and integrate biological hazards, disease outbreaks, epidemics and pandemics into national strategies for DRR.
- Strengthening coordination mechanisms in the health sector to be responsible for emergency and disaster risk management (e.g. health emergency management coordination units, IHR, health emergency operations centres).
• Monitoring and reporting on country progress that includes the Sendai Framework monitor, State Party Annual Reporting (SPAR) for the IHR, JEE, global and regional reporting on country capacities for health emergency and disaster risk management.

e. Challenges

i. Risk environment

The COVID-19 pandemic and other recent emergencies have demonstrated the vulnerability of people, health systems and society at large to the risks of wide range emergencies and disasters. The growing risks of emergencies faced by countries and communities are increasing the burden on public health that increase the demand for technical assistance from WHO at all levels. Vulnerability is also affected by unplanned urbanization, state fragility, climate change, insecurity, continuing disadvantage for the poor, among other risk factors. The countries with the highest levels of vulnerability are often those in fragile, conflict affected and vulnerable (FCV) settings, making the development of capacities and operational activities challenging to implement. Operational constraints in countries exist where there are limited national and local capacities and access due to insecurity.

The number of countries that continue to be affected by conflict or instability is significant. These settings are exacerbated by human-induced hazards, the high number of displaced populations and COVID-19. Therefore, health, environment, sustainable development and peace building are at the forefront of WHO’s technical support to countries in general and to FCV countries in particular.

Concurrent emergencies further complicate the risk management of all types of emergencies, in particular epidemics and pandemics, and conflict contexts or humanitarian situations. WHO developed various guidelines such as the "Preparedness for cyclones, tropical storms, tornadoes, floods and earthquakes during the COVID-19 pandemic: health advisory" (WHO, 2020). This tool is intended to provide guidance to countries on adapting current preparedness activities e.g. response plans and procedures for cyclones, tropical storms, tornadoes, floods, earthquakes with the potential for outbreaks of other diseases to their COVID-19 strategic preparedness and response plans (SPRPs). It also provides advice on how to test the required capacities through simulation to ensure the strategic objectives of the pandemic response are achieved. WHO has also integrated DRR into humanitarian response and early recovery through the health emergency and disaster risk management (EDRM-H) framework that describes the principles and approaches that guide policy and practice through a risk-based approach across the spectrum of prevention, preparedness, readiness, response and recovery for all hazards.

ii. Technical issues

Previously, the approach to emergencies has emphasized emergency preparedness and response rather than a comprehensive risk management approach that also includes prevention and recovery. However, the General Programme of Work (GPW 13) (2019-2023) has ensured that all technical
programmes and health systems are involved in WHO’s work on emergencies. Further, effective coordination between government agencies and stakeholders, including all levels of health, requires attention to ensure that health risks, the needs of communities, and the health and other sectors can effectively address the multisectoral context.

Vertical programmes have developed parallel capacities and systems for specific diseases or hazards in countries, but reflected past WHO approaches. While this is evolving to a more aligned capacity-development approach, a need exists for expansion of guidance, learning packages and support for technical assistance to countries that address the all-hazards and comprehensive approach to managing risk. Further, this new approach includes the inclusion of emergency-related risks and capacities in all relevant global and WHO health policies, programmes, technical guidance and technical assistance. As a Member State organization, the WHO Secretariat’s primary point of contact is with Ministry of Health. WHO is broadening its engagement with a wider range of Ministries and sectors to better assess and develop capacities at local and national level, in support of Ministries of Health and their partners.

iii. Resources

Sources of funding from donors tend to support action for building capacity of health security, infectious diseases and international response. Increasingly, however, resources are being directed towards Health EDRM. There are limited sources of funding available for addressing natural hazards and chemical and radiological hazards. Sustainable funding for all-hazards EDRM, including emergency preparedness, remains a challenge for the implementation activities at all levels, particularly in country offices. Human resource capacities in the health sector (including in WHO) are not sufficient to meet the needs of communities and countries for effective Health EDRM. The turnover of staff and the impact of COVID-19 on the health workforce also affects the sustainability and continuity of activities. Increasing the number/critical mass of well-trained staff and teams to fulfil the range of emergency risk management function are required at the WHO Country Office and Regional Office levels to the local communities. Capable health workforce with managerial competencies and skills are needed.

f. Opportunities

i. WHO Programme

WHO’s governing bodies, together with the Director General and senior leadership, have made WHO’s work on protecting people's health from emergencies a key priority of the organization in the 2019-2023 GPW 13. Herein, the management of emergencies (not limited to COVID-19), a greater focus on climate change, and the integration of health systems and health security where Health EDRM provides a common foundation. This resulted in the opportunity to build synergies with the two priority areas that focus on increasing access to quality health services through Universal Health Coverage (UHC) and promoting health through the implementation of the health aspects of the SDG. The focus on ensuring WHO’s work has country impact, especially those at
high risk of emergencies, will require concerted efforts across the organization to building the resilience of communities and countries, combined with the development of country and WHO corporate capacities to reduce risk and manage the health consequences of emergencies and disasters. Actions are under way to strengthen the integration of the work of the WHO Emergencies Programme (WHE) with health systems and other technical programmes, including in the context of fragile, conflict affected and vulnerable settings. WHO is building on the progress of implementation of the WHO Health Emergencies Programme across the three levels of the organization and through the implementation of cross-departmental task teams. All regions are increasing their support for WHO’s work on emergencies and have strategies for disaster risk management. The emphasis on emergencies, building resilience, and increasing recovery capabilities of health and health systems from COVID-19 and other emergencies, can be leveraged to address broader aspects of HEDRM. PAHO’s Plan of Action for Disaster Risk Reduction 2016-2021 has exemplified alignment of the health sector policy with the Sendai Framework and shown how Member States are moving towards DRR in a practical and operational way.

ii. Technical issues

As part of the UN System, WHO policies and technical guidance are increasing emphasis on building coherence across the SDGs, Sendai Framework, Paris Agreement on Climate Change, the Grand Bargain and other relevant global and regional framework. Indicators for SDGs and Sendai Framework are included in the WHO Global Reference List of 100 Core Health Indicators (plus health-related SDGs), and the WHO GPW 13 (2019-2023). WHO continues its collaboration with UNDRR on strengthening the capacities of Member State reporting of the health-related Sendai Framework Targets including for COVID-19.

The tools for the IHR for annual reporting, JEE and national action plans for health security have included a greater emphasis on all-hazards approaches and reporting on capacities at local and subnational levels across all sectors. National action planning for health security also aims to identify priority activities for capacity development across a range of technical areas, and to ensure domestic and international resources can support implementation at country level. The publication of the Health EDRM Framework has enabled countries and WHO to bridge disaster risk management, epidemic preparedness and response, humanitarian action and climate change adaptation, and has formed the basis of further technical guidance and learning material for strengthening country capacities and systems for all types of emergencies, including risk assessment and national emergency response planning.

iii. Resources

WHO is placing more staff and financial resources in WHO’s country offices, especially in high vulnerability countries, to implement WHO’s emergencies programmes. Staff development and the management of expert networks are among WHE’s priorities. COVID-19 has impacted the implementation of many aspects of the World Health Emergencies (WHE) Programme, in
particular building staff capacity, including for all aspects of health emergency and disaster risk management (Health EDRM).

Recently Member States agreed to increase the core funding for WHO and there are strategies for more consistent and unearmarked funding for the whole of WHO, including WHE. A call for investment cases supporting WHO’s work broadens the number of its technical and funding partners. A greater emphasis is also placed on strengthening technical partnerships and networks, including through the WHO Science Division, Pandemic Influenza Preparedness Framework, Global Outbreak And Response Network (GORAN) and the Emergency Medical Teams Initiative, the Strategic Partnership for Health Security and WHO Thematic Platform for Health Emergency and Disaster Risk Management and its associated research network.

g. Recommendations

These recommendations reflect the key principles of the Sendai and the Health EDRM Frameworks that represent key success factors for implementing disaster risk management in health and across sectors, including incorporating lessons from emergencies and disasters not limited to COVID-19. Practical recommendations to reduce health risks and consequences and improve health outcomes for all people across the world facing the risks of emergencies and disasters include

i. SF Priority 1: Understanding risk

1. Apply a whole-of-society approach when conducting strategic emergency and disaster risk assessments across sectors and in health (e.g. through STAR).
2. Integrate multi-hazard early warning systems and involve the health sector to:
   a. Include disease outbreaks and integration of disease early warning systems (e.g. Early Warning, Alert and Response System (EWARS);
   b. Assess and monitor risk through a public health lens;
   c. Engage the health sector in the formulation and communication of health specific early warnings and response concepts; and
   d. Communicate early warnings to the health sector in order to prepare, get ready and take the necessary action to implement.
3. Emphasize a risk-informed, multi-hazard approach to maximize the use of limited resources taking a coherent approach incorporating CCA alongside DRR.
4. Identify and address the systemic nature of risk, including the root causes of vulnerabilities, the social and economic inequalities embedded in disaster risk and resilience, populations with limited access to health services.

ii. SF Priority 2: Strengthening disaster risk governance to manage disaster risk

5. Reinforce the coordination mechanisms, partnerships, relationships at all levels between health, disaster management organisations and all sectors and stakeholders.
- the voice of public health must be heard from people at risk, health sector and other sectors, and leadership;
- the health sector needs to engage effectively with other sectors; and
- all other sectors need to include health sector in their committees, forums, design and delivery of activities.

6. Ensure that all disaster risk management strategies, plans and actions address the health risks and consequences of emergencies and disasters by applying an all-hazards and risk management approach.
   a. Focus on improving people’s health and wellbeing as a common outcome for whole-of-society strategies and action;
   b. All sectors should demonstrate their role in reducing the health risks and consequences of all types of emergencies and disasters; and
   c. Involve the health sector and stakeholders in all aspects of DRR including policy and planning, risk assessment, early warning systems, learning, critical infrastructure protection and strengthening of health systems.

7. Ensure that biological hazards including epidemics and pandemics are integrated in global, national and local strategies for DRR.
   a. A whole-of-society approach is required in conducting strategic emergency and disaster risk assessments across sectors and in health (e.g. through STAR);
   b. Capacities for reducing risks of natural, technological and other hazards can be applied to epidemics and pandemics;
   c. Capacities for reducing risks of biological hazards can be applied to all other sources of risk; and
   d. The integration of biological hazards will strengthen collaboration, using a whole-of-society approach, will help countries and communities prepare for disease outbreaks.

8. Strengthen system-wide coherence in support of the Sendai Framework and other agreements through a risk-informed and integrated approach with the Health EDRM Framework, IHR (2005), the Paris Agreement and the SDGs. These existing global policy frameworks and initiatives provide a broad range of entry points for mainstreaming DRR to national level implementation of UN system policies, guidelines and inter-agency initiatives that integrate and demonstrate linkages between the Sendai Framework global targets and priorities of action with other international frameworks should be encouraged.

9. Ensure integration of the assets and needs of sub-populations including poverty, gender, people with disabilities and others in DRR strategies making sure that no one is left behind.

iii. SF Priority 3: Investing in DRR for resilience

The Sendai Framework related to health is timeless. These recommendations are based on the wording of the Sendai Framework in SF Priority 3 and are complemented by other recommendations in other priorities.
10. Continue the implementation of Health EDRM aligned with the Sendai Framework, e.g.  
   a. Strengthen investments in disaster-resilient, prepared and decarbonized hospitals 
      and other health care facilities that are prioritized for their status of critical 
      infrastructure projects and their role service delivery;  
   b. Strengthen resilient national health systems, including by integrating Health EDRM 
      into primary, secondary and tertiary health care, especially at the local level and 
      applying a risk-based whole-of-society approach;  
   c. Develop the capacity of the health workforce for Health EDRM at all levels, 
      emphasizing strengthening leadership and management competencies;  
   d. Strengthen the role of the local health workforce in understanding disaster risk and 
      how to apply and implement Health EDRM and DRR approaches in health work, and 
   e. Promote and enhance education in Health EDRM in schools of medicine, public 
      health and nursing.  
11. Strengthen the design and implementation of inclusive policies and social safety-net 
    mechanisms, including through community engagement and integration with livelihood- 
    enhancement programmes, and Health EDRM efforts on local levels.  
12. Strengthen the integration of risk management approaches to services, e.g. essential public 
    health function and access to basic health-care services, including maternal, newborn, child 
    and adolescent health, sexual and reproductive health, mental health and psychosocial 
    support, trauma and emergency services, non-communicable diseases, food security and 
    nutrition, care for older persons.  
13. Ensure people with physical or mental health conditions (e.g. non-communicable or 
    chronic diseases) or living in vulnerable settings, are included in the design of policies and 
    plans to manage their risks before, during and after disasters. This must include having 
    access to life-saving services.  
14. Enhance cooperation between health authorities, national disaster management 
    organizations and other relevant stakeholders to strengthen country capacity for Health 
    EDRM and, the implementation of the IHR and the building of resilient health systems.  

iv. SF Priority 4: Enhancing disaster preparedness for effective response, and to «Build 
    Back Better» in recovery, rehabilitation, and reconstruction  
15. Use the good practices, lessons, innovations and evidence gained from COVID-19 to 
    reinforce and strengthen capacities and systems to manage the risks of all types of 
    emergencies and disasters, including biological hazards.  
   a. Analyse the experience and identify key lessons of partnerships, actions and 
      capacities that need to be continued, reinforced and strengthened. If these 
      experiences are not integrated into strategies, they are at risk of being repeated and 
   b. Ensure that recovery plans and actions from COVID-19, other emergencies and 
      disasters build on strengths and addresses gaps and weaknesses to manage current 
      (continuing) and future (emerging risks).
16. Operationalize Health EDRM in humanitarian action and strengthen humanitarian/development collaboration around DRR with a focus on concurrent risks and events

II. MTR SF methodology and process

As stated previously, this report primarily draws upon information from WHO documents including policies, guidance and reports from the WHO General Program of Work and the UN Plan of Action for DRR. It has received further inputs from WHO offices following review and consultation.

III. Retrospective review

a. Governance in WHO

WHO provides a range of technical assistance to countries aimed at managing risks of emergencies and building resilience in countries through Biennial Work Plans and a 5-year General Programme of Work across all levels of the organization. They cover the full spectrum of DRM including strengthening country capacities to carry out prevention, preparedness, readiness surveillance, response, and early recovery for emergencies and disasters. This applies to a range of diseases with the potential to cause outbreaks, epidemics, or pandemics, and in relation to food safety-related events, zoonoses, antimicrobial resistance (AMR), technological hazards, and including chemical and radiological, natural hazards, conflicts, among others. WHO prioritizes the human security approach to building coherent intersectoral policies that protect and empower people to increase community resilience against critical and pervasive threats. When national capacities are overwhelmed, WHO leads and coordinate the international health response to contain disasters, including outbreaks, and provides effective relief and recovery to affected populations.

WHO’s GPW 13 reflects WHO’s commitment to the implementation of SDGs. In the first instance, WHO advocated for the SDGs to have a Goal devoted to health (Goal 3) and to include 3d which is to Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.

Through the DG leadership of WHO, WHO gives priority to achieving UHC, strengthening health security, and achieving the health-related SDGs. The GPW 13 is structured around three interconnected strategic priorities to ensure healthy lives and well-being for all at all ages, i.e. achieving UHC, addressing health emergencies, and promoting healthier populations. WHO aims to make the world better prepared for health emergencies by measurably increasing the resilience of health systems for a population of 1 billion people.

WHO is addressing the integration of Health EDRM with the strengthening of health systems for UHC, health security and resilience. As part of the GPW 13 implementation, joint working teams coordinate cross-Programme technical support and monitoring for UHC across the three levels of the Organization that also take account of health security, Health EDRM, the IHR (2005).
Examples include with respect to the Hospitals, Primary Health Care Frameworks and the Health Workforce and with respective to their settings, e.g. FCV contexts, humanitarian settings, population displacement.

Further, and aiming to reduce health risks and impacts of compound emergencies in humanitarian settings, WHO supported the preparedness of health facilities and hospitals of world’s largest refugee camp in Cox’s Bazar by developing health facilities safety and resilience assessment tool. The tool was piloted and is being used to assess 8 selective hospitals and health centers inside the refugee camp and the host community in Cox’s Bazar.

Most of the SDG 3 health targets are relevant to Health EDRM and there are other goals and targets that are also important for managing risks of emergencies. In addition to Goal 3, WHO is supporting countries to implement the following goals and targets (with relevant indicators) pertaining to health emergency and disaster risk management:

1.5 By 2030, build the resilience of the poor and people in vulnerable situations by reducing their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

2.1 By 2030, end hunger and ensure access to health by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.

2.2 By 2030, end all forms of malnutrition, including by 2025 achieving the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons.

6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

6.b Support and strengthen the participation of local communities in improving water and sanitation management.

11.1 By 2030, significantly reduce the number of deaths and the number of people affected. This includes substantially decreasing the direct economic losses relative to the global
gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

All of Goal 13 pertaining to climate action, specifically 13.1 to strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

16.1 Significantly reduce all forms of violence and related death rates everywhere.

b. Equity and inclusion

WHO and health partners are strongly committed to the principles of inclusion and accountability to affected population in all phases of the health emergency and disaster risk management. This includes risk assessments, prevention, preparedness, needs assessment and analysis, strategic response planning, response implementation, monitoring, evaluation and learning of all aspects. The 13th GPW includes an outcome requiring “Strengthened health systems towards universal health coverage without financial hardship including equity of access based on gender, age, income, and disability.” WHO’s programmes for building countries’ capacities for prevention, preparedness, and response are intended to benefit all populations without discrimination.

In the Sendai Framework negotiations, WHO and health sector representatives advocated for strong emphasis on reducing vulnerabilities associated with the social determinants of disaster risks and a stronger role for all stakeholders and groups, including women, children, persons with disabilities, older persons, indigenous peoples and migrants in disaster risk management.

Central to WHO’s programmes is recognising, supporting, and measuring the needs and capacities of people, including sub-populations, who are often considered to be at higher risk of disasters. These are evident in WHO programs to reduce inequity and improve access to health services and measures in routine and in emergency situations.

WHOs GPW 13 includes requirements to disaggregate data. WHO will “Promote strategic disaggregation of data to better inform programmes along gender, equity, disability, and age group categories in surveys and routine data…” WHO’s work on data disaggregation aligns with the SDGs.

WHO is pursuing the achievement a systematic tracking of disaggregated disaster-related data for vulnerable groups within the umbrella of its overarching policy related to cross cutting themes (CCTs) of gender, equity, ethnicity, and human rights.

Examples include:
Generally, for all emergencies that present a potential risk or impact on health or gender, disaggregated data was collected and analysed during public health events of international concern that occurred during the biennium, such as COVID-19, ZIKA, Yellow Fever, Diphtheria outbreaks. Such strategies also informed the design of strategies at country levels (such as: social mobilization, vaccination).

- Event-risk assessments include disaggregation of surveillance data by sex and age, tailored infection prevention and control documents, and inclusion of gender aspects in risk communication strategies.
- WHO Global Health Observatory collects and reports data by gender and age. Data on reproductive, maternal, newborn and child health are disaggregated by equity stratifiers, including sex (wherever relevant), place of residence (urban, rural), wealth quintiles, educational level and subnational regions. Disaggregated data are routinely presented in WHO reports, including the World Health Statistics, WHO’s annual flagship reports that present the most recent health statistics for the WHO Member States which has featured a special section on health equity for more than a decade.
- WHO Country Cooperation Strategy documents also requires data disaggregation of health statistics by sex and other equity stratifiers.
- PAHO has been a leader in working with indigenous populations. For example, *Recommendations for engaging indigenous peoples in disaster risk reduction* was published, as well as a guide for decision-making in DRM in indigenous communities. Training programmes on Indigenous populations and disaster have been implemented in countries such as Mexico.
- PAHO’s Plan of Action urges Member States to strengthen response capacity and early recovery from disasters in the health sector by dictating that plans should be participatory, inclusive and effective. PAHO developed a methodology named INGRID-H (Hospital Disaster Inclusive Risk Management) in response to the Regional Plan of Action for Disaster Risk Reduction 2016-2021 that was approved by Member States (and aligned to Sendai Framework), and which incorporates Disability as a cross cutting theme. INGRID-H is an “action(plan) - evaluation (Index)” methodology to improve the level of preparedness for hospital response to emergency situations and disasters caused by any type of hazard with emphasis - but not limited - on persons with disabilities. INGRID-H has been implemented in many countries of the PAHO.
- Ethics, as a disaggregated data, has been included in the Health EDRM Fact Sheets and the training manual *Ethics in epidemics, emergencies and disaster: research, surveillance and patient care*. The Emergency Risk Management (ERM) department collaborated with the WHO Global Health Ethics Unit (GHE) and the Department of Pandemic and Epidemic Diseases (PED) on the development of the manual, which is based on the premise that “the principles and values embodied in international and national ethics guidelines,” as well as human rights, sex disaggregated reporting on the impacts of the COVID-19 pandemic on health, and other sectors in reporting for Sendai Framework Monitoring in 2021.
- WHO has also contributed to the development of the Sendai Framework Gender Action Plan.
WHO gender experts managed the WHO Health emergencies programme to increase gender representation.

WHO developed guidance to support the integration of gender analysis in the development, implementation and monitoring of new frameworks, tools and guidelines for Health EDRM emergency risk management.

Gender equality has been addressed in the COVID-19 Strategic Preparedness and Response Plan to support the COVID-19 risk management actions in the countries. WHO continued to monitor the country level actions by using the gender responsive indicators, e.g. vaccination. WHO continued to support countries and partners advocating for and taking action on Gender Based Violence (GBV), particularly through its newly established department on Prevention of Sexual Abuse and Exploitation (PSAE) of Health Workers.

WHO’s GPW 13 includes GBV as part of its contribution to the SDGs on gender equality and women’s empowerment. WHO continues to monitor all public health programmes implementation through the gender score cards including GBV, PSAE, etc.

WHO continued to support and coordinate the mainstreaming of gender, equity and human rights approaches in health at all levels of WHO in coordination with the six Regional Offices.

WHO conducted gender-analysis of programme indicators, in consultation with key external partners, to identify challenges and propose solutions to facilitate gender mainstreaming across WHE and WHO offices, departments and programs.

WHO assessed existing training opportunities and capacity building gaps in relation to gender mainstreaming among WHO Health Emergencies staff and developed training for programme/technical staff on gender mainstreaming in health emergencies.

WHO identified, compiled and disseminated knowledge sharing products, including good practices by MS and partners, in the collection, use and dissemination of SADD and gender analysis through the WHO Health EDRM Research Network.

WHO revised Health Emergencies programme frameworks, tools and guidance to mainstream gender and ensure they provide gender responsive guidance to MS and partners.

c. Progress towards the outcome, goal, applying and upholding the Sendai Framework Principles

As stated above, health is explicitly mentioned in the Sendai Framework Expected Outcome

*The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries;*

and Sendai Framework Goal:

*Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational,*
environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience.

Several references to health in the Sendai Framework have enabled WHO and the health sector to achieve progress initiate a pathway to achieving better outcomes for health and wellbeing of people globally by:

a) Including the SDG 3d target: *Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.*
b) Strengthening advocacy for health in the multisectoral disaster risk management strategies.
c) Demonstrating the value of disaster risk management principles, approaches and actions to public health within and across societies at all levels.
d) Building collaboration between public health and other sectors at all levels, in particular, the national disaster management organizations.
e) Strengthening the collaboration between WHO, the UN system and partners through the UN System Plan of Action on Disaster Risk Management for Resilience, joint publications, webinars and training.
f) Developing guidance and providing technical country assistance to strengthen the capacities of the health systems to reduce risk and impacts of emergencies and disasters, including the health risks associated with climate change.
g) Linking Sendai Framework targets and indicators to the 13th WHO General Programme of Work and other monitoring and evaluation frameworks.

The principles and approaches of the Sendai Framework have been reinforced by WHO in guidance such as the WHO’s Health Emergency and Disaster Risk Management Framework.  

These include:

a) Risk-based approach
b) Comprehensive emergency management
c) All-hazards approach
d) Inclusive, people- and community-centred approach
e) Multisectoral and multidisciplinary collaboration
f) Whole-of-health system-based
g) Ethical considerations

---

4 Health Emergency and Disaster Risk Management Framework: [https://apps.who.int/iris/bitstream/handle/10665/326106/9789241516181-eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/326106/9789241516181-eng.pdf)
Additionally, WHO’s Everyone’s business: whole-of-society action to manage health risks and reduce socio-economic impacts of emergencies and disasters: operational guidance\(^5\) reflects the principles and approaches of the Sendai Framework.

These include:

a) Whole-of-government approach at all levels of society
b) Involvement of all sectors and management of critical interdependencies
c) Inclusive people- and community-centred approach
d) Risk-informed approach to scenario-based planning and action
e) Ethical considerations and basic rights
f) Innovation, learning and continuous improvement

These principles and approaches underpin the WHO approach, interaction and support to Member States and other partners to reduce risks and impacts of emergencies and disasters.

d. Progress in Risk Assessment, Information and Understanding

This section highlights the progress that WHO has taken in relation to Priority Action 1 of the Sendai Framework with respect to risk assessment, the establishment of the WHO Hub for Epidemic and Pandemic Intelligence in Berlin, Sendai Framework reporting, the development of guidance for Health EDRM, learning, and risk communication.

The WHO Hub for Pandemic and Epidemic Intelligence\(^6\) was inaugurated in September 2021. Based in Berlin and embedded in WHO’s Health Emergencies Programme, the Hub will support countries, regional and global actors to address future pandemic and epidemic risks with better access to data, analytical capacities, and tools and insights for decision making. Building on expertise across disciplines, sectors, and regions, the Hub will leverage WHO’s convening power to foster global solutions built on an architecture of global collaboration and trust.

Appendix A: Progress in Risk Assessment, Information and Understanding details key words, and additional associated activities.

e. Progress in Risk Governance and Management

Policies and Programmes related to Health Emergencies, DRM and DRR

WHO and Members’ commitment to Health EDRM is expressed in various international agreements, frameworks, and World Health Assembly (WHA) Regional Committee resolutions related to health emergencies, specific hazards and areas of public health e.g. IHR, mental health, social development, and disaster risk management.


\(^6\) A new understanding of pandemic and epidemic risks: https://pandemichub.who.int/
disability, food safety, non-communicable diseases, environmental health, climate change and health, radiation safety and chemical safety. Resolutions have been passed by every WHO Regional Committee over the past 20 years to reinforce the mandate given to WHO and to strengthen capacities of Member States related to Health EDRM.

The WHO Health Emergencies Programme mission is to help countries, and to coordinate international action, to prevent, prepare for, detect, rapidly respond to, and recover from outbreaks and emergencies.

With respect to DRR, WHO supports a multi-sectoral approach to improving health outcomes for people at risk of emergencies and disasters by building capacities for Health EDRM, implementation of the IHR 2005 and resilient health services to reduce deaths, injuries, illness and disability; damage to hospitals and health infrastructure; and disruption to health care services. It supports countries in building national capacities in all-hazard Health EDRM and in strengthening the resilience of health systems and continuity of people-centred health services – including physical integrity, safety and functionality of health facilities – before, during and after emergencies; and strengthens the resilience of communities and national self-reliance in managing emergency risks and actual emergencies.

For example, to advance progress towards safe and resilient health facilities, a dedicated event at the 7th session of the Global Platform for Disaster Risk Reduction was conducted to share innovations and experiences gained during the COVID-19 response to strengthen the safety, functionality and sustainability of health facilities and discuss the central role of health facilities in managing health risks of emergencies and disasters. Further webinars were conducted including on Fire Safety in Health facilities and a number of countries were supported through trainings and the roll out of different tools related to health facility safety and resilience and hospital response planning.

Several WHO strategic outcomes and outputs that are related to the prevention, preparedness, response and recovery from disasters, including the work within the WHO Health Emergencies Programme and other departments and programmes, take a broad perspective on Health EDRM. Examples include action in strengthening resilient health systems, mental health, vaccination programmes, sexual and reproductive health, rehabilitation, emergency and trauma care, nutrition, etc.

At the corporate level, the GPW impact framework has adopted indicators from the Sendai Framework and will continue to address them in subsequent GPW revisions. WHO Regional Offices have developed governing bodies which have approved resolution, strategies and frameworks related to health emergency and disaster risk management.

Examples include:

- In 2016, the 68th Session of the Regional Committee of WHO for the Americas - 55th Directing Council of the Pan American Health Organization - approved the Plan of Action for Disaster Risk Reduction 2016-2021 (CD55/17, Rev. 1) that recognized the 2030 Agenda for Sustainable Development, the Paris Agreement on climate change, the Sendai
Framework for DRR (2015-2030) and the Agenda for Humanity, in addition to the reform of the response capacity of the WHO during outbreaks and emergencies. PAHO has defined strategic results related to DRR and has included them in the subsequent programmes of work and reporting mechanisms. DRR is explicitly reflected in PAHO’s Strategic Plan 2014-2019 with one Outcome level specifically for DRR entitled “Countries have an all-hazards health emergency and disaster risk reduction program for a disaster resilient health sector” (Outcome 5.6).

- In 2015, the Regional Committee for South East Asia approved the Resolution on Response to Emergencies and Disaster which (SEA/RC68/R2)\(^7\) which reflects emergency risk management as a Regional Flagship Priority Area/priority and makes references to global frameworks, i.e. Sendai. Framework and the IHR, to South East Asia Region Benchmarks as well as ongoing WHO Reform.

- In 2014, prior to the Sendai Framework, the Regional Committee for the Western Pacific adopted the Western Pacific Regional Framework for Disaster Risk Management for Health and is subject to review and revision to reflect cohesion between the frameworks.

Appendix B: WHO Progress in Risk Governance and Management details key words and additional progress in implementing these activities.

f. Progress in Investment in Risk Reduction and Resilience

WHO’s addresses Health EDRM, including DRR, exists across the organization. While WHO Health Emergencies Programme emphasizes the centralized activities, other WHO programmes aim to strengthen health systems as fundamental to building the resilience of communities and countries for managing risk associated with emergencies and disasters.

Prevention

In public health, prevention includes the primary prevention of hazards and the secondary prevention of spread or transmission, vulnerability of reduction and measures to prevent other health effects before, during and after emergencies. This is addressed in the delivery of routine health services with an emphasis on primary health care and in emergency preparedness and response where WHO supports countries to reduce the spread of disease and other health consequences.

WHO activities focused on prevention include:

- Routine and emergency immunization programmes for vaccine-preventable diseases (including for polio, measles, cholera, meningitis),
- Research, development and global regulation of vaccines, drugs and medical devices (e.g. Pandemic Influenza Preparedness Framework),

\(^7\) South East Asia approved the Resolution on Response to Emergencies and Disaster: https://www.who.int/southeastasia?ua=1
• Food safety,
• Water, sanitation and hygiene, including increased access to drinking water,
• Prevention of malnutrition,
• Injury prevention including road safety and drowning,
• Infection prevention and control in health settings,
• Occupational health and safety, and security,
• Safe, secure and sustainable hospitals (including Smart Hospitals), and
• Violence against health care including attacks on health care facilities

WHO is the custodian of the IHR. The WHO IHR Secretariat has a regulatory role with respect to the implementation of the IHR. Strengthening capacities to support IHR implementation is an important avenue for the Organization to address DRR. Support to countries is provided by WHO Country Offices, together with Regional Offices and HQ, and involves a range of activities including:

• Maintaining and building the capacity of the network of National IHR Focal Points and regional WHO IHR Contact Points, including regional meetings.
• Guiding States Parties to facilitate their compliance with IHR (2005).
• Advising on relevant IHR provisions for States Parties through consultation with WHO regional offices and a number of States Parties.
• Reporting the implementation of the IHR annually in coordination with national IHR focal points. Currently as of 31 December 2017, 91 countries States Parties have submitted their completed IHR Monitoring questionnaire.
• Strengthening all-hazard approaches in the revision of to the IHR Joint External Evaluation and Annual Reporting Tools.
• Providing technical assistance to coordinate and support the process of voluntary independent multisectoral evaluation of country core capacities, (including at the human animal interface) and implementation of the IHR in 67 countries that carried out independent Joint External Evaluations by 31 December 2017.
• Developing national action planning to strengthen country capacities for health security including the implementation of the IHR.
• Developing capacity for specific areas, such as country coordination mechanisms, emergency preparedness, response capacities, laboratories, infection prevention and control, risk communication, rapid response teams, points of entry, after-action reviews, simulation exercises, and preparedness and response to chemical and radiological hazards.

Since early 2016 WHO has supported the Humanitarian Development Nexus (HDN) Task Team of the Interagency Standing Committee (IASC). WHO is co-leading on a comprehensive inter-agency work plan in this framework.

The following deliverables are included:
UNDRR

- mapping of all existing global processes and mechanisms,
- jointly drafting key messages on the nexus between DOCO and the IASC,
- providing a position paper on the linkages with sustaining peace,
- developing a typology of scenarios leading to different possibilities to implement the nexus,
- developing guidance on articulating collective humanitarian and collective outcomes,
- organizing a peer’s network of field practitioners to exchange ideas and solutions to challenges,
- gathering field evidence of progress on the nexus, and
- directing support to country teams.

DRR activities and concepts are integrated into this work both internally and inter-agency, in particular for countries suffering chronic cyclical disasters for which preparedness, prevention and mitigation strategies are required, resulting in the blending of traditional humanitarian and development approaches.

Internally WHO is also promoting HDN strategies in countries chronically affected by crises by putting UHC at the centre of local programmes, identifying bottlenecks and challenges, and working with Governments, international partners, local organizations, and affected communities to implement these strategies.

As signatory to a Grand Bargain, WHO is committed to the commitments made to localize humanitarian action. WHO is currently establishing a baseline of the proportion of all humanitarian funds received by the organization that go to local organizations (e.g. Community Based Organizations (CBOs), local NGOs, Governments) with the aim to reach the Grand Bargain targets. In alignment with the Grand Bargain, WHO supports countries and local partners to survey their specific technical and managerial capacity needs to support them in the most appropriate way.

WHO plays an active role in developing and implementing global policies pertaining to chemical and radiological hazards, including through interagency working group for industrial accidents (and for which other members include UNEP/OCHA JEU, OECD, OPCW, EC DG Environment, UNISDR8); providing the secretariat to Inter-Organization Programme for the Sound Management of Chemicals (IOMC) which brings together 9 IGOs actively involved in chemical safety (including FAO, ILO, UNDP, UNEP, UNIDO, UNITAR, WHO, World Bank and OECD).

WHO’s Radiation Emergency Medical Preparedness and Assistance Network (REMPAN) was established in 1987 to fulfil WHO’s mandate under the two international conventions on Early Notification and Assistance (IAEA, 1987). The key purpose of the network is to support WHO’s work in assisting Member States in building relevant national capacities for emergency medical and public health assistance to people over-exposed to radiation, as required by the IHR.

---

8 International efforts for industrial and chemical accidents prevention, preparedness and response: https://issuu.com/oecd.publishing/docs/brochure_chemical_accidents_prevent
Specific targeted support for DRR is provided to implement the PAHO Plan of Action for Disaster Risk Reduction 2016-2021 which advances the Sendai framework within the health sector. The strategic action plans include: (1) disaster risk recognition in the health sector; (2) governance of disaster risk management in the health sector; (3) safe, smart hospitals; (4) health sector capacity for emergency and disaster preparedness, response, and recovery. Building strong health systems in the most vulnerable countries is the foundation of these efforts. These provide the base on which to build all-hazards emergency mitigation, preparedness, and response capacities; develop long-term interagency strategies to prevent and control infectious diseases; and utilize a strong, resourced, and efficient detection, risk assessment, and response arm that projects PAHO and partner capacities for maximum impact in support of national health authorities.

The work of WHO regional offices span the areas of prevention, early warning, building resilience, and in strategies for better response to disasters and post-disaster recovery, with a focus on the health sector. For example, PAHO activities are implemented within the framework of Category 5 of the Organizations’ Strategic Plan 2014-2019, which is aligned to international frameworks including IHR, the Sendai Framework, and IASC guidance and protocols. Specific Plans of Actions, such as the PAHO Plan of Action for Disaster Risk Reduction 2016-2021 and Plan of Action for the Coordination of Humanitarian Assistance 2015-19, together with the Safe Hospital and Smart Hospital Initiatives, and specifically directed technical cooperation to strengthen IHR core capacities, are being implemented to advance commitments within these frameworks.

Appendix C: Progress in Investment in Risk Reduction and Resilience summarizes additional WHO activities associated with key words and concepts

g. Progress in Disaster Preparedness, Response and ‘Build Back Better’

WHO’s has a strong focus on emergency preparedness and response to all types of emergencies (natural, biological, technological and societal). This refers to both strengthening country capacities and the capacity of WHO and our partners to build operational readiness and provide timely and effective response to emergencies. WHO’s activities include policy, technical guidance, capacity development and monitoring and evaluation in the following areas:

- Conduct strategic and event risk assessments to identify priority risks and assessments of capacities for emergency preparedness and response to priority risks, to inform planning and action for emergency preparedness, operational readiness and response
- Early warning systems (mostly focused on epidemics; also, ENSO)
- Emergency response planning including contingency planning for specific risks
- System-development capacities and personnel for emergency preparedness and response (e.g. national focal points for the IHR, emergency operations centres, establishment and accreditation of emergency medical teams, rapid response teams, media and risk communications, surveillance, laboratories, mental health, chemical hazards, emergency medical care, radiation emergencies)
- Logistics systems (e.g. interagency emergency health kits, procurement and transport of supply systems)
- Partnerships (e.g. strategic partnership for health security, Global Health Cluster, emergency medical team’s initiative, e.g. GOARN, REMPAN
- Simulations and exercises
- After action reviews
- WHO operational readiness strengthening (e.g. risk assessments, planning, training, rosters, exercises)

i. Early warning:

WHO has roles in strengthening country capacities for disease early warning systems and rolling out of such systems in emergency response operations. WHO has established an internal task force on early warning and early action for a comprehensive approach to early warnings towards early action. WHO takes a differential approach to different types of crises:

- WHO leads the UN system regarding infectious events early-warnings and this strategy involves the deployment of specialized early-warning tools (E-WARS) as well as direct prevention and preparedness support to Member States. In addition, a specialized team in WHO headquarters with focal points in all WHO regions are tasked to systematically assess the public health risks of reported events on an ongoing basis, in line with WHO’s accountability under IHR (2005). WHO has established protocols to reflect this work in the IASC early-warning/early-action reports, and to systematically alert within 48h the UNSG and the UN ERC for all risks assessed as high to very high at regional or global levels.
- WHO relies upon the knowledge and systems established throughout the UN system and the IASC system to react to warnings related to natural hazards, famine (FEWS) and possible disasters as well as to warnings related to conflict and instability.

ii. Recovery

WHO provides support to countries in the following ways:


---


WHO-EMRO: Implementation guide for health systems recovery in emergencies: transforming challenges into opportunities (2020)

Develop and roll-out of WHO guidance such as:

- Build health systems resilience for universal health coverage and health security during the COVID-19 pandemic and beyond: WHO position paper\footnote{Building health systems resilience for universal health coverage and health security during the COVID-19 pandemic and beyond: WHO position paper: http://apps.who.int/iris/handle/10665/346515} which focuses on Health EDRM

Provide technical inputs to Post Disaster Needs Assessment guidance and tools which included a focus on reducing risk of future disasters

- Regional offices have led the participation in the post-disaster needs assessments and planning for recovery, including technical support, in cooperation with the ministries of health, for developing recovery plans and strategies following disasters due to natural hazards in the countries, such as the Philippines, Colombia, Haiti, Serbia and Nepal.

Publication of minimum standards for emergency medical teams and rehabilitation through the Disability and Rehabilitation

Provide technical assistance provided for health systems recovery in countries affected by Ebola in West Africa, DRC and COVID-19

Provide technical inputs to IRP guidance and to International Recovery Platform (IRP) forums for recovery in general and for COVID-19 specifically, as a member of the IPR through the WHO Kobe Centre.

Provide technical guidance and assistance for psychosocial support and mental health services in emergencies, and for the strengthening of mental health programmes in countries in the aftermath

Facilitate and participate in multisectoral training for Post Disaster Needs Assessment (PDNA) including courses on the Analysis of Disrupted Health

WHO works closely with international and nongovernmental organizations (including ICRC, Humanity and Inclusion (previously Handicap International), the ICRC MoveAbility Foundation, amongst others), as well as rehabilitation professional associations and independent experts to implement system strengthening for rehabilitation in disaster-prone countries/areas. This work is led by Ministries of Health and involves the application of defined processed and WHO resources conduct comprehensive situation assessments, develop strategic plans and monitoring and evaluation frameworks, of which emergency preparedness and response (such as assistive product stockpiling, surge capacity of services and facilities and emergency referral mechanisms) are a part.
Appendix D: Progress in Disaster Preparedness, Response and ‘Build Back Better’

details additional technical and other support to given to countries.

iii. Collaboration, Partnership and Cooperation

WHO’s work at country level is based on the WHO Country Cooperation Strategies (CCS) or Biennial Work plans (for the countries in European region). Both documents reflect strong national ownership as they are developed in close collaboration with and in support of national health strategies, plans and programmes. Guidance on the development of the CCSs refers to the inclusion of risk profiles in the country situational analysis, the development of actions to support health emergency and disaster risk management, and health systems in fragile and conflict affected settings. They often include activities on capacity building for IHR, emergency preparedness and response.

Country offices

Through WHO Country Offices, WHO is a member of all UN Country Teams UNCT) and participates in the development and implementation of UN Sustainable Development Cooperation Frameworks. WHO contributed health inputs to the development of UNSCDR guidance on DRR which includes an annex on Climate Change. In addition, within the framework of the CADRI Partnership, WHO supports interagency activities in countries in Africa, Eastern Mediterranean, Americas, Asia and Europe.

For example, in the region of the Americas, WHO/PAHO’s work within the UNCTs on development assistance has enabled most countries to implement actions towards strengthening their emergency risk management capacities. WHO/PAHO works with UNCTs and supports the governments of Member States to strengthen disaster management through capacity building and advocacy with the Ministries of Health to ensure funding and personnel to advance disaster risk management in countries. Many countries have developed sectoral and/or interinstitutional contingency and response plans to face disasters with potential public health impact, such as the El Niño phenomenon and related events (droughts and floods), migratory crisis as well as emerging or potential outbreaks (e.g. COVID-19, Zika, Yellow Fever).

UN Agencies

WHO leads or supports partnerships, networks and programmes with a multitude of UN agencies and organizations.

Appendix E: Collaborative Partnerships – UN Agencies provides additional examples of more than 25 of these UN-WHO partner agencies.

WHO provides health inputs to UN system policies, products, forums and reports through participation in many interagency groups, for public partnership capacity building, EMT initiatives,
global frameworks and cluster efforts, NGO and interagency working groups, DRR-specific partners of science and senior leadership, global and regional thematic platforms.

Appendix F: Collaborative Partnerships – UN-WHO health inputs to UN system provides additional examples of 15 of these UN-WHO partner agencies that WHO contributes to policies, products, forums, etc.

WHO is a member of the Senior Leadership Group and an active member of the UN Focal Points group providing health inputs and supporting the development of interagency policies (e.g. UN Plan for Action for Disaster Risk Reduction for Resilience), frameworks (e.g. UN Resilience Framework) and reports. WHO supported UNDRR and the Government of Thailand in co-organizing an international conference that resulted in the Bangkok Principles for the implementation of the health aspects of the Sendai Framework for Disaster Risk Reduction 2015-2030.

WHO has ensured the integration of health inputs in UNISDR guidance such as Words into Action and Technical Notes for monitoring and reporting of the Sendai Framework, as well as UN system reports and the organization of health-related events at the Global Platforms for DRR and World Reconstruction Conference where WHO has released Official Statements on all occasions. In 2022, WHO highlighted the need for whole-of-society engagement in building health systems resilience and health security during recovery, based on the lessons learned from COVID-19 with all hazard approach. This was further emphasized in several high-level events organized by WHO, including a whole-of-society recovery priorities for health system strengthening, a webinar for UN Resident coordinators on Inclusive recovery: risk reduction and preparedness and a UN Crisis Management Team meeting on Integrating Disaster Risk Reduction into COVID-19 response and recovery and a number of regional webinars conducted related to resilient health systems and risk reduction.

WHO led the health sessions at the 7th Global Platform for Disaster Risk Reduction in which two side events were specially organized and participated by the governments and partners to focus on Integrating biological hazards in national disaster management policy: a call for whole-of-society action. The session highlighted the need for collaboration between Health and National Disaster Management authorities in preventing, preparing for and responding to COVID-19 and the concurrent emergencies.

Every year WHO at HQ and regional levels has marked the International Day for Disaster Risk Reduction with webpages and participation in WHO, UNDRR or country events. WHO also manages the WHO Thematic Platform for Health EDRM and its associated Research Network which includes support to UNDRR and the implementation of the Sendai Framework among its Terms of Reference.

Through the WHO Regional Offices, WHO collaborates with UNDRR Regional Offices in several ways, e.g., participating in Regional Platforms for DRR as speakers, event organizers and contributors to the regional strategies and plans; International Day for Disaster Reduction Activities; and collaboration for the implementation of DRR in countries such as risk assessments and planning.

PAHO has been hosting UNDRR Regional Office for the Americas in Panama City since it was created including facilitating many of its general operating processes. Since 2008, PAHO and UNISDR has had an ongoing Letter of Understanding for collaboration in the Americas that
identifies areas for cooperation including joint technical publications, reviews, networking and information management. PAHO, as part of the Regional Advisory Group on Disaster Risk Reduction for the Americas, has collaborated with the UNISDR secretariat to develop all Regional Platforms for Disaster Risk Reduction. Regional Platforms provides an opportunity for Member States including the health sector representatives to share experiences, build their capacities, transfer knowledge and show successes related to DRR at the national and local levels.

*Other relevant stakeholders*

WHO leads or collaborates with many partnerships and stakeholders at global, regional, national and sub-national levels. This includes collaborating centers, public private partnerships, development organizations, global cluster efforts, ministries, NGOs, economic forums, regional offices and coordination centers.

**Appendix G: Collaborative Partnerships – WHO-Other Relevant Stakeholders** provides *additional* examples of more than 25 of these UN-WHO partner agencies.

- **Progress in achieving the Targets of the Sendai Framework**

WHO supported Member States, UNDRR and stakeholders by providing technical inputs to the terminology and health-related targets and indicators for the Sendai Framework Monitoring Process, launched in December 2017 and continuing to work with UNDRR on Sendai Framework monitoring with a focus on health indicators. For example, WHO collaborated with UNDRR on conducting training of trainer workshops for over 100 participants to advance health reporting on the Sendai Framework based on the WHO guidance in 2020.

**Publications**

- WHO has also published the WHO technical guidance notes for Sendai Framework reporting for ministries of health. World Health Organization; 2020


  - The Working Paper provides guidance to countries on reporting on the COVID-19 pandemic in the Sendai Framework monitoring system with a focus on the alignment of data reported to WHO on COVID-19 and the SFM with respect to three key SFM indicators related to COVID-19 deaths, cases and disruption to health services. The
Working paper was released in March to enable countries to submit their data from 01 January - 31 December 2020 for the reporting milestone of the Sendai Framework Monitor (SFM) on 31 March 2021 and to ensure consistency in these data with country reporting to WHO.

Webinar

- WHO and UNDRR conducted three webinars on the Working Paper to more than 100 Sendai Framework focal points across all 6 regions in 2021.

Indicators

- Inclusion of SDG/Sendai Framework targets and indicators on mortality and people affected in the 100 WHO Global Reference List of 100 Core Health Indicators\(^{15}\) (plus health-related SDGs) & Global Health Observatory

The monitoring of WHO and Member State contributions to implementing the Sendai Framework will continue to be be improved by the roll out of the WHO Sendai Framework tools in WHO and with Member States in future. Reports take account of the results framework for regional strategies for DRR, for example, PAHO’s Regional DRR Plan of Action, South-east Asia Regional Office (SEARO) Regional Plan for Strengthening the IHR, Asia Pacific Strategy for Emerging Diseases and Public Health Emergencies (APSED III)\(^{16}\), and the Western Pacific Region Office (WPRO) Framework for Action for Disaster Risk Management for Health. WHO and heath sector reporting against the SDGs is supported by the inclusion of SDGs and Sendai Framework Indicators in the 13th GPW and the WHO Reference List of 100 Core Health Indicators, and the development of WHO guidance notes for Sendai Framework reporting by ministries of health which cover all 7 Sendai targets for publication later this year.

IV. Contextual shifts, new and emerging issues, and challenges

a. Retrospective 2015 – 2022

Created in response to recommendations by the UN Secretary General’s Global Health Crises Task Force in 2017, the Global Preparedness Monitoring Board (GPMB) was co-convened by the World Health Organization and the World Bank Group and formally launched in May 2018. In issuing its warning in its 2019 inaugural report, the GPMB stressed the inadequacy of systems and financing required to detect and respond to health emergencies. As the COVID-19 pandemic has proven, systems remain dangerously deficient and under-resourced. The pandemic has also exposed the human dimensions of health security, the actions of - both leaders and citizens - that

---

\(^{15}\) 2018 Global reference list of 100 core health indicators (plus health-related SDGs): https://apps.who.int/iris/handle/10665/259951

\(^{16}\) Asia Pacific strategy for emerging diseases and public health emergencies (APSED III): advancing implementation of the International Health Regulations (2005) : working together towards health security: https://apps.who.int/iris/handle/10665/259094
are so critical to vigorous preparedness and response. The GPMB’s report in 2020 highlights responsible leadership and citizenship, as well as the adequacy of systems and resources, as key factors for success. It puts a special emphasis on the factor that binds these four elements together into an effective whole: the principles and values of governance in general, and disaster risk governance, that ensure the right choices, decisions and actions are taken at the right time. It points out that none are safe until all are safe and calls for a renewed commitment to multilateralism and to WHO and the multilateral system. One of the most important lessons learnt from the COVID-19 pandemic is that political leadership makes the difference. Effective leaders act decisively on the basis of science, evidence and best practice, and in the interests of people. Emergency response is not a choice between protecting people and protecting the economy; public health action is the quickest way to end the threat and return to productivity and health security.

The gaps noted herein are closely related to the gaps being observed and learned from the ongoing COVID-19 pandemic strategic preparedness and response as they relate to national legislation, regulations and standards for DRR. The pandemic has provided a harsh test of the world’s preparedness, in legislation at the highest level of it. Failure to learn the lessons of COVID-19 or to act on them with the necessary legislation, resources and commitment will mean that the next pandemic, which is sure to come, will be even more damaging. WHO, through the GPMB, calls for sustained investment in prevention and preparedness, commensurate with the scale of a pandemic threat.

b. WHO programme

Significant progress has been made since the establishment and implementation of the WHO Health Emergencies Programme which has focused on the developing capacities for implementing the IHR (2005) and emergency preparedness for outbreaks, and in improving the WHO’s capacity to respond swiftly and effectively to emergencies. With the focus on emergency preparedness and response, less resources have been placed on prevention and recovery, as well as for risks associated with natural, chemical and radiological hazards. Due to competing priorities and reassignment of staff to emergency response, such as COVID-19 and Ebola, there have also been some delays in the implementation of all-hazards Health EDRM activities at country, regional and global levels.

c. Climate

WHO Health Emergencies Programme has collaborated with the WHO Climate Change units at global and regional levels in a number of ways. For example, WHO promotes a coherent and integrated approach to national efforts for building climate resilient health systems by promoting relevant initiatives and tools on climate resilience and DRR. WHO’s approach to support countries aiming to work on climate change and health is the WHO Operational Framework for building
Climate Resilient Health Systems\textsuperscript{17} and includes DRR as one of its main components. At the global level, WHO’s climate change unit and Country Preparedness Index (CPI) (and its predecessor Emergency and crisis management department) facilitated the establishment and implementation of the WHO/WMO Joint Office for Climate and Health with the World Meteorological Organization which includes action on “extreme events” among its major functions. Other areas of collaboration to address climate change adaptation and DRR are the inclusion of and/or contributions towards the following:

- Health emergency risk management in the WHO Action Agenda on climate and health
- Global Climate and Health Conference in Paris and Special Initiative for Climate Change in Small Island Developing States
- El Niño Southern Oscillation (ENSO) fact sheet development
- El Nino Southern Oscillation Index (ENSO) reporting
- Climate risk management as part of the series on Health EDRM by the WHO Thematic Platform (together with Public Health England and UNISDR);
- WHO framework inclusion of emergency preparedness and response
- WHO inputs and participation in guidance (interagency SOPs), analysis, early warning, advocacy, technical assistance to affected countries
- WHO, through World Health Assembly Resolutions and Regional Committee Resolutions (which cross reference climate change and disaster risk management)
- WHO Director General made climate change and health a key priority for WHO
- GPW 13, in a special platform on climate change and environmental health is included. Since 2010, the number of projects being implemented in countries has been increased. The main objective of the projects is to strengthen the resilience of health systems and include actions related to climate-informed health early warning systems and preparedness for the negative health effects caused by climate variability and change.
- WHO promotes working across sectors, emphasizing health-determining sectors, such as water, sanitation, energy, agriculture and food.
- WHO projects promote the integration of climate and weather information to current health surveillance programmes of climate-sensitive diseases such as cholera and malaria, which allows health programmes to prevent outbreaks rather than just reacting to them.

In November 2017, a WHO Special Initiative on Climate change and Health in small island developing States was launched at the twenty-third Conference of the Parties to the UN Framework Convention on Climate Change in collaboration with Fiji (as President of COP23) and the UNFCCC Secretariat, in Bonn, Germany.

Since March 2011, PAHO has been supporting selected countries to implement the Smart Hospitals Initiative that integrates climate change and DRR considerations in the health sector,

\footnotesize{\textsuperscript{17} Operational framework for building climate resilient health systems: \url{https://www.who.int/publications/i/item/9789241565073}}
building on the WHO/PAHO Safe Hospitals Initiative. A hospital is considered “smart” when it links structural and operational safety with green interventions, at a reasonable cost-benefit ratio. This initiative seeks incorporation of the most feasible climate-smart and safety standards in health facilities to improve their resilience and reduce their impact on the environment. Enhanced safety standards, a reduction in down time and damage to hospitals from natural hazards as well as operating expenditures in terms of water and energy savings are expected. This aligns with the recommendations on the Strategic Approach on Climate Change specifically, to scale up action in transformative initiatives relating to climate information, early warning and preparedness, water management and resilient cities and infrastructure, with joint capacity building for risk-informed development warranting special attention. The initiative also supports the recommendation made to provide coherent and, where possible, integrated support to national efforts, including in the context of the implementation of nationally determined contributions, on climate resilience and DRR. WHO HQ and other WHO Regional Offices are facilitating the application of Climate-resilient and Smart Hospitals in other countries, for example, Pacific Island countries.

V. Prospective review and recommendations

a. Recommendations for realising the Outcome and Goal of the Sendai Framework

These recommendations reflect the key principles of the Sendai Framework and the Health EDRM framework, the key success factors for implementing disaster risk management in health and across sectors, and lessons from emergencies and disasters including but not limited to COVID-19.

These are practical recommendations for action to reduce the health risks and consequences and improving health outcomes for all people across the world who face the risks of emergencies and disasters.

i. Risk Assessment, Information and Understanding

- A whole-of-society approach is required in conducting strategic emergency and disaster risk assessments across sectors and in health (e.g. through STAR).
- Multi-hazard early warning systems should integrate health and involve the health sector with respect to:
  - Inclusion of disease outbreaks and integration of disease early warning systems (e.g. EWARS)
  - Assessment and monitoring risk through a public health lens
  - Engagement of the health sector in the formulation and communication of health-impact focused early warnings
  - Communication of early warnings to the health sector in order to prepare, get ready and take the necessary action to implement.
• Risk-informed, multi-hazard approaches must be emphasized to maximize the use of limited resources taking a coherent approach incorporating CCA alongside DRR.
• Systemic risks must be identified to address the root causes of vulnerabilities, the social and economic inequalities embedded in disaster risk and resilience, including limited access to health services.

ii. Risk Governance and Management

• Coordination mechanisms, partnerships, relationships at all levels between health, disaster management organisations and all sectors and stakeholders must be reinforced.
  o the voice of public health must be heard from people at risk, health sector and other sectors, and leadership
  o the health sector needs to engage effectively with other sectors
  o all other sectors need to include health sector in their committees, forums, design and delivery of activities
• Disaster risk management strategies, plans and actions addressing the health risks and consequences of emergencies and disasters must be better assured by applying an all-hazards and risk management approach.
• Improving people’s health and wellbeing as a common outcome for whole-of-society strategies and action must be common aim.
• All sectors should demonstrate their role in reducing the health risks and consequences of all types of emergencies and disasters.
• Health sector and stakeholders in all aspects of DRR must be involved, e.g., policy and planning, risk assessment, early warning systems, learning, critical infrastructure protection and strengthening of health systems.
• Biological hazards including epidemics and pandemics strategies must be integrated in global, national and local strategies for DRR.
• A whole-of-society approach is required in conducting strategic emergency and disaster risk assessments across sectors and in health (e.g. through STAR).
• Capacities for reducing risks of natural, technological and other hazards can be applied to epidemics and pandemics.
• Capacities for reducing risks of biological hazards can be applied to all other sources of risk.
• Integration of biological hazards will strengthen collaboration and help countries and communities prepare for disease outbreaks with a whole-of-society approach.
• Opportunities for strengthening system-wide coherence in support of the Sendai Framework and other agreements, through a risk-informed and integrated approach with the Health EDRM Framework, IHR (2005) and the Paris Agreement and the SDGs exist. These existing global policy frameworks and initiatives already provide a broad range of entry points for mainstreaming DRR, national level implementation of UN system policies, guidelines and inter-agency initiatives that integrate and demonstrate linkages between the
Sendai Framework global targets and priorities of action with other international frameworks should be encouraged.

- Integration of the assets and needs of sub-populations including poverty, gender, people with disabilities and others in DRR strategies making sure that no one is left behind should be ensured.

iii. Investment in Risk Reduction and Resilience

The Sendai Framework related to health stands the test of time. These recommendations are based on the wording of the Sendai Framework in Priority 3 and are complemented by other recommendations in other priorities.

- Continue the implementation of Health EDRM aligned with the Sendai Framework, e.g.
  - Strengthen investment in disaster-resilient, prepared and decarbonized hospitals and other health care facilities hospitals that benefit from priority being given to serving the health system in critical infrastructure projects and service delivery;
  - Strengthen resilient national health systems, including integration of Health EDRM into primary, secondary and tertiary health care, especially at the local level and applying a risk-based whole-of-society approach;
  - Develop the capacity of the health workforce for Health EDRM at all levels, with an emphasis on strengthening leadership and management competencies, and
  - Strengthen the role of the local health workforce in understanding disaster risk and applying and implementing Health EDRM DRR approaches in health work; and
  - Promote and enhancing education in Health EDRM in schools of medicine, public health and nursing.

- Strengthen the design and implementation of inclusive policies and social safety-net mechanisms, including through community engagement, integrated with livelihood enhancement programmes, and Health EDRM efforts focused on local levels.

- Strengthen the integration of risk management approaches to essential public health function and access to basic health-care services, including maternal, newborn, child and adolescent health, sexual and reproductive health, mental health and psychosocial support, trauma and emergency services, non-communicable diseases, food security and nutrition, care for older persons, etc.

- Ensure people with physical or mental health conditions (e.g. non-communicable or chronic diseases) or living in vulnerable settings, are included in the design of policies and plans to manage their risks before, during and after disasters, including having access to life-saving services.

- Enhance cooperation between health authorities, national disaster management organizations and other relevant stakeholders to strengthen country capacity for Health EDRM and, the implementation of the IHR and the building of resilient health systems.
iv. Sendai Framework F Priority 4: Enhancing disaster preparedness for effective response, and to ‘Build Back Better’ in recovery, rehabilitation and reconstruction

- Use the good practice, lessons, innovations and evidence gained from COVID-19 to reinforce and strengthen capacities and systems to manage the risks of all types of emergencies and disasters, including biological hazards.
- Analyse the experience and identify key lessons of partnerships, actions and capacities that need to be continued, reinforced and strengthened. Do not let them disappear.
- Ensure that recovery plans and actions from COVID-19 and other emergencies and disaster builds on strengths and addresses gaps and weaknesses to manage continuing and emerging risks.
- Operationalize Health EDRM in humanitarian action and strengthen humanitarian/development collaboration around DRR with a focus on concurrent risks and events.

v. Collaboration, Partnership and Cooperation

- COVID-19 demonstrated an increased level of partnership and collaboration between health and other sectors under central leadership. These partnerships need to be sustained and applied as much to prevention, preparedness and recovery, as they are to response.

VI. Appendices
## Appendix A: Progress in Risk Assessment, Information and Understanding

<table>
<thead>
<tr>
<th>Key Words</th>
<th>Key Actions and Reference Documents</th>
</tr>
</thead>
</table>
| data standards                                | • Technical inputs to position papers and the deliberations of the Informal and Formal Sessions of Open-ended Intergovernmental Expert Working Group on Indicators and Terminology and the Sendai Framework Indicator Monitoring and Reporting Process  
   • Enhanced support to the Global Health Cluster for information management during humanitarian crises, including implementation of the public health information service standards  
   • Standards for Public Health Information Services in Health Clusters and other Humanitarian Health Coordination Mechanisms were completed and rolled out in clusters  
   • Public Health Information Services (PHIS) Toolkit and its competency-based IMO training programme was delivered with Health Cluster Coordinators training in AFRO                                                                                                                                 |
| disaggregation by gender, disability, age etc.| • WHO worked with UN DRR system group on gender equality and women’s empowerment and leadership (GEWEL) which included improving gender disaggregated data in Sendai Framework Monitor reporting  
   • WHO Guidance notes on Sendai Framework reporting by Ministries of Health put emphasis on disaggregated data by gender, age, disability, etc.  
   • WHO Global Health Observatory collects and reports data by gender and age  
   • WHO event health risk assessments include disaggregation and analysis of surveillance data by sex and age, tailored infection prevention and control documents, and inclusion of gender aspects in risk communication strategies  
   • PAHO Plan of Action for Disaster Risk Reduction 2016-2021 integrates cross-cutting approaches such as people centered actions and a gender, equity, ethnicity, human rights, and disability approach. PAHO is undertaking more systematic tracking of disaggregated disaster related data for these vulnerable groups within the umbrella of its overarching policy related to cross cutting themes (CCTs) of gender, equity, ethnicity, and human For example, Gender disaggregated data was collected and analysed during public health events of international concern such as COVID-19, Zika, Yellow Fever, Diphtheria outbreaks in Haiti and Venezuela, Measles outbreak in Venezuela, among others and used to target control strategy (such as: social mobilization, vaccination)                                                                                                                                 |
| disaster loss/impact data (mortality, people affected, economic etc.) | • WHO supported Member States, UNDRR and stakeholders by providing technical inputs to the terminology and health-related targets and indicators for the Sendai Framework Monitoring Process, launched in December 2017 |
| disaster risk information, sharing | Roll-out and implementation across all six regions of the Event Management System electronic platform for event documentation  
| | Establishment of the Epidemic Intelligence from Open Sources initiative, which includes electronic platform, global strategic plan and governance structure, and multi-partner coordination group for the Initiative  
| | WHO has ensured and sustained timely and accessible information on epidemic and pandemic threats with the publication of Disease Outbreak News and the Weekly Epidemiological Record and the creation of a dedicated knowledge transfer website  
| | Revamp of WHO headquarters website for information sharing about emergencies |

---

18 World Health Organization; 2020: https://apps.who.int/iris/handle/10665/336262


20 Weekly Epidemiological Record (WER): [https://www.who.int/publications/journals/weekly-epidemiological-record#:~:text=The%20Weekly%20Epidemiological%20Record%20(WER)%20sees%20the%20essential%20instrument,importance%20in%20including%20emerging%20or%20ongoing%20epidemics](https://www.who.int/publications/journals/weekly-epidemiological-record#:~:text=The%20Weekly%20Epidemiological%20Record%20(WER)%20sees%20the%20essential%20instrument,importance%20in%20including%20emerging%20or%20ongoing%20epidemics)
<table>
<thead>
<tr>
<th>Publications/guidelines including:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health Emergency and Disaster Risk Management</strong></td>
</tr>
<tr>
<td>- WHO Health Emergency and Disaster Risk Management Framework[^21]</td>
</tr>
<tr>
<td>- Revised and new Overview and Fact Sheets on Health Emergency and Disaster Risk Management with WHO Departments, Public Health England, UNISDR and partners (15 Fact Sheets)[^22]</td>
</tr>
<tr>
<td>- Whole-of-Society action to manage health risks and reduce socioeconomic impacts of emergencies and disasters[^24]</td>
</tr>
<tr>
<td>- WHO Guidance on Research Methods for Health EDRM[^25]</td>
</tr>
<tr>
<td>- A Strategic Framework for Emergency Preparedness[^26]:</td>
</tr>
<tr>
<td>- Managing disaster risks in communities[^27] focuses on promoting the role of primary health care (PHC) facilities in strengthening community participation in DRR and helping the community to identify indicators of disaster risk and vulnerability. (EMRO)</td>
</tr>
<tr>
<td><strong>Sendai Framework</strong></td>
</tr>
</tbody>
</table>

[^21]: WHO Health Emergency and Disaster Risk Management Framework: https://apps.who.int/iris/handle/10665/326106
[^23]: Publication of the Glossary of Health EDRM Terminology: https://www.who.int/publications/i/item/9789240003699
[^24]: Whole-of-Society action to manage health risks and reduce socioeconomic impacts of emergencies and disasters: https://apps.who.int/iris/handle/10665/339421
[^25]: WHO Guidance on Research Methods for Health EDRM: https://apps.who.int/iris/handle/10665/345591
[^27]: Managing disaster risks in communities: https://apps.who.int/iris/handle/10665/204677
WHO Technical guidance notes on Sendai Framework reporting by ministries of health. WHO published the to provide substantial guidance towards strengthening reporting on health aspects of the Sendai Framework targets and indicators for all types of risks as part of the Organization’s obligations against the Framework.

- To support implementation, WHO and UNDRR conducted three webinars on the Working Paper to more than 100 Sendai Framework focal points across all 6 regions
- Health technical inputs integrated into interagency and multisectoral publications (e.g. UNDRR)
- UNISDR technical notes for Sendai Framework Monitoring and Reporting
- UNISDR Words Into Action Guides (national risk assessment, national strategies)

Other interagency guidelines

- Integrating DRR and Climate Change Adaptation in the UN Sustainable Development Cooperation Framework (UNSDCF): Special addendum for integration of disease outbreaks, epidemics and pandemics in Cooperation Frameworks
- IASC Interagency SOPs for ENSO episodes are Standard Operating Procedures (SOPs) are intended to help catalyse and guide earlier humanitarian and development action to future ENSO-related extreme weather events (including drought, flooding, cyclones and extreme heat/cold and related events such as disease outbreaks)

Resilience

- WHO was a member of the core drafting group that developed and published the UN Common Guidance on Helping Build Resilient Societies which aims to strengthen coherence in UN resilience-building efforts at country level in support of Governments’ sustainable development objectives

Health systems and services

- Global Competency Framework for Universal Health Coverage
| Practice activity 24: Developing preparedness for health emergencies and disasters, including disease outbreaks  |
| Practice Activity 25: Responding to health emergencies and disasters, including disease outbreaks  |
| WHO PHC Monitoring and Evaluation Framework  |
| Primary health care measurement framework and indicators: monitoring health systems through a primary health care lens  |
| Building health systems resilience for universal health coverage and health security during the COVID-19 pandemic and beyond: WHO position paper  |
| Essential public health functions, health systems and health security  |

**Safe hospitals**

**Operational readiness**
- WHO Guidance for contingency planning, business continuity planning, and readiness planning checklist developed/updated for implementation at country level

**International Health Regulations**
- NAPHS for all: a 3 step strategic framework for national action plan for health security
- Health systems for health security: a framework for developing capacities for International Health Regulations, and components in health systems and other sectors that work in synergy to meet the demands imposed by health emergencies

---

34 Primary health care measurement framework and indicators: monitoring health systems through a primary health care lens: [https://www.who.int/publications/i/item/9789240044210](https://www.who.int/publications/i/item/9789240044210)
35 Building health systems resilience for universal health coverage and health security during the COVID-19 pandemic and beyond: WHO position paper [https://www.who.int/publications/i/item/WHO-UHL-PHC-SP-2021.01](https://www.who.int/publications/i/item/WHO-UHL-PHC-SP-2021.01)
36 Essential public health functions, health systems and health security: [https://www.who.int/publications/i/item/9789241514088](https://www.who.int/publications/i/item/9789241514088)
37 Hospital Safety Index: [https://apps.who.int/iris/bitstream/handle/10665/258966/9789241548984-eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/258966/9789241548984-eng.pdf)
38 NAPHS for all: a 3 step strategic framework for national action plan for health security: [https://apps.who.int/iris/handle/10665/278961](https://apps.who.int/iris/handle/10665/278961)
39 Health systems for health security: a framework for developing capacities for International Health Regulations: [https://apps.who.int/iris/handle/10665/342006](https://apps.who.int/iris/handle/10665/342006)
<table>
<thead>
<tr>
<th>WHO benchmarks for IHR (IHR) capacities</th>
<th>Joint external evaluation tool: International Health Regulations (2005), 3rd ed. World Health Organization.</th>
<th>IHR core capacity monitoring network: questionnaire for monitoring progress in the implementation of IHR core capacities in states parties</th>
</tr>
</thead>
</table>

**Climate change and environmental health**
- Operational Framework for building climate resilient health systems
- WHO guidance for climate resilient and environmentally sustainable health care facilities
- WHO Manifesto for a healthy recovery from COVID-19
- Compendium of WHO and other UN guidance on health and environment, 2022 update
- Developed information for the health sector on prevention preparedness and planning for chemical events triggered by natural hazards (Natech events)

**COVID-19**
- WHO has produced numerous guidance, advisories, public advice, travel advice, media resources, training material, tools and research guidance for COVID-19
- Many conferences and webinars and videos have been held, including through EPI-WIN: WHO Information Network for Epidemics to make scientific information accessible, understandable and meaningful to all

---

40. WHO benchmarks for IHR (IHR) capacities: https://apps.who.int/iris/handle/10665/311158
42. IHR core capacity monitoring network: questionnaire for monitoring progress in the implementation of IHR core capacities in states parties: https://apps.who.int/iris/handle/10665/255756
44. WHO guidance for climate resilient and environmentally sustainable health care facilities: https://apps.who.int/iris/bitstream/handle/10665/335909/9789240012226-eng.pdf
46. Compendium of WHO and other UN guidance on health and environment, 2022 update: https://www.who.int/publications/i/item/WHO-HEP-ECH-EHD-22.01
47. Developed information for the health sector on prevention preparedness and planning for chemical events triggered by natural hazards (Natech events): http://www.who.int/ipcs/publications/natech/en/
49. EPI-WIN: WHO Information Network for Epidemics: https://www.who.int/teams/epi-win
communities during emergencies so that their decisions, policies and actions are evidence-informed. This has also aimed to manage the Infodemic more effectively.

**Guidance**

Topics for WHO Guidance include:
- Guidance for conducting a country COVID-19 intra-action review (IAR)\(^{50}\).
- Animal-human interface and food safety
- Clinical care
- Critical preparedness, readiness and response
- Essential health services
- Essential resource planning
- Infection prevention and control/WASH
- Laboratory and diagnosis
- Mass gatherings
- Risk communication and community engagement
- Schools, businesses and institutions
- Surveillance, case investigation and epidemiological protocols
- Travel, Points of Entry and Border Health
- Vaccines
- Vulnerable populations and fragile settings

**Emergency medical teams**
- Classification and minimum standards for emergency medical teams\(^{51}\)
- Emergency medical teams: minimum technical standards and recommendations for rehabilitation\(^{52}\)

**Mental Health**

---


\(^{51}\) Classification and minimum standards for emergency medical teams: https://apps.who.int/iris/handle/10665/341857.

\(^{52}\) Emergency medical teams: minimum technical standards and recommendations for rehabilitation: http://apps.who.int/iris/bitstream/handle/10665/252809/9789241511728-eng.pdf
## Recovery

- Technical note: Linking DRR and Mental Health and Psychosocial Support (MHPSS) - Practical tools, approaches and case studies

### Disaster Risk/Event Data (Hazard, Exposure, Vulnerability, Capacity), Ecosystems/Climate Change Scenarios

- Standardized Event Risk Assessment processes have been unified across the three levels of WHO.
- WHO conducts risk analysis of hundreds of disease outbreaks annually and publishes Disease Outbreak News (DONs) to confirmed or potential public health events, of:
  - Unknown cause with a significant or potential international health concern that may affect international travel or trade;
  - A known cause which has demonstrated the ability to cause serious public health impact and spread internationally;
  - High public concern which may lead to disruption of required public health interventions, or could disrupt international travel or trade.
- WHO, through country and regional offices and headquarters, has provided support for developing national capacities for event risk assessment in line with the IHR (2005), taking into account preparedness and response with a focus on disease outbreaks.
- Epidemic Intelligence from Open Sources initiative (EIOS) brings together new and existing initiatives, networks and systems to create a unified all-hazards, One Health approach to early detection, verification, assessment and communication of public health threats using publicly available information.

---


56 Building health systems resilience for universal health coverage and health security during the COVID-19 pandemic and beyond: WHO position paper: [http://apps.who.int/iris/handle/10665/206729](http://apps.who.int/iris/handle/10665/206729)

57 WHO Disease Outbreak News (DONs): [https://www.who.int/emergencies/disease-outbreak-news](https://www.who.int/emergencies/disease-outbreak-news)

58 Epidemic Intelligence from Open Sources Initiative (EIOS) [https://www.who.int/initiatives/eios](https://www.who.int/initiatives/eios)
<table>
<thead>
<tr>
<th>WHO has strengthened WHO and Member states capacities for the implementation of a rapid risk assessment approach for acute public health risks across all six regions.</th>
<th>WHO has co-organised events with partners and participated in Global and Regional Platforms for DRR and the World Reconstruction Conference</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO health data is included in:</td>
<td>WHO has conducted numerous webinars with UNDRR and partners on themes related to:</td>
</tr>
<tr>
<td>- monitoring of ENSO by IASC interagency working group and SOPs for ENSO episodes</td>
<td>- Safe hospitals (with International Hospitals Federation)</td>
</tr>
<tr>
<td>- INFORM</td>
<td>- Sendai Framework monitor</td>
</tr>
<tr>
<td>Infectious disease projections and Health EDRM included in the WHO Action Agenda on climate and health, Global Climate and Health Conference in Paris and Special Initiative for Climate Change in Small Island Developing States</td>
<td>Disaster risk management, Sendai Framework, IHR and COVID-19 (with Interparliamentary Union)</td>
</tr>
<tr>
<td>WPPO has a regional system for early detection, verification, risk assessment and information sharing of disease outbreaks and disasters, complemented by state-of-the-art emergency operations centres, Western Pacific Surveillance and Response Journal, and regional information platform.</td>
<td>Health EDRM Platform and Research Network has conducted numerous webinars on Research for Health EDRM</td>
</tr>
<tr>
<td>Surveillance networks established for specific vaccine preventable diseases to provide support to Ministries and surveillance sites (by IVB EPI)</td>
<td>WHO leadership and coordination at World Congresses of Disaster and Emergency Medicine (WCDEM)</td>
</tr>
<tr>
<td>Event Management System electronic platform was established for event documentation</td>
<td>WHO has supported countries across WHO Regions to conduct After-action reviews, experience to be shared and lessons to be identified.</td>
</tr>
<tr>
<td>Surveillance networks established for specific vaccine preventable diseases to provide support to Ministries and surveillance sites (by IVB EPI)</td>
<td>Information on health security is regularly published on WHO Strategic Partnership Portal for Health Security</td>
</tr>
</tbody>
</table>

---

59 INFORM: https://drmkc.jrc.ec.europa.eu/inform-index
60 WHO GIS Centre for Health: https://www.who.int/data/GIS
<table>
<thead>
<tr>
<th><strong>indigenous &amp; local knowledge</strong></th>
<th>• PAHO programme supports the implementation of recommendations for engaging indigenous peoples in disaster risk reduction including approaches and strategies to reduce disaster and overcome existing challenges to their implementation[^61]</th>
</tr>
</thead>
</table>
| **multi-hazard early warning system** | • Health inputs to WMO Multihazard Early Warning System Checklist[^62]  
• WHO HQ & ROs supported health sector early warning, preparedness and response to El Nino (ENSO) events with global, regional, country reporting, advocacy and support to countries affected  
• Health inputs provided to IASC Early Warning and Early Action Reports. Results disseminated to WHO Regional Offices for action at country office level.  
• Event risk assessment, disease surveillance and risk communication form key elements of disease early warning and response systems (Disease - EWARS[^63])  
• Development of Early Warning and Response capabilities, including the implementation of EWARS-in-a-box initiative in all Regions.  
• Early Warning, Alert and Response System (EWARS) implemented in disease outbreaks, public health emergencies, e.g. cyclones, earthquakes.  
• The EWARS system in the Philippines & Japan SPEED was used in Typhoon Haiyan and was quickly put in place in response to Typhoon Ompong[^64] |
| **multi-hazard risk assessment, mapping, modelling** | • Development and implementation of strategic multi-hazard health emergency risk assessment  
• Publication of the Strategic Toolkit for Assessing Risks (STAR). In November 2021, WHO published the Strategic Toolkit for Assessing Risks[^65]: a comprehensive toolkit for all-hazards health emergency risk assessment (STAR). In line with the IHR (2005) Monitoring and Evaluation Framework and the Sendai Framework for Risk Reduction, this toolkit provides countries and partners a comprehensive, easy-to-use toolkit and approach to enable national and subnational governments to rapidly conduct a strategic and |


[^62]: Health inputs to WMO Multihazard Early Warning System Checklist: [https://library.wmo.int/index.php?lvl=notice_display&id=20228#Yu5QTNZBzIV](https://library.wmo.int/index.php?lvl=notice_display&id=20228#Yu5QTNZBzIV)


[^65]: Strategic toolkit for assessing risks: a comprehensive toolkit for all-hazards health emergency risk assessment: [https://www.who.int/publications/i/item/9789240036086](https://www.who.int/publications/i/item/9789240036086)
### Evidence-Based Assessment of Public Health Risks
- **Member States**, supported by WHO, have conducted more than 80 STAR risk assessment workshops across WHO regions.
- **Seasonal Emergency and Disaster Risk Calendar (EDRC).** WHO developed emergency and disaster risk calendar to support STAR. The calendar is available in English, French and Spanish.
- Risk assessment have also been conducted in response to El Niño/La Niña events in WHO, including in Papua New Guinea and the Solomon Islands.
- **SEARO published roots for resilience: a health emergency risk profile of the South-East Asia Region**

### Research, Evidence
- WHO has established the WHO Health EDRM Research Network.
- The Network comprises a core group and more than 200 participants.
- The Health EDRM Research network has been responsible for:
  - Publishing
  - Conducting webinars
  - Advising the WHO Kobe Centre on establishing research themes for funding
  - WHO Network of Collaborating Centres supporting WHO work related to emergencies
  - Road map and blueprint for COVID-19
  - Priorities for research were discussed and proposals reviewed, agenda items were identified for the World Association for Disaster and Emergency Conference, and collaborating centres were steered to focus on prioritized research subjects.
  - WHO Health Emergency and Disaster Risk Management Platform meetings at the Global Platform and Research Network established ERM 2.2
  - WHO Membership of Science and Technology Partnership for implementing the Sendai Framework
  - WHO stakeholder meeting on Research, Knowledge and Evidence for Emergency and Disaster Risk Management for Health, and health inputs to Science and Technology Conferences, roadmap and planning.
  - Pandemic Influenza Preparedness (PIP) High Level Implementation Plan II

---


68. Pandemic influenza preparedness (PIP) framework: partnership contribution (PC) preparedness high-level implementation plan II 2018-2023: [https://apps.who.int/iris/handle/10665/260538](https://apps.who.int/iris/handle/10665/260538)
<table>
<thead>
<tr>
<th>risk communication, media, public awareness, community mobilization</th>
<th>• WHO risk communication at HQ, regional office and country office levels have identified spokespersons to communicate on public health events; put in place risk communication plans, SOPs, developed guidelines, updated information for media and general public; information, education and communication materials tailored to the needs of the population; and provided rapid communication to populations and partners of a real or potential risk within 24 hours</th>
</tr>
</thead>
</table>
| science, technology, tech transfer, innovation | • Establishment of the Epidemic Intelligence from Open Sources initiative, which includes the electronic platform, global strategic plan and governance structure, and multi-partner coordination group for the Initiative  
• WHO ramped up research for COVID-19 by activating and expanding on Research and Development Blueprint⁶⁹  
• WHO provides coordination of the implementation of PIP Framework and has been working in partnership with industry and other stakeholders to ensure equitable sharing of vaccines and benefits and improve resilience and preparedness for pandemic influenza |
| training, formal and non-formal education | • Numerous training courses have been developed, made accessible through online platforms such as OpenWHO, and delivered by Member States, WHO and many partners  
• OpenWHO offers three levels of courses: basic, intermediate and advanced, under four channels:  
  • Outbreak: introduces knowledge and tools on specific diseases  
  • Go social!: focuses on cross-cutting interventions such as risk communication  
  • Ready for response: talks about humanitarian response and how best to engage in emergency situations  
  • Preparing for pandemics: brings together courses on various aspects of influenza events  
• Rapid transfer of knowledge on public health crisis to field responders through the creation of OpenWHO, an online training platform  
  - During emergencies, OpenWHO also produces special knowledge resources packages adapted from existing content  
• Other related projects include:  
  - Global Curriculum Framework Focused on Ministry of Health Staff in Management Roles for Emergency and Disaster Risk Management for Health  
  - Training manual on Hospital Safety Index |

⁶⁹ R&D Blueprint and COVID-19: [https://www.who.int/teams/blueprint/covid-19#:~:text=The%20Blueprint%20aims%20to%20improve,improve%20upon%20the%20global%20response](https://www.who.int/teams/blueprint/covid-19#:~:text=The%20Blueprint%20aims%20to%20improve,improve%20upon%20the%20global%20response).
- Created/upgraded the enabling environment accessible to countries: WHO Health Security Learning Platform
- Guidance provided to International Federation of Medical Students Associations for the development of Train-the-Trainers course on Disaster Medicine\(^7\)
- National IHR Focal Points use and adapt WHO learning approaches and training materials
- Ministry of health staff trained in disaster risk management and country capacity assessment methodology through Regional Offices and CADRI Partnership
- Mass casualty management planning and training, including all partners
- Hospital Safety Index training (regional and national) was conducted across the world in countries such Slovakia, Central African Republic, Americas, Fiji, Federated States of Micronesia, Montenegro, Nepal, the Solomon Islands and Uzbekistan
- Disease surveillance e-learning training modules developed, and Ebola-specific training materials developed

\(^7\) International Training on Disaster Medicine – IFMSA: [https://ifmsa.org/activities/international-training-on-disaster-medicine-ifmsa/]
## Appendix B: WHO Progress in Risk Governance and Management

<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>laws, regulations</td>
<td><strong>International Health Regulations</strong>&lt;br&gt;• WHO IHR Secretariat has a regulatory role with respect to the implementation of the IHR regulatory role (IHR Secretariat)&lt;br&gt;  - Maintain and test directory/network of National IHR Focal Points and regional WHO IHR Contact Points&lt;br&gt;  - Maintain IHR NFP community of practice&lt;br&gt;  - Guidance to facilitate States Parties compliance with IHR (2005) National IHR Focal Points use and adapt WHO learning approaches and training materials&lt;br&gt;  - Advice on relevant IHR provisions for States Parties through consultation with WHO regional offices and a number of States Parties.&lt;br&gt;  - EURO: on-the-job training of IHR national focal points, WHO staff. WCOs facilitated communications for NFPs and strengthened NFP capacities.&lt;br&gt;• Review annual reporting on the implementation of the IHR in coordination with national IHR focal points. As of 31&lt;br&gt;• Strengthening of all-hazards approach in the revision of to the IHR Joint External Evaluation and Annual Reporting Tools&lt;br&gt;• Regional IHR stakeholders meetings to review IHR implementation at Regional level&lt;br&gt;• Countries with, or developing multi-sectoral legislation or policies for DRM, with MoH engaged with input from the health sector&lt;br&gt;• Countries have a National DRM or Health Security plans. Strengthening national health security plans is part of the JEE emphasizing the importance of developing and maintaining national legislation and plans towards health security for all hazards.</td>
</tr>
<tr>
<td>risk informed public policies in all sectors</td>
<td>• WHO guidance related to emergencies recommends that countries base their policies, plans and activities on risk assessments.&lt;br&gt;• Integration of health emergency and disaster risk management, including emergency preparedness and response and IHR in WHO Country Cooperation Strategies&lt;br&gt;• Planning workshops ensure that actions will be health-centred in line with the Sendai framework and with the SDGs. Risk assessments followed by capacity development in including all-hazard emergency national plan as well as contingency plans for hazards which ranked either very high or high</td>
</tr>
<tr>
<td>Key words</td>
<td>Summary</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| budget/resource allocation      | • Information on financing and resources for the development of national action plans for health security is regularly published on WHO Strategic Partnership Portal  
• Inputs on health emergency and disaster risk management to Health Systems cluster project on costing of the implementation of the health goal of the SDGs and financing transformative health systems towards achievement of the health SDGs |
| strategies/plans for DRR, strengthening resilience (local, national, transboundary) | • Adoption of the Sendai Framework for DRR by 186 Member States on 18 March 2015 at the Third World Conference on Disaster Risk Reduction. Key functions: Advocacy, technical papers, briefings and facilitation of MoH participation and Member States with UNISDR for negotiation of the Sendai Framework. Health central with 38 references to health in outcome, goal, targets and in a number of health-related priority actions in operational paragraphs. Participation in all aspects of extensive consultation process.  
• National Health and multisectoral DRM planning: Technical support to Member States for all-hazard multisectoral approach to national planning for health emergency risk management including integration of disease outbreaks.  
• Development of Health Emergency and Disaster Risk Management Framework under auspices of Global Emergency Management Team.  
• WHO Strategic Framework for Emergency Preparedness  
• WHO input to the planning and organization of the International Conference on Implementation of the Health Aspects of the Sendai Framework for DRR which was held in Bangkok in March 2016.  
• WHO technical support to multisectoral DRR assessment, planning and training through the CADRI Partnership: WHO Executive Board member of the CADRI Partnership. Active participation at WCO, Regional and Global levels  
• Guidance, planning and technical support to countries for integration of Health EDRM and UHC/health systems strengthening and contributions to papers on UHC, health security and health system resilience  
• UHC Joint Working Teams has been established to coordinate cross-Programme technical support and monitoring for UHC across the three levels of the Organization, that includes FCV contexts and DRR.  
• Regional strategies:  
  - PAHO: DRR is explicitly reflected in PAHO’s Strategic Plan 2014-2019, with one Outcome level result (Outcome 5.6) specifically for DRR, titled, “Countries have an all-hazards health emergency and disaster risk reduction program for a disaster resilient health sector”. In 2016, PAHO Directing |
<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Council passed Resolution CD55.R10 on the Plan of Action for Disaster Risk Reduction 2016-2021. The purpose of this Plan of Action is to continue strengthening DRR to prevent death, disease, disability, and the psychosocial impact resulting from emergencies and disasters. The Plan of Action has these cross-cutting themes: multi-hazard approach; a gender, equity, ethnic group, human rights, and disability approach - WPRO &amp; SEARO. Asia Pacific Strategy for Emerging Diseases (APSED): framework for promoting individual and collective action by Member States and partners, mobilizing resources, developing capacities to deal with a variety of public health emergencies. The APSED evaluation confirmed that the strategy remains relevant to developing capacities to deal with a variety of public health emergencies, using a generic and step-by-step approach. Together with other mechanisms, APSED has made significant contributions to collective health security - EMRO regional plan towards IHR capacity strengthening developed and implemented. Advocacy activities to raise awareness of and increase political commitment to the core capacity requirements for the IHR. A regional report and a profile for each country developed on the progress in IHR implementation. - WPRO: Continued implementation of the Regional Framework on Disaster Risk Management for Health. - The WHO Special Initiative on Climate Change and Health in Small Island Developing States (SIDS) was launched in November 2017 by WHO in partnership with the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) and the Government of Fiji, as President of the 23rd Conference of the Parties to the UNFCCC. To implement this SIDS Initiative, WHO consulted the Pacific island countries and areas (PICs) and developed the Pacific Islands Action Plan on Climate Change and Health in Nadi, Fiji in March 2018. The Pacific Islands Action Plan was launched by the Pacific health leaders attending at the World Health Assembly in May 2018. This Action Plan presents the short-term and long-term action items and indicators of four strategic lines of action: (1) Empowerment; (2) Evidence; (3) Implementation; and (4) Resources. - AFRO: Continued implementation of the African Regional Strategy for Disaster Risk Management - SEARO: Continued implementation of regional strategies for emergency preparedness and response. - Support provided for the development of costed multisectoral national action plans for health security based on assessments of country capacities and support the matching of resources to fill critical core capacity gaps</td>
<td></td>
</tr>
<tr>
<td>Key words</td>
<td>Summary</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| • National Bridging workshops have taken place to review the coordination and collaboration between the human and animal health sectors, which have been the basis of planning to strengthen prevention, detection and response at the interface  
• WHO inputs and agreement to the UN System Plan of Action on Disaster Risk Reduction for Resilience through WHO representation on the Senior Leadership Group and UN Focal Points Group  
• Health emergency and disaster risk management included on the WHO Action Agenda on climate and health and the Global Climate and Health Conference in Paris  
• Tripartite coordination between WHO, the World Organisation for Animal Health (OIE) and the Food and Agriculture Organization of the United Nations (FAO) and UN Environment  
• Promoting health sector engagement in sound chemicals management through the development and implementation of the Road map to enhance health sector engagement in the strategic approach to international chemicals management towards the 2020 goal and beyond, which was approved by WHA 70.71 The road map identifies actions where the health sector has either a lead or important supporting role to play, recognizing the need for multi-sectoral and multi-stakeholder cooperation. These actions are organized into four areas: risk reduction; knowledge and evidence; institutional capacity; and, leadership and coordination. Actions include establishing/strengthening core capacities for chemical incident and emergency preparedness, detection and response, and establishing/strengthening poisons centres  
• WHO is a leader the IASC Task Team on the Humanitarian-Development Peace Nexus and by driving the discussion to meet needs while ending vulnerabilities |

| capacity assessments | • Capacity assessments & national planning: WHO supported the development of costed multisectoral national action plans for managing risks of emergencies based on assessments of country capacities and support the matching of resources to fill critical core capacity gaps, including technical support to conduct IHR core capacity assessments and develop IHR national implementation plans  
• Countries have conducted IHR core capacity assessments and developed IHR national implementation plans  
• As WHO Executive Board member of the CADRI Partnership, WHO supported to multisectoral DRR assessment, planning and training through the CADRI Partnership  
• IHR-PVS National Bridging workshops to review the coordination and collaboration between the human and animal health sectors, which have been the basis of planning to strengthen prevention, detection and response at the interface |

71 WHO Chemicals Road Map: https://www.who.int/publications/i/item/WHO-FWC-PHE-EPE-17.03
<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
</table>
| WHO provided technical assistance to coordinate and support the process of voluntary independent multisectoral evaluation of country core capacities, (including at the human animal interface) and implementation of the International Health Regulations (2005) through independent Joint External Evaluations | WHO guidance in Regulations for the Transport of Infectious substances CPI  
Laboratory Quality Stepwise Implementation tool to comply with ISO 15189 issued + 3 videos produce Laboratory Quality Management systems. Basics online course developed  
Better Labs for Better Health initiative created a mentor pool comprising laboratory quality specialists capable of providing on-site and remote mentoring to laboratories moving towards ISO accreditation,  
Training on event management in aviation developed and rolled out & POE staff trained to issue ship sanitation certificates  
Online refresher course “infectious substances shipping training” rolled-out  
Under APSED III the following has been improved in countries in the WPR: Biosafety & biosecurity strengthened, Laboratory quality enhanced, Specimen referral strengthened, Testing capabilities improved, National policy and strategic planning for laboratory services, Continuing participation in regional & global EQA with satisfactory results, Domestic EQA programs developed or expanded, Developing national mechanisms for licensing & accreditation, participating in international accreditation programs, Strengthened data sharing with surveillance programs & databases for priority EIDs and AMR and Strengthened lab information system, including WHONET training |
| Strengthening of all-hazards approach in the revision of to the IHR Joint External Evaluation and Annual Reporting Tools (SPAR) |  
Global and regional reports on country capacities for health emergency and disaster risk management were completed based on responses from 101 countries  
Implementation of Health Resource Availability Mapping System to document health service availability in emergency settings  
WHO Urban Health Initiative: The Urban Health Initiative aims to catalyze more effective urban action on air pollution and SLCPs – saving lives by linking health, environment and development decision-makers to forge policies that reduce short-lived climate pollutants[^2] |
| Global and regional reports on country capacities for health emergency and disaster risk management were completed based on responses from 101 countries |  
Implementation of Health Resource Availability Mapping System to document health service availability in emergency settings  
WHO Urban Health Initiative: The Urban Health Initiative aims to catalyze more effective urban action on air pollution and SLCPs – saving lives by linking health, environment and development decision-makers to forge policies that reduce short-lived climate pollutants[^2] |
| Health Resource Availability Mapping System to document health service availability in emergency settings |  
WHO Urban Health Initiative: The Urban Health Initiative aims to catalyze more effective urban action on air pollution and SLCPs – saving lives by linking health, environment and development decision-makers to forge policies that reduce short-lived climate pollutants[^2] |

[^2]: Implementing the Urban Health Initiative: https://www.who.int/activities/implementing-the-urban-health-initiative
<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Development of the urban health emergency preparedness initiative</td>
</tr>
<tr>
<td></td>
<td>• WHO Kobe Centre has provided technical support to Member States in various aspects of health emergency management for cities. Activities focus on how cities/urban areas could cope with disasters/emergencies through preparedness, policy development, capacity building, and innovations in response and best practice in health emergency management</td>
</tr>
<tr>
<td></td>
<td>• WHO in collaboration with UNO for South-South collaboration and UNDRR organized global trainings for policy makers and emergency managers on city and urban resilience in the post pandemic time</td>
</tr>
<tr>
<td></td>
<td>• WHO reports on the implementation of countries’ core capacity requirements under the IHR and the Sendai Framework for Disaster Risk Reduction 2015-2030.</td>
</tr>
<tr>
<td></td>
<td>• Revision of IHR Monitoring and Evaluation Framework towards independent evaluations and real-time exercises, while moving away from self-assessments only. The six WHO regional offices were actively involved with the Secretariat in shaping this new approach (JEE development) GCR</td>
</tr>
<tr>
<td></td>
<td>• States Parties submitted their completed IHR Monitoring questionnaire. IHR Stakeholders meeting to review the implementation of the IHR are regularly taking place at Regional level.</td>
</tr>
<tr>
<td></td>
<td>• Global and regional reports on country capacities for health emergency and disaster risk management were completed based on responses from 101 countries (unpublished)</td>
</tr>
<tr>
<td></td>
<td>• PAHO monitors progress in implementation of the Sendai Framework and the UN Plan of Action for Disaster Risk Reduction to achieve the different target and to identify gaps in implementation through the evaluation of implementation of the PAHO Plan of Action for Disaster Risk Reduction 2016-2021. The purpose of monitoring the implementation progress for the Disaster Risk Reduction Plan of Action 2016-2021 is to recognize achievements and identify opportunities for improvement in order to reach the expected results. An important accountability component of the monitoring and evaluation process is the submission of reports to the Governing Bodies of the Pan American Health Organization and its Member States. Responsible parties in the monitoring process are the Health Disaster Coordinators at the Ministries of Health in each country with the support of PAHO.</td>
</tr>
<tr>
<td></td>
<td>• The monitoring process for the Plan complies with the framework established in the Action Plan for Disaster Risk Reduction 2016-2021, as well as with its management, performance and evaluation processes. Three follow-up assessments will be done per year, and annual progress reports will be prepared. In addition, a specific evaluation will be carried out at the end of each biennium: 2016-2017, 2018-2019 and a final report and evaluation will be done at the end of 2022.</td>
</tr>
<tr>
<td></td>
<td>• Inclusion of Sendai Framework indicators in the 13th General Program of Work and the WHO Global Reference List of 100 Core Health Indicators (plus health-related SDGs)</td>
</tr>
<tr>
<td>Key words</td>
<td>Summary</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>sectoral/multisectoral coordination mechanisms, organization structures</td>
<td>• Collecting, consolidating, analyzing and disseminating immunization programme performance and vaccine-preventable disease data</td>
</tr>
<tr>
<td>(national, local)</td>
<td>• National Bridging workshops took place in 2017 to review the coordination and collaboration between the human and animal health sectors, which have been the basis of planning to strengthen prevention, detection and response at the interface</td>
</tr>
<tr>
<td></td>
<td>• WHO participation in Global Platforms and international conferences and support provided to the Regional Offices for Regional Platforms</td>
</tr>
<tr>
<td></td>
<td>• WHO Health Emergency and Disaster Risk Management Platform and meetings of the WHO Health EDRM Research Network established</td>
</tr>
<tr>
<td></td>
<td>• Strengthening of Health cluster coordination mechanisms</td>
</tr>
<tr>
<td></td>
<td>• Supported countries with the establishment of EOCs based on IMS principles for emergency operation management</td>
</tr>
<tr>
<td>community participation/consultation</td>
<td>• WHO action on health risk communication in emergencies including EPI_WIN and rapid transfer of knowledge on public health crisis to field responders through the creation of Open WHO, an online training platform</td>
</tr>
<tr>
<td>global, regional, sub-regional, national platforms</td>
<td>• EMRO is a member of the Arab Coordination Mechanism for DRR (ACMDRR) with the UNISDR and Arab league. The coordination mechanism developed (Arab Strategy for Disaster Risk Reduction 2030) and its (Work Programme of the Arab Strategy for Disaster Risk Reduction 2030) EMRO</td>
</tr>
<tr>
<td></td>
<td>• AFRO participation and advocacy for health disaster risk management in regional platforms for Africa.</td>
</tr>
<tr>
<td></td>
<td>• Since 2008, PAHO and UNDRR have had an ongoing Letter of Understanding for collaboration in the Americas in order to reduce social and health impact of disasters. Areas of cooperation include joint technical publications, reviews, networking and information management.</td>
</tr>
<tr>
<td></td>
<td>• PAHO has collaborated with the UNISDR secretariat on planning and organization of Regional Platform for Disaster Risk Reduction in the Americas 2018</td>
</tr>
<tr>
<td></td>
<td>- EURO participated in the European Forums for Disaster Risk Reduction including profiling of health in the meeting in Helsinki in 2017</td>
</tr>
<tr>
<td></td>
<td>- SEARO organized sessions on health at the Asia Ministerial Conference for Disaster Risk Reduction</td>
</tr>
<tr>
<td></td>
<td>- WPRO has participated in the Pacific disaster risk management forums in Suva and the Asian Ministerial Conferences and the ASEAN Project for Strengthening the ASEAN Regional Capacity on Disaster Health Management (ARCH Project)</td>
</tr>
<tr>
<td>Key words</td>
<td>Summary</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td>WHO participation in interagency working group for industrial accidents (other members include: UNEP/OCHA JEU, OECD, OPCW, EC DG Environment, UNISDR)</td>
<td></td>
</tr>
</tbody>
</table>
- Member of and secretariat to Inter-Organization Programme for the Sound Management of Chemicals (IOMC), which brings together 9 IGOs actively involved in chemical safety (FAO, ILO, UNDP, UNEP, UNIDO, UNITAR, WHO, World Bank and OECD). The objective of the IOMC is to strengthen international cooperation in the field of chemicals and to increase the effectiveness of the organizations’ international chemicals programmes. 
- IOMC promotes coordination of policies and activities, pursued jointly or separately, to achieve the sound management of chemicals in relation to human health and the environment. Joint activities include the IOMC Toolbox (see below), facilitating access to information on chemicals through the archesporial (www.echemportal.org) and supporting countries to implement multilateral environmental agreements on chemicals (e.g. Minamata Convention on mercury, Basel Convention on transboundary movement of hazardous waste) and the Strategic Approach to International Chemicals Management (SAICM) PHE Chem.  
- WHO participation in OECD Working Group on Chemical Accidents (chemical accident prevention, preparedness and response) 
- WHO participation in GHSAG Chemical Event Working Group |
| thematic platforms (e.g. health) | 
- WHO Thematic Platform for Health Emergency and Disaster Risk Management Platform established in 2009. Reports to previous global platforms, organized activities at WCDRR and Global Platforms, 
- Establishment of WHO Health EDRM Research Network hosted by WHO Centre for Health Development in Kobe.  
- Publication of guidance on research methods, webinars, knowledge hub established, research grants provided for Health EDRM and ongoing efforts to develop research agenda |
| regional/global disaster risk assessment, risk | 
- Refer to risk assessment in Priority 1. |

73 International efforts for industrial and chemical accidents prevention, preparedness and response: [https://issuu.com/oecd.publishing/docs/brochure_chemical_accidents_prevent](https://issuu.com/oecd.publishing/docs/brochure_chemical_accidents_prevent)
74 Inter-Organization Programme for the Sound Management of Chemicals (IOMC): [https://partnership.who.int/iomc](https://partnership.who.int/iomc)
<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
</table>
| monitoring (link to Priority 1)                                           | • WHO facilitates regional and sub-regional action to manage risks of emergencies including regional policies and frameworks (all WHO ROs) cross-boundary risk assessments, capacity development including training workshops for multiple countries, guidance development, operational planning, monitoring and evaluation at regional and sub-regional levels. (All WHE departments)  
  • This includes, for example, WPRO supports to Mekong countries on cross-border surveillance, preparedness and response, and Pacific Island country meeting including adapted strategies from DRM-H for the small island context including the impact of climate change |
| transboundary: planning, capacity development, information systems        |                                                                                                                                                                                                       |
| international collaboration: epidemic, displacement risk                  | • As the UN lead agency for health, WHO facilitates international collaboration on health emergencies across the prevention, preparedness, response and recovery; leadership and advocacy; risk assessments; leadership, facilitation and participation of many partnerships; capacity development; and through global and regional monitoring, reporting and evaluation. (WHO)  
  • WHO provided health inputs to the development of the Global Compact on Migration, and to the assessment, planning, preparedness and response to health aspects of migration and displacement across the world |
| peer reviews                                                              | • independent Joint External Evaluations and Universal Health and Preparedness reviews.                                                                                                                |
Appendix C: Progress in Investment in Risk Reduction and Resilience

<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>coherence - sustainable development and DRR policies in all sectors</td>
<td>• Integration of Disaster Risk Management with SDGs, Climate and other global policies and strategies</td>
</tr>
<tr>
<td></td>
<td>• Health emergency and disaster risk management incorporated in WHO policies and plans including PHC frameworks, Workforce 2030 Strategy and Competency Framework for UHC</td>
</tr>
<tr>
<td></td>
<td>• Inputs on health emergency and disaster risk management to Health Systems cluster guidelines</td>
</tr>
<tr>
<td></td>
<td>• Inclusion of SDG/ Sendai Targets in GPW and in WHO Global Reference List of 100 Core Health Indicators (plus health-related SDGs)</td>
</tr>
<tr>
<td></td>
<td>• DRM and climate: Health emergency and disaster risk management included on the WHO Action Agenda on climate and health and the Global Climate and Health Conference in Paris.</td>
</tr>
<tr>
<td></td>
<td>• Revised and new Fact Sheets on Health Emergency and Disaster Risk Management with WHO Departments and partners including climate</td>
</tr>
<tr>
<td></td>
<td>• WHO support to multisectoral DRR assessment, planning and training through the CADRI Partnership</td>
</tr>
<tr>
<td></td>
<td>• Safe hospitals incorporated in the interdepartmental Hospitals in the 21st Century Project focused on the WHO portal/webpage on hospitals</td>
</tr>
<tr>
<td></td>
<td>• Since March 2011, PAHO has been supporting selected countries to implement the Smart Hospitals Initiative that integrates climate change and DRR considerations in the health sector. This initiative seeks incorporation of the most feasible climate-smart and safety standards in health facilities to improve their resilience and reduce their impact on the environment. A hospital is considered “smart” when it links structural and operational safety with green interventions, at a reasonable cost-benefit ratio. Enhanced safety standards, a reduction in down time and damage to hospitals from natural hazards as well as operating expenditures in terms of water and energy savings are expected. This is in line with the recommendations on the Strategic Approach on Climate Change specifically, to scale up action in transformative initiatives relating to climate information, early warning and preparedness, water management and resilient cities and infrastructure, with joint capacity building for risk-informed development warranting special attention.</td>
</tr>
<tr>
<td></td>
<td>• WHO inputs and agreement to the UN System Plan of Action on Disaster Risk Reduction for Resilience through WHO representation on the Senior Leadership Group and UN Focal Points Group</td>
</tr>
<tr>
<td></td>
<td>• WHO has improved preparedness against pandemic influenza the PIP High Level Implementation Plan</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
</table>
| • The sound management of chemicals and waste is important to the achievement of all of the SDGs.  
• Supporting updated WHO immunization policies and position papers around using vaccines in emergencies  
• Developing strategies and guidance to enhance availability and affordability of vaccines at risk (including those to respond to outbreaks) and best practices in vaccine management  
• Developing and implementing special vaccination strategies in outbreak settings, humanitarian emergency or conflicted areas IVB EPI | DRR in policies, plans, programming within and across all sectors  
• WHO provides technical support for development of country operational plans was provided in order to support countries to adopt an all-hazard multisectoral approach in their national planning for health emergency management.  
• WPRO has supported countries with development of multi-sectoral legislation or policies for DRM, with MoH engaged with input from the health sector. Most of the countries have a National DRM-H or Health Security plans which is a strong improvement over the last few years  
• In 2016, PAHO Directing Council passed Resolution CD55.R10 on the Plan of Action for Disaster Risk Reduction 2016-2021. The purpose of this Plan of Action is to continue strengthening DRR to prevent death, disease, disability, and the psychosocial impact resulting from emergencies and disasters. The Plan of Action has these cross-cutting themes: multi-hazard approach; a gender, equity, ethnic group, human rights, and disability approach  
• PAHO is providing technical cooperation to countries in the Region of the Americas to implement Target E in the Health Sector. This support is being provided within the framework of the aforementioned Strategic Plan, Program and Budget and Plan of Action, which have all been approved and agreed to by PAHO Member States. The indicators for these documents as listed in question #1 above are fully aligned with Targets E-1 and E-2. PAHO supports countries to undertake formal assessments of the health sector’s vulnerabilities to disasters; to develop plans and procedures for emergency and disaster response and early recovery, and to test their effectiveness; to assign full-time staff to be responsible for DRR in the health sector; and to establish coordination mechanisms in the health sector to be responsible for implementation and monitoring of disaster risk management for health  
• In the Western Pacific Region, the Asia Pacific Strategy for Emerging Diseases (APSED) has proved to be an effective framework for promoting individual and collective action by Member States and partners |

---

<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>and for mobilizing resources. The APSED evaluation confirmed that the</td>
<td>strategy remains relevant to developing capacities to deal with a variety of public health emergencies, using a generic and step-by-</td>
</tr>
<tr>
<td>strategy remains relevant to developing capacities to deal with a variety</td>
<td>step approach. Together with other mechanisms, APSED has made significant contributions to collective health security.</td>
</tr>
<tr>
<td>of public health emergencies, using a generic and step-by-step approach.</td>
<td>• WHO supports the development of costed multisectoral national action plans for managing risks of emergencies based on assessments of</td>
</tr>
<tr>
<td>Together with other mechanisms, APSED has made significant contributions</td>
<td>country capacities and support the matching of resources to fill critical core capacity gaps</td>
</tr>
<tr>
<td>to collective health security.</td>
<td>• WHO support to multisectoral DRR assessment, planning and training through the CADRI Partnership</td>
</tr>
<tr>
<td>financial protection, insurance, risk sharing mechanism, financial</td>
<td>• Strengthening of the integration of health emergencies and UHC to reduce financial burden on disaster affected people</td>
</tr>
<tr>
<td>instruments</td>
<td>• Technical advice for the development of the World Bank Pandemic Emergency Facility and the Pandemic Financial Intermediary Facility</td>
</tr>
<tr>
<td>structual, non-structural safety, functionality in critical facilities</td>
<td>• In WHO, financial resourcing for emergencies has been significantly strengthened over the past years, both through internal and external</td>
</tr>
<tr>
<td>(e.g. safe hospitals)</td>
<td>mechanisms.</td>
</tr>
<tr>
<td>financial protection, insurance, risk sharing mechanism, financial</td>
<td>• Publication of the Hospital Safety Index 2nd Edition (English); translation in Arabic, French, Russian, Spanish</td>
</tr>
<tr>
<td>instruments</td>
<td>• Training manual on Hospital Safety Index</td>
</tr>
<tr>
<td>structual, non-structural safety, functionality in critical facilities</td>
<td>• Safe hospitals incorporated in the interdepartmental Hospitals in the 21st Century Project focused on the WHO portal/webpage on</td>
</tr>
<tr>
<td>(e.g. safe hospitals)</td>
<td>hospitals</td>
</tr>
<tr>
<td>structural, non-structural safety, functionality in critical facilities</td>
<td>• Comprehensive Safe Hospital Framework</td>
</tr>
<tr>
<td>(e.g. safe hospitals)</td>
<td>• Based on the Comprehensive Safe Hospital Framework, WHO supported the implementation of the Safe Hospitals Initiative in countries</td>
</tr>
<tr>
<td>structural, non-structural safety, functionality in critical facilities</td>
<td>such as Federated States of Micronesia, Montenegro, Nepal, the Solomon Islands and Uzbekistan</td>
</tr>
<tr>
<td>(e.g. safe hospitals)</td>
<td>• In SEARO, the Regional Office has been supporting Member States in hospital safety assessment and strengthening. The Regional Office</td>
</tr>
<tr>
<td>structual, non-structural safety, functionality in critical facilities</td>
<td>has prepared a mobile phone based application for hospital safety assessment. (SEARO)</td>
</tr>
<tr>
<td>(e.g. safe hospitals)</td>
<td>• EMRO: Hospital Safety Index is an ongoing activity aiming to assess preparedness of health facilities in emergency context.</td>
</tr>
<tr>
<td>structual, non-structural safety, functionality in critical facilities</td>
<td>Hospital emergency training course has been developed in collaboration with Health Service Development, which provides specific</td>
</tr>
<tr>
<td>(e.g. safe hospitals)</td>
<td>training on handling emergency situation to health facility managers.</td>
</tr>
</tbody>
</table>
### Key words

| Summary |
|-----------------|-------------------------------------------------|
| • The Safe hospital Initiative has been implemented in WPR including Fiji, Tuvalu, FSM/Yap, Solomon Islands, Kiribati and the Philippines have developed and adapted the hospital safety index with self-assessment in hospitals in Metro Manila. Improving Hospital Planning and Management, which is currently under consultation. The framework outlines the importance of hospital safety and preparedness, including risk monitoring to remain operational in emergencies and disasters. The integration of Safe Hospitals is an excellent opportunity to reduce disaster risk on hospital services and to have resilient service delivery systems to respond to crises. |

### Resilience/safety of workplaces

| Summary |
|-----------------|-------------------------------------------------|
| • WHO and ILO collaboration on Occupational Safety and Health in Public Health Emergencies http://www.who.int/occupational_health/Web_OSH_manual.pdf?ua=1 |
| • Technical assistance for the Safe Hospitals programme to protect staff, patients and visitors from emergencies (as above) |
| • Technical assistance for Infection Prevention and Control Programmes which includes the protection of workers from health and other sectors from infectious diseases, illness and death |

### Disaster risk management for health

<p>| Summary |
|-----------------|-------------------------------------------------|
| • Refer to all other activities under the umbrella of disaster risk management for health or health emergency and disaster risk management towards the implementation of IHR 2005, SDGs and Sendai Framework for Disaster Risk Reduction 2015-2030. |
| • WHO provides technical support from country, regional and global levels to strengthen country capacities and linkages/integration of all-hazards health emergency and disaster risk management with health systems, other sectors and across health technical areas |
| • WHO Thematic Platform for health Emergency and Disaster Risk Management Platform meetings at the Global Platform and Platform Research Working Group is established |
| • WHO participation at the WCDRR, Global Platforms for DRR and supports provided to the Regional Offices for Regional Platforms |
| • Publication of revised and new Fact Sheets on Health Emergency and Disaster Risk Management with WHO Departments and partners |
| • Strengthening of all-hazards approach in the revision of to the IHR Joint External Evaluation and Annual Reporting Tools |
| • WHO input to the planning and organization of the International Conference on Implementation of the Health Aspects of the Sendai Framework for DRR which was held in Bangkok in March 2016 |</p>
<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
</table>
| community health groups | • Refer to Risk communication - EPIWIN and management of infodemic  
PAHO’s Plan of Action for Disaster Risk Reduction 2016-2021 integrates cross-cutting approaches such as people centered actions and a gender, equity, ethnicity, human rights, and disability approach. Strategic line 4 of the Plan of Action urges Member States to strengthen response capacity and early recovery from disasters in the health sector by dictating that plans should be participatory, inclusive and effective.  
• PAHO has developed a methodology named INGRID-H (Hospital Disaster Inclusive Risk Management) in response to the Regional Plan of Action for Disaster Risk Reduction 2016-2021 approved by Member States (and aligned to Sendai Framework), which incorporates Disability as a cross cutting theme. INGRID-H is an “action(plan)-evaluation (Index)” methodology to improve the level of preparedness for hospital response to emergency situations and disasters caused by any type of hazard with emphasis-but not limited-on persons with disabilities. INGRID-H is being applied in Ecuador and Mexico and will be implement it in at least 5 countries until May 2019.  
• The manual “Managing disaster risks in communities” was produced from EMRO focusing on promoting the role of primary health care (PHC) facilities in strengthening community participation in disaster risk DRR and helping the community to identify indicators of disaster risk and vulnerability. It provides guidance to assess the impact of disasters on social, economic and environmental conditions. The training also addresses the need to involve different stakeholders, ensuring that DRR is a local priority and sharing the local preparedness plan with the community with their defined responsibilities EMRO |
| resilience of health systems – primary, secondary, tertiary health care, local level | • Most activities included in these tables refer to building the resilience of health systems, including guidance on resilient health systems  
• Development of strategies and projects through stronger collaboration between health systems clusters and WHO Health emergencies programmes to integrate health system strengthening and health emergency risk management for UHC, health security and resilience.  
• Integration of health service resilience in IHR capacity tools, including JEE and SPAR.  
• Integration of health emergency preparedness and response into global and regional action on essential public health functions (e.g. EURO), including focus on fragile, conflict affected and vulnerable settings. |
<p>| International Health Regulations | • See above – International Health Regulations – governance, assessments, national planning, capacity development, monitoring and reporting |</p>
<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>access to basic health-care services: maternal, newborn, child health;</td>
<td>• WHO technical programmes technical guidance and assistance for capacity development, and reporting on maternal and newborn health; food security, nutrition; sexual and reproductive health; housing for emergency risk management including preparedness and response.</td>
</tr>
<tr>
<td>sexual &amp; reproductive health; food security &amp; nutrition; housing</td>
<td>• Publication of revised and new Fact Sheets on Health Emergency and Disaster Risk Management with WHO Departments and partners including 15 topics including child health, sexual and reproductive health, nutrition etc.</td>
</tr>
<tr>
<td></td>
<td>• Working to strengthen routine immunization systems and implementation support to achieve equitable and high coverage IVB EPI</td>
</tr>
<tr>
<td></td>
<td>• WPRO has supported countries with the development and delivery of an essential package of health services is a package of priority health services that can be provided during a crisis that focus on the priority risks to essential health services and interventions targeted at the top causes of morbidity and mortality.</td>
</tr>
<tr>
<td>people with life-threatening and chronic diseases (included in policy and</td>
<td>• Development of emergency health kits for non-communicable diseases, NMH &amp; EMO</td>
</tr>
<tr>
<td>planning); access to life-saving services</td>
<td>• Management of the Emergency Medical Teams Initiative and Global Outbreak Alert and Response Network, capacity development and registration of national teams</td>
</tr>
<tr>
<td></td>
<td>• Publication of revised and new Fact Sheets on Health Emergency and Disaster Risk Management with WHO Departments and partners including non-communicable diseases</td>
</tr>
<tr>
<td>social safety net</td>
<td>• Increased policy and technical assistance to address the integration of UHC and emergency risk management especially in fragile, conflict affected and vulnerable settings.</td>
</tr>
<tr>
<td>poverty &amp; hunger eradication; assistance to disproportionately affected/</td>
<td>• Technical guidance and assistance on assessing, reducing and managing malnutrition in emergencies (NUT)</td>
</tr>
<tr>
<td>most vulnerable; human mobility</td>
<td>• WHO provided health inputs to the development of the Global Compact on Migration, and to the assessment, planning, preparedness and response to health aspects of migration and displacement across the world.</td>
</tr>
<tr>
<td>resilient households, communities, livelihood protection</td>
<td>• Development of Health and Housing guidelines recognizes emergencies as a key issue.</td>
</tr>
<tr>
<td></td>
<td>• Reference to linkages between UHC and health emergencies to protect livelihoods</td>
</tr>
<tr>
<td>environmental/ natural resource management</td>
<td>• WHO policy, technical guidance and assistance through the Public Health and Environment department</td>
</tr>
<tr>
<td></td>
<td>• Collaboration between WHO and WMO to establish and support the Joint WHO-WMO Office for Climate and Health</td>
</tr>
<tr>
<td>Key words</td>
<td>Summary</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td>Collaboration on technical guidance and implementation of climate-related projects including guidance on climate resilient health systems, emergency preparedness, Smart Hospitals, disease early warning systems, extreme weather events, ENSO, and the Global Framework for Climate Services</td>
<td>• WHO supports countries and local partners to develop business continuity and contingency plans to address specific hazards and risks.</td>
</tr>
<tr>
<td>The WHO Special Initiative on Climate Change and Health in Small Island Developing States (SIDS)</td>
<td>• Guidance for contingency planning, business continuity planning, and readiness checklist developed/updated for implementation at country level.</td>
</tr>
<tr>
<td>WHO supports countries and local partners to develop business continuity and contingency plans to address specific hazards and risks.</td>
<td>• WCOs have developed or reviewed their business continuity plans and emergency response plans during the biennium.</td>
</tr>
<tr>
<td>WHO supports countries and local partners to develop business continuity and contingency plans to address specific hazards and risks.</td>
<td>• Guidance for contingency planning, business continuity planning, and readiness checklist developed/updated for implementation at country level.</td>
</tr>
<tr>
<td>WHO supports countries and local partners to develop business continuity and contingency plans to address specific hazards and risks.</td>
<td>• WCOs have developed or reviewed their business continuity plans and emergency response plans during the biennium.</td>
</tr>
</tbody>
</table>
Appendix D: Progress in Disaster Preparedness, Response and ‘Build back Better’

<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
</table>
| disaster preparedness, contingency plans (local, national, regional, international) | • WHO provides technical assistance to countries, partners (and to WHO offices) for emergency preparedness & operational readiness: technical guidance & assistance for risk assessment; capacity assessments; multihazard response planning; contingency planning; business continuity planning, training, exercises.  
 • WHO Strategic Framework for Emergency Preparedness  
 • Operational readiness: checklist development, implemented at country level; countries have developed or reviewed their business continuity plans and emergency response plans during the biennium.  
 • Countries offices have participated in the process of the development and finalization of the readiness checklist and the second edition of the Emergency Response Framework. The three-level readiness checklists were developed in draft through an Organization-wide peer review; the development of the data entry tool and automated analyses.  
 • A generic template for national emergency response, along with a set of standard operating procedures to support country-level planning processes, contingency planning for COVID-19, Ebola virus and other diseases.  
 • Training programs in all regions at regional and country levels, e.g.:  
  - Specialized training and exercises for public health measures for mass gathering events;  
  - National public health and emergency management training programmes were carried out in EURO (health and ministries responsible for emergency preparedness and response).  
  - In WPRO, disaster risk management focal points attended trainings on the surge mechanism and health cluster coordination, country office readiness for emergency response  
  - In AMRO, countries participated in a regional training on health disaster response and coordination, business continuity plans, regional surge capacity ad PAHO’s Institutional Response to Emergencies and Disasters  
 • WHO provide technical support to low capacity countries for emergency preparedness, including strengthening capacities for early detection of and timely and effective response to all-hazards health emergencies (such as national health emergency operations centres, early warning and response, laboratories, points of entry, rapid response teams, training, safe hospitals).  
 • STAR Toolkit was developed and rolled out |
<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
</table>
| • The Planning Checklist for WCO Readiness was finalized with regional and all concerned technical units’ inputs  
• Participation in the IASC emergency preparedness working group to ensure that multi sectoral guidance appropriately includes health sector aspect of preparedness and operational readiness, including participation in several interagency missions, and WHO guidance is aligned  
• Exercise simulations to update and test plans have been conducted across all regions  
• The WHO Task Force for Operational Readiness was established to provide optimum guidance to the countries, WHO and partners in scaling up operational readiness.  
• WHO has put in place global mechanisms for preparedness for major epidemics and pandemics, including in the following areas: research, clinical care, laboratory (Emerging and Dangerous Pathogens Laboratory Network), clinical (Emerging Disease Clinical Assessment and Response Network), and infection prevention and control (Global Infection Prevention and Control Network), within the Global Outbreak Alert and Response Network (GOARN) | • Tripartite coordination between WHO, the World Organisation for Animal Health (OIE) and the Food and Agriculture Organization of the United Nations (FAO) has been established.  
• Monitor and report on the implementation of temporary recommendations issued by the WHO Director-General following the declaration of a public health emergency of international concern under the IHR.  
• Advice on relevant IHR provisions was provided and monitoring conducted with regard to the application by States Parties of additional measures during public health events and emergencies.  
• Advice on the interpretation of the IHR was provided on an as needed basis through consultation with WHO regional offices and a number of States Parties, including in relation to public health events  
• Workshops were organized in the regions to facilitate national dialogue across different disciplines, in particular on biorisk management and infectious substances health security at points of entry and border crossings capacity risk communications, IHR and coordination mechanisms. Table-top exercises to simulate multistakeholder coordination, cooperation and information exchange in the context of a public health emergency were also organized |
<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>As the Health Cluster lead agency, WHO continued to build capacity to ensure that effective partner coordination mechanisms are in place for all graded and protracted events at national and subnational levels.</td>
<td></td>
</tr>
<tr>
<td>More emphasis was also given to building the capacities of national governments and partners such as through EOC-Net capacity development, workforce and Emergency Medical Teams (EMTs).</td>
<td></td>
</tr>
<tr>
<td>The role of WHO in the coordination of the response to emergencies with health consequences has been strengthened through the intensification and rationalization of the activities of the networks and partnerships (GHC, GOARN, EMT, SBP).</td>
<td></td>
</tr>
<tr>
<td>The GOARN operational support team (OST) provides assistance for coordination at WHO/HQ of graded and ungraded events, risk assessment activities, and response activities when events are graded.</td>
<td></td>
</tr>
<tr>
<td>At HQ, the Emergency Medical Teams initiatives has been running for many years and deployed in many emergencies. Activities have intensified, including the development of a mentorship and verification programme for internationally deployable EMTs and training courses</td>
<td></td>
</tr>
<tr>
<td>To address the top priority of strengthening and streamlining the end-to-end management of acute events, WHO has boosted its capacities to manage technical and operational support for acute events and emergencies; and coordinate the support of relevant WHO HQ departments and partners.</td>
<td></td>
</tr>
<tr>
<td>The Revised Emergency Response Framework 2nd Edition, which outlines the Organization’s approach to risk assessment, grading and response management using the IMS, is now followed to manage all graded events</td>
<td></td>
</tr>
<tr>
<td>WHO has developed high priority pathogens strategies (cholera, yellow fever, MERS-CoV) resulting in more effective partnerships and increased access to medical countermeasures when available</td>
<td></td>
</tr>
<tr>
<td>WHO has supported and coordinated health emergency responses to a rising number of epidemics of emerging and re-emerging infectious diseases (COVID-19, Ebola, yellow fever, cholera, Zika, influenza, MERS-CoV, meningitis, VHF, plague, monkeypox, etc.)</td>
<td></td>
</tr>
<tr>
<td>General technical support to countries to respond to a variety of chemical and radiological events. Number of events varies from year to year. Support from WHO HQ is channeled through WHO regional offices</td>
<td></td>
</tr>
<tr>
<td>Key words</td>
<td>Summary</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| multihazard early warning system, hazard monitoring, climate             | • Development of Early Warning and Response capabilities for capacity development and operational response, including the EWARS-in-a-box initiative 3  
• Health components in the IASC Interagency SOPs for ENSO episodes       
• WHO HQ support to health sector response to the 2016 El Nino event with global reporting, advocacy and support to countries affected |
| resilience of critical infrastructure; hospitals, health facilities, water, transportation, telecommunications | • Refer to safe hospitals and other sections above                                                                                                                                                    |
| public awareness – preparedness and response                              | • Technical assistance: Risk communication: EPI-WIN, technical guidance, risk communication workshops and exercises, joint assessments for health sector, and media training.   |
| stockpiling, essential supplies, logistical capacities,                  | • OSL Health Logistics Operations network bring together logisticians, and procurement, administrative and operations officers from across the Organization Specific achievements include the completion of emergency supply chain design initiative, the development of SOPs for supply operations, medical and laboratory equipment, as well as operational guidance and tools, and training and evaluation tools, development of Disease Commodity Packages  
• In terms of health supplies and operational logistics, participation in the United Nations Humanitarian Response Depot network  
• As part of regional preparedness, the regional stockpile of antivirals and personal protective equipment are maintained for deployment, and simulation exercises were carried out.  
• Development and implementation of specific trainings for health logisticians in the WHO COs and MoH in DRC, and logistics training and support with GOARN courses  
• WHO has supported Member States with prepositioning of minimum critical medical supplies and equipment at the national and sub-national levels. At the Regional level, the Regional Stockpile is accessible and its staff on standby to provide immediate logistics support. Goods stored at the Regional Stockpile range from emergency health kits, transport solutions, WASH items and staff support equipment. The Regional Stockpile stores appropriate emergency goods at appropriate levels Manila to the affected population. The Regional level also maintains contact and updates from global stockpiles and partners with emergency stocks. |
### Key words

<table>
<thead>
<tr>
<th>Summary</th>
</tr>
</thead>
</table>
| • WHO supported the MOH to stockpile and pre-position antibiotics, vaccines and laboratory reagents, and other medical supplies  
• The Standardized Assessment of Rehabilitation Systems includes the stockpiling of assistive products in disaster-prone countries/areas within its tools, and promotes it as a preparatory action in national strategic plans for rehabilitation.  
• WHO has ensured the coordination of the implementation of the PIP Framework and has been working in partnership with industry and other stakeholders to ensure equitable sharing of vaccines and benefits and improve resilience and preparedness for pandemic influenza.  
• Global immunization supply and supply-chain intelligence collected, analysed and shared with national, regional and international stakeholders (strategies for better response)  
• WHO – EMRO: Implementation guide for health systems recovery in emergencies: transforming challenges into opportunities (2020)  
• Development and roll-out of WHO guidance such as:  
  - Building health systems resilience for universal health coverage and health security during the COVID-19 pandemic and beyond: WHO position paper which puts focus on Health EDRM  
  - WHO Manifesto for a healthy recovery from COVID-19 |

---


79 Building health systems resilience for universal health coverage and health security during the COVID-19 pandemic and beyond: WHO position paper: http://apps.who.int/iris/handle/10665/346515

<table>
<thead>
<tr>
<th>Key words</th>
<th>Summary</th>
</tr>
</thead>
</table>
| • Provide technical inputs to Post Disaster Needs Assessment guidance and tools which included a focus on reducing risk of future disasters  
• Regional offices have led the participation in the post-disaster needs assessments and planning for recovery, including technical support, in cooperation with the ministries of health, for developing recovery plans and strategies following disasters due to natural hazards in the countries, such as the Philippines, Colombia, Haiti, Serbia and Nepal.  
• Publication of minimum standards for emergency medical teams and rehabilitation through the Disability and Rehabilitation  
• Technical assistance provided for health systems recovery in countries affected by Ebola in and COVID-19  
• As member of the International Recovery Platform, WHO through the WHO Kobe Centre, has provided technical inputs to IRP guidance and to IRP forums for recovery in general and for COVID-19 specifically  
• Facilitated and participates in multisectoral training for Post Disaster Needs Assessment (PDNA) including courses on the Analysis of Disrupted Health  
• Technical guidance and assistance for psychosocial support and mental health services in emergencies  |

81 training for response, workforce, volunteers  

| • Rapid transfer of knowledge on public health crisis to field responders through the creation of OpenWHO, an online training platform  
• Integration of Health EDRM in WHO Global Competency Framework for UHC and Workforce 2030 Strategy  
• Mass casualty management planning and training, including all partners, were carried out in countries  
• Training and technical assistance to organisers of mass gathering events, including Olympic Games and other high profile sports events, Haj and other pilgrim events etc., Guidance and measures were developed by headquarters, and deployed and tested with the support of the Regional Offices  

Ensuring a coordinated and effective mental health response in emergencies: [https://www.who.int/mental_health/emergencies/en/](https://www.who.int/mental_health/emergencies/en/)
### Summary

<table>
<thead>
<tr>
<th>Key words</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A Global Curriculum Framework Focused on Ministry of Health Staff in Management Roles for Emergency and Disaster Risk Management for Health including emergency preparedness and response</td>
<td>Training programmes at regional and country level for emergency response and surge training courses across WHO regions</td>
</tr>
<tr>
<td></td>
<td>Training health staff and stockpiling PPE and medical countermeasures for preparedness and response to the deliberate release of chemicals</td>
</tr>
<tr>
<td></td>
<td>Training related to transport and tourism, points of entry, rapid response teams, Emergency Medical Teams</td>
</tr>
<tr>
<td></td>
<td>More emphasis was also given to building the capacities of national governments and partners such as through EOC-Net capacity development, workforce and Emergency Medical Teams (EMTs)</td>
</tr>
<tr>
<td></td>
<td>Progress on development of tiered training for the IMS in WHO</td>
</tr>
<tr>
<td></td>
<td>GOARN network and programme of outbreak response training has been delivered</td>
</tr>
<tr>
<td></td>
<td>Training tool and EMT coordination courses</td>
</tr>
<tr>
<td></td>
<td>Regional Surge Training Workshops, incorporating multi-hazard preparedness, and response and recovery plans for country offices, health cluster coordination guidelines and the Emergency Response Framework</td>
</tr>
<tr>
<td>resilience of health system (in recovery), continuity of services</td>
<td>Refer to business continuity and recovery above</td>
</tr>
<tr>
<td>training, exercises, drills</td>
<td>WHO produces guidance and provides technical assistance for capacity development and management of exercises with Member States, UN agencies, partners and within WHO organization</td>
</tr>
<tr>
<td></td>
<td>Table-top exercises to simulate multistakeholder coordination, cooperation and information exchange in the context of a public health emergency were organized across all regions with a wide range of objectives and scenarios.</td>
</tr>
<tr>
<td></td>
<td>All regions conducted simulation exercises to test the readiness of WHO COs and local partners. WHO Country Offices have updated and implemented plans to enhance operational readiness</td>
</tr>
<tr>
<td></td>
<td>WHO also assisted with intergovernmental and interagency health emergency exercises</td>
</tr>
<tr>
<td>Key words</td>
<td>Summary</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| psychosocial support, mental health services | • Publication of note: Linking DRR and Mental Health and Psychosocial Support (MHPSS) - Practical tools, approaches and case studies82  
• Numerous technical guidance and support for policies and operational preparedness and response to psychosocial effects of emergencies83  
• Building Back Better Sustainable Mental Health Care following emergencies.84 This WHO publication shows how this was done in 10 diverse emergency-affected areas. This is important because mental health is crucial to the overall well-being, functioning, and resilience of individuals, societies, and countries recovering from emergencies.  
• Publication of revised Fact Sheets on Health Emergency and Disaster Risk Management with WHO Departments and partners  
• WHO is co-chair of the IASC Reference Group for Mental Health and Psychosocial Support in Emergency Settings, that was established in 2007. In 2017 a thematic working group dedicated for DRR and Mental Health and Psychosocial Support was established as part of the Reference Group with a mandate of developing an Interagency Action Sheet of the IASC MHPSS guidelines with focus on DRR and MHPSS85 |

---

82 Technical note: Linking Disaster Risk Reduction (DRR) and Mental Health and Psychosocial Support (MHPSS) - Practical tools, approaches and case studies: https://reliefweb.int/report/world/technical-note-linking-disaster-risk-reduction-drr-and-mental-health-and-psychosocial
83 Ensuring a coordinated and effective mental health response in emergencies: http://www.who.int/mental_health/emergencies/en/
84 BUILDING BACK BETTER: Sustainable mental health care after emergencies: https://www.who.int/mental_health/emergencies/building_back_better/en/
Appendix E: Collaborative Partnerships – UN Agencies

- DESA - Department of Economic and Social Affairs (SDGs)
- Economic Commissions (e.g. economic assessments)
- FAO - Food and Agriculture Organization of the United Nations (One Health, ENSO, zoonotic diseases, food security and malnutrition)
- IAEA - International Atomic Energy Agency (radiological emergencies)
- ICAO - International Civil Aviation Organization (emergency preparedness, IHR)
- ILO - International Labour Organization (occupational health and safety)
- IOM - International Organization for Migration (migration, displacement)
- OCHA - United Nations Office for the Coordination of Humanitarian Affairs (emergency preparedness, response)
- OHCHR - United Nations Human Rights Office of the High Commissioner (equitable access to health care)
- UNDP - United Nations Development Programme (humanitarian development nexusHDN, climate change, CADRI Partnership)
- UNEP - United Nations Environment Programme (chemical hazards, climate change, air pollution)
- UNESCO - United Nations Educational, Scientific and Cultural Organization (building standards)
- UNFCCC - United Nations Framework Convention on Climate Change (climate change mitigation, climate change adaptation)
- UNFPA - United Nations Population Fund (health services, sexual and reproductive health)
- UNHabitat - United Nations Human Settlements Programme (water and sanitation)
- UNHCR - United Nations High Commissioner for Refugees (health of refugees, conflict affected areas)
- UNICEF - United Nations Children Fund (health services, risk communication, water and sanitation)
- UNISDR - United Nations International Strategy for Disaster Reduction (multitude)
- UNOOSA - United Nations Office for Outer Space Affairs (remote sensing)
- UNRWA - United Nations Relief and Works Agency for Palestine Refugees in the Near East (health in Palestine territories)
- UN-Women - United Nations Entity for Gender Equality and the Empowerment of Women (gender, health services)
- UNWTO - United Nations World Tourism Organization (emergency preparedness, Points of Entry, IHR re travel)
- WFP - World Food Programme (food assistance, nutrition, ENSO)
- WMO - World Meteorological Organization (extreme events, ENSO, WHO-WMO joint office for health and climate)
- World Bank World Bank Group (evidence, funding, monitoring)
- WTO - World Trade Organization (IHR re trade)
Appendix F: Collaborative Partnerships – UN-WHO

- Capacity for Disaster Reduction Initiative (CADRI) Partnership
- Emergency Medical Teams Initiative
- Global Framework for Climate Services and
- Global Health Cluster
- Global Health Security Agenda (observer)
- Global Outbreak Alert and Response Network (GOARN)
- Global Risk Assessment Framework Expert Group
- Humanitarian development nexus working group
- Interagency Standing Committee and subsidiary bodies, including Principals, Emergency Directors, Emergency Response Preparedness
- International Programme on Chemical Safety
- UNDRR Science and Technical Advisory Partnership
- UNDRR Senior Leadership Group for Disaster Risk Reduction for Resilience; and UNDRRR Focal Points Group
- UNDRRR Global and Regional Platforms and equivalent bodies (Arab States, Africa, Americas, Asia, Europe, Pacific)
- WHO Thematic platform on Health EDRM and Research Network
- WHO’s Radiation Emergency Medical Preparedness and Assistance Network (REMPAN)
Appendix G: Collaborative Partnerships – WHO-Other Relevant Stakeholders.

- A network of Collaboration Centres who support WHO work on health emergencies
- Academia and research institutions (e.g. for university education, technical assistance, training, research, evaluation)
- CADRI Partnership, International Recovery Platform
- COMISCA, CPREDENAC, CAPRADE, ORAS-CONHU)
- Development banks
- Development cooperation partners and donors (e.g. DFID, ECHO, World Bank, USAID, Bill and Melinda Gates Foundation)
- Emergency Medical Teams initiative
- Global Health Cluster and country health cluster partners
- Global Outbreak Alert and Response Network (GOARN)
- Inter-Organization Programme for the Sound Management of Chemicals (IOMC)
- Ministries and sectors (including animal health and non-health sectors, e.g. national disaster risk management agencies, security, finance)
- Ministries of Health and other national health authorities (e.g. public health institutions, centres for disease control)
- Non-government organizations in Official Relations with WHO (e.g. International Hospitals Federation, International Federation of Medical Students Associations, Inclusion)
- OECD Organisation of Economic Cooperation and Development (chemical accident Red Cross/Red Crescent Movement (IFRC, ICRC, national societies, IFRC Climate Centre)
- Private sector (e.g. for technical assistance, logistics)
- Regional and sub-regional bodies (e.g. ECOWAS, RIASCO, UNECE, ASEAN, SAARC, APEC, CDEMA,
- SEARO’s regional framework on operational partnerships for emergency response
- Strategic partnership for Health Security and Emergency Preparedness Portal
- WHO Thematic Platform for Health Emergency and Disaster Risk Management and Research Network

86 Strategic Partnership for Health Security and Emergency Preparedness (SPH) Portal: https://extranet.who.int/sph/home
87 Health EDRM Research Network: https://extranet.who.int/kobe_centre/en/what_we_do/health-edrm-rn