HEALTH EMERGENCY RISK MANAGEMENT

The world faces a broad range of emergencies resulting from various hazards with different scales, complexity and international consequences, such as natural disasters, conflict, disease outbreaks, food contamination, chemical spills or radionuclear accidents. These emergencies can have extensive humanitarian, economic, social and environmental impacts, with potential long-term consequences, sometimes persisting for years and undermining decades of social and economic development and hard-earned health gains (1).

The range of threats globally is broad and diverse. Natural, biological, technological and societal hazards put the health of vulnerable populations at risk and may cause significant harm to public health (2). Since threats cannot always be completely averted or eliminated, countries are encouraged to strengthen their capacities for emergency risk management through initiatives including stepping-up prevention measures, improving response capacities and ensuring recovery programmes are followed (3).

In the WHO European Region, the key hazards are heat-waves, earthquakes, floods, drought, foodborne disease outbreaks, mass movements, armed conflicts, deliberate events and the impact of socioeconomic and political fragility. Countries to the east of the Region are at high risk of earthquakes, whereas central European countries are at a greater risk of floods. Droughts can occur throughout the Region.

Member States of the WHO European Region are diverse in terms of geography, economic performance, epidemiological profile, health system structure and other factors that might influence their health emergency preparedness and response capacity. The Region is home to major global air and sea transportation hubs that enable the movement of passengers and cargo around the world. Several Member States have overseas territories, which introduce additional challenges to ensuring health emergency preparedness and response across the Region.
The management of health risks posed by emergencies and disasters requires a combination of (i) **prevention** through hazard and vulnerability reduction to mitigate risks, (ii) **preparedness**, (ii) **response** and (iv) **recovery** measures (2). These four phases make up the emergency management cycle.

Health emergency management is multisectoral. For example, the prevention of waterborne diseases lies with authorities responsible for provision of clean water, while reduction in traffic accidents is the responsibility of law enforcement and road transport authorities. Diseases passed between animals and humans (zoonotic diseases) require joint action between the agricultural, environmental and health sectors.

The International Health Regulations (IHR) are a set of rules, legally binding for all WHO Member States. The IHR provide a global platform to respond effectively and in a timely manner to potential public health emergencies through the implementation and monitoring of core capacities, including legislation, coordination, surveillance, response, preparedness, risk communication, human resources, laboratory capacities and points of entry (4). The implementation of the IHR in emergency risk management is highlighted in the 2030 Agenda for Sustainable Development, target 3.d, building on the achievement of IHR (2005) core capacities. Other aspects of the emergency management cycle are embedded in different Sustainable Development Goals (SDGs) (5).

**Facts and figures**

**SDG 3.d. Strengthen the capacity of all countries for early warning, risk reduction and management of national and global health risks**

Data collected using the State Party Self-assessment Annual Reporting Tool (6) show incremental progress in the implementation of the core capacities of the IHR (2005) at Member State level across the Region in the critical areas of surveillance, multisectoral coordination, emergency preparedness and response (Fig. 1).

The scale, magnitude and pace of progress are not uniform across all core capacities and Member States in the WHO European Region, with significant disparities between the three highest performing Member States (Czech Republic, Germany and Norway) and the three lowest performing Member States (Albania, Bosnia and Herzegovina, and Serbia), based on self-reported data (Fig. 2).

Disparities between countries are particularly evident in human resources, an area that requires medium- to long-term planning and sustained investment. The availability and accessibility of a quality health workforce form the cornerstones of human resources capacity and are critical to building resilient communities: eight out of the 53 countries in the WHO European Region have ensured that a multisectoral workforce is available and fully trained as required by the IHR (2005) (6).

Increasing interconnectedness of the Member States of the WHO European Region underscores the potential vulnerability of the whole Region to continuing disparities in core capacities among countries. This highlights the need for enhanced investments in core capacities in low-performing countries and the need for cross-border, multisectoral collaboration in public health emergency management, risk mitigation, rapid response and information sharing.
Fig. 1. Implementation status of IHR core capacities in the WHO European Region, 2010 and 2017


Fig 2. Self-reported scores for the core capacity area of the IHR (2005) for the highest and lowest performing Member States in 2016

Note: averages of the three highest-performing Member States (Czech Republic, Germany and Norway) and the three lowest-performing Member States (Albania, Bosnia and Herzegovina, and Serbia).


SDG 3.3. End the epidemics of communicable diseases

Cases of communicable diseases are being identified within the WHO European Region with a frequency, scale and magnitude previously not known.

A number of factors are postulated as causes of these increases in emerging or re-emerging diseases, including global warming, low vaccination rates in high-risk and vulnerable groups, growing vaccine resistance and scepticism, increasing antimicrobial resistance and increasing coverage, frequency and speed of global air travel.

Measles continues to spread across the WHO European Region as vaccination coverage is suboptimal. Large outbreaks with fatalities are ongoing in countries...
that had previously eliminated transmission. In 2017, 14,600 cases of measles were reported by European Union (EU) Member States. The total number of cases was more than triple the number of reported cases in 2016 and 2015 (8,9).

West Nile virus infections sharply increased in 2018 in the WHO European Region, with a total of 2083 cases in 2018 compared with 1832 cases in the previous seven years combined. The highest increases were observed in Bulgaria, France and Italy. This increase was largely a result of the early start of the transmission season due to high temperatures and extended rainy spells, followed by dry weather, conditions conducive to mosquito breeding (10).

SDG 3.4. Reduce premature mortality from noncommunicable diseases

Emergencies can have adverse effects on the health of people with noncommunicable diseases, causing acute disease exacerbations or a life-threatening deterioration through physical injuries, forced displacement, degradation of living conditions and interruption of care. Moreover, overstretched health services might not be able to respond adequately to the burden of diseases that they were covering before the onset of the emergency (11).

Events such as heart attacks and strokes may be up to 2–3 times more common than in normal circumstances (11).

Refugees and migrants appear to be less affected than their host populations by many noncommunicable diseases on arrival; however, their risks for cardiovascular diseases, stroke or cancer appear to increase with increasing duration of stay in the host country. Prevalence may be linked as much to socioeconomic factors such as to poverty as to migration-specific factors. The potential for refugees and migrants to change their lifestyle to engage in less physical activity and consume less healthy food also increases their risk factors for noncommunicable diseases (12).

Refugees and migrants in the WHO European Region have a higher incidence, prevalence and mortality rate for diabetes mellitus than host populations (13). Development of diabetes also occurs at an earlier age than for the population in the country of origin (14). Some countries in the Region have recorded more chronic complications of diabetes among refugees and migrants, specifically noting that microvascular complications such as nephropathy, diabetic retinopathy and peripheral neuropathy were worse in this population (13).

SDG 3.4. Promote mental health and well-being

During and after emergencies, people are more likely to suffer from a range of mental health problems (15). The psychological impacts of emergencies may be acute in the short term, but they can also undermine the long-term mental health and psychosocial well-being of the affected population (16). Mental health is essential to the overall well-being, functioning and resilience of individuals, societies and countries recovering from emergencies (15).

The experience of migration can be complex and stressful, related to events before departure, during travel and transit, and after arrival. Consequently, refugees and migrants can be at risk for mental health disorders, including post-traumatic stress disorder, which has a prevalence of 9–36% in refugees and migrants compared with 1–2% in the host populations (12).
Furthermore, refugees and migrants resettled in Member States of the WHO European Region often encounter significant barriers to accessing mental health care, through issues such as lack of knowledge of legal entitlements, poor command of the host country language and cultural beliefs about mental health (17).

SDG 3.7. Ensure universal access to sexual and reproductive health-care services

Both conflict and displacement have a profound negative impact on the reproductive health of women, men and adolescents (18).

During displacement, including in shelters and sites for internally displaced people, the issues of exploitation and abuse of women and children, including domestic, sexual and other forms of gender-based violence, are common. Children may be at risk of trafficking and girls also of early and/or forced marriage. Refugee and migrant women and children are frequently victims of rape, sexual harassment and physical assault, particularly during the migration journey (18–20). Unaccompanied children are particularly likely to be exposed to violence and physical and sexual abuse (12).

Compared with the general EU population, refugee and migrant women are screened less often for cervical and breast cancer, have less access to family planning and contraception, a lower uptake of gynaecological health care, are more at risk of unintended pregnancies, pay fewer and later antenatal care visits, have poorer pregnancy outcomes and have higher infant and maternal mortality rates (21).

SDG 3.8. Achieve universal health coverage

During emergencies, public health and health care services should provide access to quality, people-centred essential health services for all people and communities. Limited resources, a surge in demand for public health and health-care services, and the disruption of communication and supply lines creates a significant challenge to the provision of health care (22).

The ongoing crisis in eastern Ukraine serves as an example within the WHO European Region of disrupted health systems, where millions of people still require humanitarian assistance after five years of conflict. In December 2018, 2.2 million people were in need of essential health services. During 2018, WHO and other United Nations agencies procured medicines, medical supplies and medical equipment for selected secondary and tertiary health-care facilities to serve the needs of over 500 000 people on both sides of the contact line (23).

Restricted access to high-quality health care is problematic not only in conflict areas but also among marginalized groups, such as asylum seekers, refugees, migrants, Roma and victims of trafficking. All these groups may face significant barriers and inequities in entitlement and access to high-quality health care within the WHO European Region (24).


SDG 1.5, SDG 11.5 and SDG 11.b. Strengthen resilience to climate change and disasters and adaptive capacity of people, cities and human settlements

Anticipation and planning are urgent and critical to reduce disaster risks and to protect people, communities and countries effectively. This includes ensuring the maintenance of livelihoods, health, cultural heritage, socioeconomic assets and ecosystems, thus strengthening resilience (22).

- The risks related to economic losses and infrastructure damage are rising as a result of the increasing number and value of the assets exposed to hazards, the inadequacy of prevention measures and the growing interconnectedness of markets, societies and technologies in a digitalized economy (25).

- The Genoa bridge tragedy in August 2018 caused 43 deaths, left 600 homeless and highlighted the need to urgently readdress the challenges of infrastructure safety in the Region. Many European countries must deal with ageing infrastructure needing renovation or renewal (25).

- Disaster events can also be detrimental to the financial systems of countries. For example, the 2014 flooding in Serbia proved to be one of the costliest disasters in the country, with damages running up to US $1 billion and plunging the country into recession (26).

SDG 3.9, SDG 13.1 and SDG 13.3. Reduce deaths and illnesses from environmental exposures, climate-related hazards and natural disasters and improve capacity for climate change mitigation

Climate change adversely affects human health by increasing exposure and vulnerability to climate-related stresses, and decreasing the capacity of health systems to manage changes in the magnitude and pattern of climate-sensitive health outcomes (27).

- In 2016, weather and climate-related extremes accounted for 92% of total reported disaster events and around 83% of the total losses (23).

- Since 2000, there has been an astonishing run of extreme events, such as record-breaking storms, forest fires, droughts, heat-waves and floods around the world and in the WHO European Region (Fig. 3), with an increase in frequency and intensity that is linked to human-induced warming of currently 1 °C above pre-industrial levels. To limit warming to 1.5 °C above pre-industrial levels would require achieving net zero carbon dioxide emissions and concurrent major reductions in non-carbon dioxide emissions in less than 15 years. For limiting warming to 2 °C, carbon dioxide emissions would need a 25% reduction by 2030 and be net zero by 2070 (27).

- For every 1 °C increase in maximum apparent temperature, mortality is estimated to increase by about 2% in northern European cities and by about 3% in southern European cities (29,30).

- In the WHO European Region, extreme temperatures were the deadliest events between 1990 and 2018, with approximately 145 000 heat-related deaths (28). Projections for the WHO European Region estimate an additional 13 500 heat-related deaths per year by 2030 for the population aged over 65 years (31).
The number of people affected by coastal flooding in the EU at the end of the 21st century is estimated to range between 775,000 and 5.5 million people annually, depending on the emissions scenario (32,33).

Global warming will result in geographic expansions of regions climatically suitable for certain infectious agents and for transmission of vector-borne diseases. In the WHO European Region, this will include the mosquito- and tick-borne diseases such as Lyme disease, tick-borne encephalitis and West Nile virus infection (10,27).

Air pollution is an important determinant of health. Pollution from particulate matter creates a substantial burden of disease, reducing life expectancy by almost nine months on average in the WHO European Region. Exposure to air pollutants is largely beyond the control of individuals and requires action by public authorities at the national, regional and international levels (34).

Fig. 3. Emergency events (natural, technological and complex disasters) and resulting total damage in the WHO European Region, 1990 to 2018

Notes: total estimated damage from transport accidents is US$ 265.7 million; insect infestation, mass movement, volcanic activity, landslide, epidemic, impact and miscellaneous accidents not included.

Source: Centre for Research on the Epidemiology of Disasters, 2019 (28).

SDG 16.1. Significantly reduce all forms of violence and related deaths everywhere

Crises and conflicts disrupt and even break health systems.

Globally, it is estimated that 60% of preventable maternal deaths, 53% of deaths in children under 5 years of age and 45% of neonatal deaths take place in settings of conflict, displacement and natural disasters (35).

Increasing numbers of people are leaving their homelands because of human rights violations, persecution and conflict. The WHO European Region is now the largest host of people who migrate for these reasons (17).

Between March 2017 and December 2018, 504 conflict-related injuries and 114 conflict-related deaths were reported in connection with the Ukrainian humanitarian crisis (23).

Health workers can play an integral role in the preservation and promotion of peace during armed conflicts (36). Because of their professional and ethical position within the community, health workers can provide a neutral meeting point for conflicting parties to discuss mutually beneficial interventions (37).
At the Sixty-ninth World Health Assembly in 2016, Member States agreed to reform WHO’s role working in emergencies, mandating the establishment of the new WHO Health Emergency Programme (WHE).

Emergencies, mandating the establishment of the new WHO Health Emergency Programme (WHE). The programme aims “to save lives and reduce suffering during times of crisis – whether caused by conflict, disease outbreak or a disaster” by working with countries and partners to prepare for, prevent, respond to and recover from all hazards that create health emergencies, including disasters, disease outbreaks and conflicts (38).

The thirteenth General Programme of Work 2019–2023 (GPW13), approved at the Seventy-first World Health Assembly in 2018, sets out WHO’s strategic priorities in the “triple billion” goal: 1 billion more people benefiting from universal health coverage, 1 billion more people better protected from health emergencies and 1 billion more people enjoying better health and well-being (39). The goal of protecting from health emergencies is aligned with and based on SDG target 3.d (IHR capacity and emergency preparedness). Further targets agreed in the GPW13 were an increase to at least 80% in the number of vulnerable people in fragile settings provided with essential health services; an increase of immunization coverage for cholera, meningitis, pandemic influenza and yellow fever; and a reduction by 5% in the number of deaths attributed to disasters per 100 000 population (39).

In the Action Plan to Improve Public Health Preparedness and Response in the WHO European Region (WHO European Action Plan (40)), Member States committed to take actions in 14 key areas (Table 1).

The fulfilment of these commitments requires health system strengthening; a revitalized partnership across all relevant health programmes, actors and sectors; and good quality, reliable disaggregated data (19). The assessment and evaluation of the IHR core capacity reports provide Member States and the WHE team with the concrete prescription for action (41).

To strengthen and maintain capacity within the WHO European Region to effectively prevent, prepare for and respond to public health threats, Member States are called upon to upgrade their national emergency plans by adapting and accommodating an all-hazard approach, taking into consideration the results of the assessment and evaluation of their IHR core capacities, and including the participation of multiple stakeholders and sectors (22,38).

Member States welcomed the WHO European Action Plan (40), which is to be implemented by States Parties and the WHO Regional Office for Europe in collaboration with key partners and in line with the requirements of the IHR (2005). The focus of the WHO European Action Plan is a Region where the negative impact of health emergencies is prevented or minimized. The WHO European Action Plan also recognizes the fundamental importance of country ownership that focuses on a needs-based approach to capacity development and draws, where possible, on domestic sources of funding in order to ensure sustainability. All preparedness and response strategies and actions undertaken by States Parties should be based on national risks, hazards and vulnerabilities and should involve all relevant national and, where applicable, international stakeholders. WHO works with countries and partners to provide life-saving health services to affected populations during ongoing emergencies (Box 1).

The emphasis is on guiding stakeholders to support countries in capacity development and coordinate the provision of assistance during an emergency in line with the IHR (2005); acknowledging existing subregional frameworks (43); prioritizing WHO support to priority countries in the WHO European Region; and basing it on the importance of an all-hazard, as well as the One Health approach (Box 2), focusing on all phases of the emergency management cycle.

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1 Based on countries’ hazards mapping, vulnerability and health system maturity the following priority countries were selected: Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, North Macedonia, Republic of Moldova, Serbia, Tajikistan, Turkey, Ukraine and Uzbekistan.

2 In adopting the IHR (2005), States Parties agreed to broaden the scope of the IHR from specific infectious diseases to a risk-based approach that includes biological, chemical, foodborne, radiological, nuclear and other hazards that might affect human health.
Table 1. The 14 key areas of commitment by Member States in the WHO European Action Plan

| National policies, plans and legislation | Ensure political and financial commitments to develop and maintain IHR (2005) implementation at regional, national and subnational levels |
| IHR coordination | Establish, maintain and strengthen national multisectoral mechanisms for IHR (2005) implementation |
| National laboratory systems | Implement strategies focusing on quality assurance of public health laboratories |
| National surveillance systems | Ensure that an integrated early warning function for priority hazards (e.g. potential outbreaks and other public health risks) is in place |
| Human resources | Ensure adequate distribution of the emergency preparedness and response workforce across the health system |
| Risk communication | Establish, maintain and strengthen a transparent intersectoral risk communication system for public health threats in a timely and coordinated manner |
| Points of entry | Develop and maintain routine and emergency capacities at designated points of entry and ensure regular evaluation |
| Synergies | Review ongoing activities for strengthening health systems and essential public health functions in order to identify and use synergies at their intersection |
| One Health approach | Establish national mechanisms for cross-sectoral coordination, integrated preparedness and response, surveillance and information sharing, joint risk assessment, risk communication and risk reduction strategies, and workforce development in the human and animal health sectors |
| Financing of IHR (2005) implementation | Ensure that activities for health emergency preparedness are included in national budgets and health system financing plans |
| Notification and information sharing | Establish, maintain or strengthen a national system to ensure timely detection, investigation, risk assessment and information sharing among relevant national stakeholders |

Ensure that national IHR focal points have sufficient capacity to comply with obligations for notification, consultation, verification and information exchange with WHO.
Table 1. contd.

| Emergency preparedness and response operation | Conduct and regularly update all-hazard risk mapping to serve as the basis of national preparedness planning |
| Develop and regularly update national multisectoral, all-hazard emergency preparedness and response activities and supporting policies and procedures with dedicated financial and human resources |
| Establish, maintain or strengthen emergency response coordination mechanisms, including incident management systems and health emergency operations centres |
| Implement appropriate policies and standard operating procedures to ensure the continuous delivery of essential health services packages |

| Medical countermeasures and personnel deployment | Develop a system for activating and coordinating medical countermeasures during a public health emergency, including mechanisms for sending and receiving medical countermeasures and deployed health personnel |
| Establish, maintain or strengthen the guaranteed availability of essential supplies and pharmaceuticals based on national risk profiles |
| Establish, maintain or strengthen a procurement and supply chain management system |

| Mandatory annual reporting | Report annually to the World Health Assembly on the status of implementation of IHR (2005) |
| Ensure that gaps identified through the obligatory annual reporting are addressed in national action plans for health emergency preparedness |

Source: WHO Regional Office for Europe, 2018 (40).

Box 1. Leaving no one behind

**WHO and partners reach besieged northern areas of the Syrian Arab Republic:** amid conflict and working under extreme conditions, health services are being provided in hard-to-reach and besieged areas in the north of the country (42). The burden of emergencies falls disproportionately on vulnerable populations, namely the poor, ethnic minorities, old people and people with disabilities. In line with the United Nations “whole-of-Syria” approach, WHO brings together and coordinates health-care groups providing life-saving interventions to people in need across lines and borders (42).

With WHO’s technical guidance and support, health partners:

- deliver medicines and other supplies;
- vaccinate hundreds of thousands of Syrian children against diphtheria, measles, polio and other diseases;
- treat burns and severe injuries;
- provide primary health care to more than a million people;
- prepare for outbreaks, such as cholera;
- care for patients with diabetes and other noncommunicable diseases;
- identify the signs of psychiatric trauma and refer patients for proper care; and
- train health-care workers.
Box 2. Intersectoral action

Public and animal health services meet to combat zoonotic diseases in Kyrgyzstan: 80% of the infectious diseases that affect human health are of animal origin. Consequently, it is critical that addressing zoonotic diseases involves a coordinated, collaborative and cross-sectoral approach at the national level, effectively engaging both public and animal health.

In a first-of-its-kind event, 48 experts from public and animal health sectors met in Kyrgyzstan for a three-day national bridging workshop in late 2018, bringing together the two sectors of WHO’s International Health Regulations (IHR) Monitoring Framework and the World Organisation for Animal Health’s Performance of Veterinary Services (PVS) pathway (44). The aim was to explore options for improved coordination to strengthen preparedness and control the spread of zoonotic diseases.

Participants used case studies, group exercises and results from external evaluations to identify strengths and gaps in the collaboration between the two sectors in various technical domains and improve their understanding of the added value of a One Health approach to the management of public health events at the human–animal interface and the importance of international frameworks for global health security. In addition, they increased their awareness and understanding of the IHR (2005) and the role of WHO in their implementation, and of the mandate of the World Organisation for Animal Health and its activities to support countries’ compliance with international standards for animal health and welfare.

Monitoring progress

Global and regional early warning and events-based surveillance systems are now in place. The WHO Regional Office for Europe has developed a joint monitoring framework for Health 2020 and the SDGs to facilitate reporting in Member States and to enable a consistent and timely way to measure progress (45). Emergencies compromise the achievement of all Health 2020 targets. The following, as proposed in the Global Indicator Framework for the Sustainable Development Goals and Targets of the 2030 Agenda for Sustainable Development (46) of the United Nations Economic and Social Council (ECOSOC), will support monitoring progress in emergency management (Table 2). Progress on improving public health preparedness and response is also monitored using the WHO European Action Plan. To reach the GPW13 goal of better protection from health emergencies for 1 billion more people, measurement tools will be strengthened to include variables on exposure and vulnerability. To ensure the universality of this indicator, a new composite index of protection from health emergencies, incorporating the three subindices of preparedness, prevention and response, was developed including data from the IHR State Party Self-assessment Annual Reporting Tool, the Joint External Evaluation report and the World Bank gross national income data (39).

Table 2. Indicators related to emergency management

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<th>ECOSOC indicators</th>
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<td>3.d.1. International Health Regulations (IHR) capacity and health emergency preparedness index</td>
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<td>1.5.1. Number of deaths, missing persons and directly affected persons attributed to disasters per 100 000</td>
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<td>1.5.3/11.b.1/13.1.2. Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030</td>
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<td>1.5.4/11.b.2/13.1.3. Number of countries with national and local disaster risk reduction strategies</td>
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<tr>
<td>11.5.1. Number of deaths, missing persons and directly affected persons attributed to disasters per 100 000 population</td>
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<td>13.3.1. Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula</td>
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<tr>
<td>16.1.2. Conflict-related deaths per 100 000 population, by sex, age and cause</td>
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WHE consists of a single workforce using common standards and processes to provide a fast, effective and predictable response to health emergencies, addressing the full cycle of emergency management (38). WHO continually monitors events happening worldwide to determine their potential impact on public health and whether an emergency response is required. If an emergency is identified, WHO will (i) develop an evidence-based health sector response strategy, plan and appeal; (ii) ensure that adapted disease surveillance, early warning and response systems are in place; (iii) provide up-to-date information on the health situation and health sector performance; (iv) promote and monitor the application of standards and best practices; and (v) provide relevant technical expertise to affected Member States and all relevant stakeholders (1). WHE provides the following services to countries (47):

- supporting assessment of country health emergency preparedness and development of national plans to address critical capacity gaps;
- developing strategies and capacities to prevent and control high-threat infectious hazards; and
- monitoring new and ongoing public health events to assess, communicate and recommend action for public health risks.

In addition, WHO works with countries and partners (47) to:

- ensure readiness to diminish public health risks in countries with high vulnerability; and
- provide life-saving health services to affected populations in countries with ongoing emergencies (see Box 1).

In 2016, WHO deployed over 1800 experts to public health emergencies to support affected countries (48). More than half were recruited externally, including from partner organizations.

- The Global Health Cluster, led by WHO, is a platform for organizations to work in partnership to ensure collective action results in more timely, effective and predictable response to health emergencies. The Global Health Cluster currently has 48 humanitarian partner agencies at the global level and over 300 in countries (48).

- Under the WHO European Action Plan, capacities in the 14 priority countries (see above) have been strengthened through the engagement of a health emergencies officer in each WHO country office, with a dedicated workplan and funding to support the country in the implementation of the WHO European Action Plan.
WHO regularly collaborates and coordinates with partner networks to leverage and coordinate the expertise of hundreds of partner agencies and ensure the delivery of essential health services for affected populations (47). WHO cooperates with a wide network of humanitarian partners worldwide, including the Red Cross and Red Crescent movement, collaborating centres, universities and other academic institutions, nongovernmental organizations and senior public health experts. Other key partners are:

- donors, civil society and academic institutions;
- emergency medical teams;
- European Centre for Disease Control;
- Global Health Cluster;
- Global Outbreak Alert and Response Network (GOARN);
- Inter-Agency Standing Committee (IASC);
- intergovernmental institutions such as the African Union, the Council of Europe and the International Organization of Civil Protection;
- Robert Koch Institute; and
- standby partners.

Resources

International Health Regulations (2005)
http://apps.who.int/iris/bitstream/10665/43883/1/9789241580410_eng.pdf


Priorities for Health Systems Strengthening in the WHO European Region 2015–2020: Walking the Talk on People Centredness
http://www.euro.who.int/__data/assets/pdf_file/0003/282963/65wd13e_HealthSystemsStrengthening_150494.pdf?ua=1

Sendai Framework for Disaster Risk Reduction 2015–2030
http://www.preventionweb.net/files/43291_sendaiframeworkfordrrren.pdf
### Key definitions

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<th>Term</th>
<th>Definition</th>
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<td>Complex disasters</td>
<td>“Situations of disrupted livelihoods and threats to life produced by warfare, civil disturbance and large-scale movements of people, in which any emergency response has to be conducted in a difficult political and security environment” (49).</td>
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<tr>
<td>Crisis</td>
<td>“An event or series of events representing a critical threat to the health, safety, security or well-being of a community, usually over a wide area. Armed conflicts, epidemics, famine, natural disasters, environmental emergencies and other major harmful events may involve or lead to a humanitarian crisis” (50).</td>
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<td>Disaster</td>
<td>“A serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses that exceed the ability of the affected community or society to cope using its own resources. A disaster is a function of the risk process. It results from the combination of hazards, conditions of vulnerability and insufficient capacity or measures to reduce the potential negative consequences of risk…. Any occurrence that causes damage, ecological disruption, loss of human life or deterioration of health and health services on a scale sufficient to warrant an extraordinary response from outside the affected community or area” (50).</td>
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<td>Emergency</td>
<td>“A sudden occurrence demanding immediate action that may be due to epidemics, to natural, to technological catastrophes, to strife or to other man-made causes” (44). Emergency is sometimes used interchangeably with the term disaster, especially in the context of biological, technological or health emergencies. However, as opposed to disasters, emergencies can also relate to hazardous events that do not result in the serious disruption of the functioning of a community or society (51).</td>
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<td>Emergency operations</td>
<td>Incident management functions, operational partnerships and readiness, and operations support and logistics; emergency operations management and administration and external relations (38).</td>
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<td>Emergency preparedness</td>
<td>A programme of long-term activities with the goal of strengthening the overall capacity and capability of a country or a community to manage efficiently all types of emergency and to bring about an orderly transition from relief through recovery and back to sustained development. Preparedness requires that emergency plans have been developed, personnel at all levels and in all sectors have been trained, and communities at risk have been educated; finally these measures need to be monitored and evaluated regularly (50).</td>
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<tr>
<td>Emergency preparedness and risk reduction</td>
<td>Defined by WHO for programmatic purposes as activities that aim at preventing, mitigating and preparing for emergencies, disasters and other crises (50).</td>
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<tr>
<td>Emergency response</td>
<td>Actions taken directly before, during or immediately after an emergency in order to save lives, reduce health impacts, ensure public safety and meet the basis subsistence needs of the affected population. Effective, efficient and timely response relies on disaster risk-informed preparedness measures, including the development of the response capacities of individuals, communities, organizations, countries and the international community.</td>
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<tr>
<td><strong>Hazard</strong></td>
<td>“Any phenomenon that has the potential to cause disruption or damage to people and their environment” (50).</td>
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<td><strong>Public health emergency</strong></td>
<td>“An occurrence or imminent threat of an illness or health condition, caused by bioterrorism, epidemic or pandemic disease, or a novel and highly fatal infectious agent or biological toxin, that poses a substantial risk of a significant number of human facilities or incidents or permanent or long-term disability” (53).</td>
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<td><strong>Public health emergency of international concern</strong></td>
<td>Defined by the IHR (2005) as “an extraordinary event which is determined, as provided in these Regulations: (i) to constitute a public health risk to other States through the international spread of disease and (ii) to potentially require a coordinated international response.” This definition implies a situation that is serious, unusual or unexpected; carries implications for public health beyond the affected state’s national border; and may require immediate international action (4).</td>
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<td><strong>Recovery</strong></td>
<td>Restoring or improving in an emergency-affected community or society livelihoods and health, as well as economic, physical, social, cultural and environmental assets, system and activities, aligning with the principles of sustainable development and “build back better.”</td>
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<tr>
<td><strong>Risk reduction</strong></td>
<td>Measures designed either to prevent hazards from creating risks or to lessen the distribution, intensity or severity of hazards. These measures include flood mitigation works and appropriate land-use planning. They also include vulnerability reduction measures such as awareness raising, improving community health security, and relocation or protection of vulnerable populations or structures (50).</td>
</tr>
<tr>
<td><strong>Vulnerability</strong></td>
<td>Diminished capacity of an individual, group or system to anticipate, cope with, resist and recover from the impact of a natural or human-generated hazard.</td>
</tr>
</tbody>
</table>
References


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