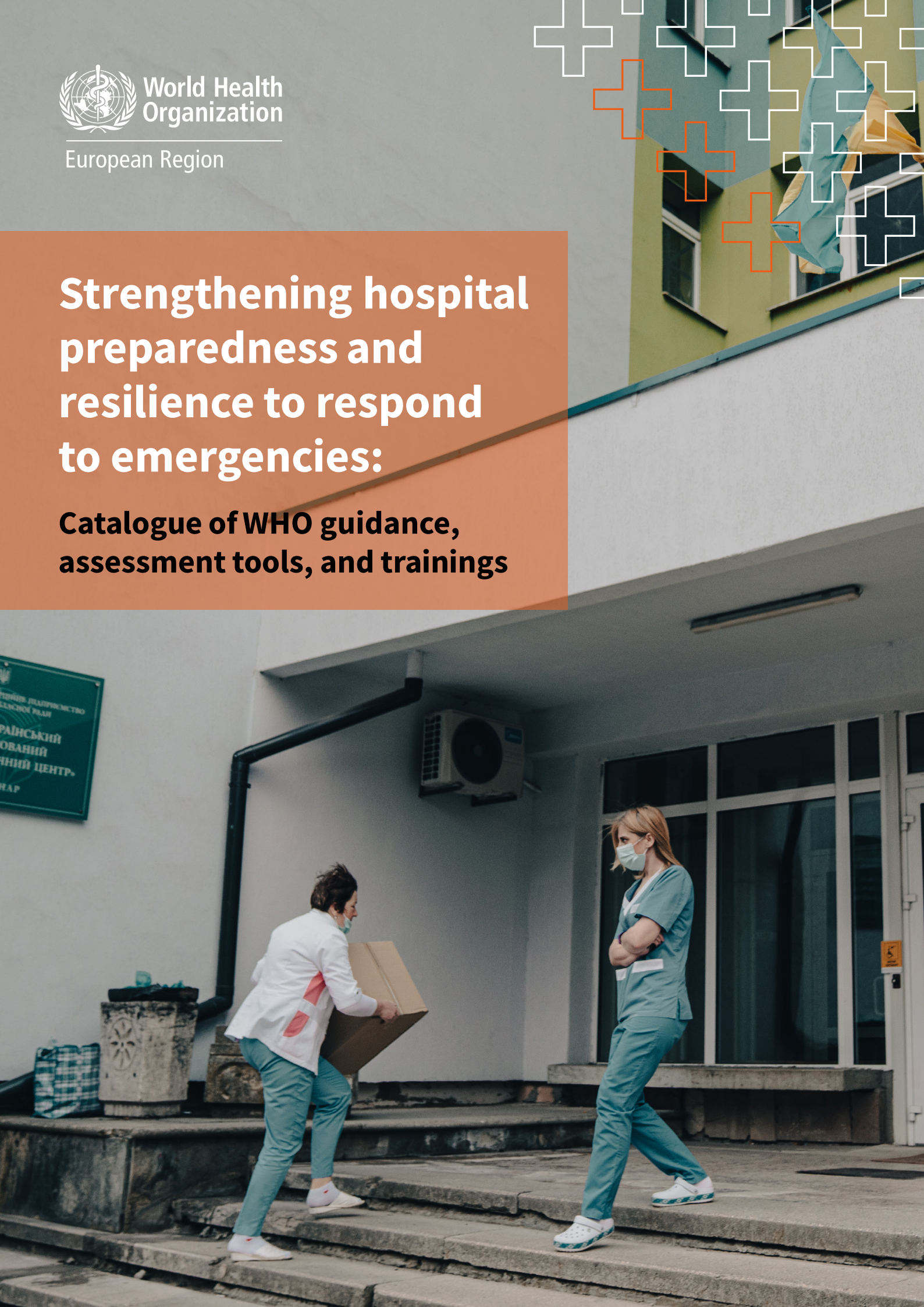


Strengthening hospital preparedness and resilience to respond to emergencies:

**Catalogue of WHO guidance,
assessment tools, and trainings**







Strengthening hospital preparedness and resilience to respond to emergencies: Catalogue of WHO guidance, assessment tools, and trainings

Health facilities, especially hospitals, are critical assets for communities both routinely and especially in response to emergencies, disasters, and other crises. Yet hospitals and health workers are often among the major casualties of emergencies, with the result that health services cannot be provided to affected communities when they are most needed.¹

This catalogue summarizes the available resources from the World Health Organization (WHO) to support and strengthen hospital² preparedness to emergencies in the European region. It is intended to be a living document to be updated on a regular basis as new guidance, tools, and trainings become available.

The target audience for this catalogue are public health professionals, hospital administrators, and other health actors working at various levels in Member States from the European region, aiming to strengthen hospital preparedness and resilience to emergencies.

This catalogue lists WHO resources in the following order:

1. WHO guidance

- 1.1 Global guidance
- 1.2 Regional guidance

2. Assessment tools

- 2.1 Global tools
- 2.2 Regional tools

3. Trainings

- 3.1 Online trainings
- 3.2 Available face-to-face trainings

For further information please contact the Preparedness, Readiness and Capacity Building team in the Health Emergencies Programme at the WHO Regional Office for Europe at europcb@who.int.

All photos: ©WHO

¹ World Health Organization (2015). Comprehensive Safe Hospital Framework. Geneva: World Health Organization. (<https://www.who.int/publications/m/item/comprehensive-safe-hospital-framework>)

² The Safe Hospital Framework takes into account the critical role of different types of health facilities play in ensuring a safer health system. Primary care facilities, for example, often serve as the first line of support in emergency contexts. Accordingly, the scope of the term goes beyond the traditional definition of a hospital and many of these resources can be contextualized and adapted to suit the primary care level. For further support and guidance for this, please contact the Preparedness, Readiness and Capacity Building (PCB) team in the Health Emergencies Programme at the WHO Regional Office for Europe at europcb@who.int.



GLOBAL AND REGIONAL

WHO guidance

1.1 Global guidance

1.2 Regional guidance

1. WHO guidance



1.1 Global guidance

Comprehensive Safe Hospital Framework

A core document for hospital emergency preparedness, the Safe Hospital Framework presents a structured approach for actions to strengthen the safety and preparedness of hospitals and health facilities for all types of hazards. It describes the framework's vision and scope of the work, with medium to long-term goals and achievable outcomes, and proposes four main components of Safe Hospital Programs. An implementation mechanism follows, with guiding principles that support implementation of key actions of the framework in a country setting.

World Health Organization (2015). Comprehensive Safe Hospital Framework. Geneva: World Health Organization; (<https://www.who.int/publications/m/item/comprehensive-safe-hospital-framework>).



Available in English



WHO guidance for climate resilient and environmentally sustainable health-care facilities

The aim of this guidance is to enhance the capacity of health-care facilities to protect and improve the health of their target communities in an unstable and changing climate; and to empower health-care facilities to be environmentally sustainable, by optimizing the use of resources and minimizing the release of waste into the environment.

World Health Organization (2020). WHO guidance for climate resilient and environmentally sustainable health-care facilities. Geneva: World Health Organization; (<https://iris.who.int/handle/10665/335909>).



Available in English, French and Spanish



Hospital preparedness for epidemics

This document provides information on how hospital and other health-care facilities play a critical role in national and local responses to emergencies, such as communicable diseases epidemics.

World Health Organization (2014). Hospital preparedness for epidemics. Geneva: World Health Organization; (<https://iris.who.int/handle/10665/151281>).



Available in English and Portuguese





1.2 Regional guidance

Hospital emergency response plan. A guide for emergency response planning

This guide has been developed by the WHO Regional Office for Europe to assist Member States and hospitals to develop their hospital emergency response plans (H-ERPs). Where applicable, Member States can use the guide to revise and update their H-ERPs, considering the concurrent risks often associated with multiple major hazards, where events may occur simultaneously, in a cascading manner or cumulatively over time. It is a part of a comprehensive toolkit for hospital response planning and includes a training course, guide, annexes and reference documents.

WHO Regional Office for Europe. Hospital emergency response plan. A guide for emergency response planning. Copenhagen: WHO Regional Office for Europe (*limited distribution, available upon request to europcb@who.int*).



Hospitals of the future: a technical brief on re-thinking the architecture of hospitals

This technical brief is structured as a guide for health care planners and designers to improve the safety, comfort and efficiency of refurbished and redesigned hospital projects and new hospital facilities across the WHO European Region.

World Health Organization. Regional Office for Europe. (2023). Hospitals of the future: a technical brief on re-thinking the architecture of hospitals. World Health Organization. Regional Office for Europe; <https://iris.who.int/handle/10665/367954>.



 Available in English





GLOBAL AND REGIONAL

WHO

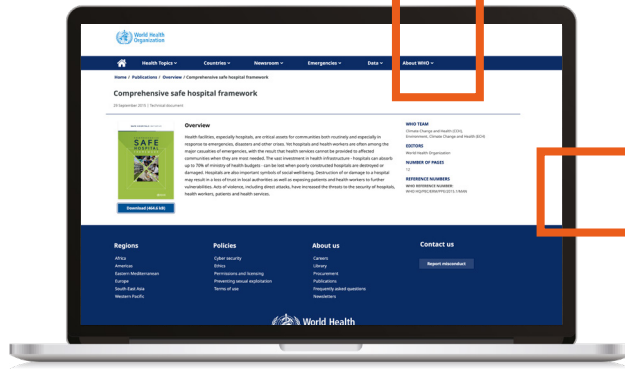
assessment tools

2.1 Global tools

2.2 Regional tools

2. WHO assessment tools

2.1 Global tools



Hospital safety index: guide for evaluators, 2nd ed. + hospital safety index evaluation forms

This guide for Hospital safety index evaluators provides a step-by-step explanation on how to use the Safe Hospitals Checklist, and how the evaluation can be used to obtain a rating of the structural and non-structural safety, and the emergency and disaster management capacity, of the hospital.

World Health Organization & Pan American Health Organization (2015). Hospital safety index: guide for evaluators, 2nd ed. Geneva: World Health Organization; (<https://iris.who.int/handle/10665/258966>).



 Available in English

WHO Emergency Care System Assessment

The WHO Emergency Care System Assessment is a structured survey that can be answered in writing or via interviews or focus groups. In order to ensure an accurate description of emergency care system components, respondents should come from a range of settings and might include policy-makers; hospital administrators; heads of nursing, surgery, medicine, critical care or emergency units; emergency care providers; pre-hospital care leaders; and emergency care researchers or epidemiologists.

World Health Organization. WHO Emergency Care System Assessment. Geneva: World Health Organization (*limited distribution, available upon request to europcb@who.int*).



Hospital Emergency Unit Assessment Tool (HEAT)

HEAT is a tool designed to evaluate the structure and key functions of an emergency unit (or any dedicated intake area for acutely ill and injured patients).

World Health Organization. Hospital Emergency Unit Assessment Tool (HEAT). Geneva: World Health Organization (*limited distribution, available upon request to europcb@who.int*).



Radiation Emergency: Hospital Preparedness Checklist

This tool is designed to assist emergency department clinical staff, hospital administrators and emergency managers in responding effectively to an influx of mass casualties due to external exposure to ionizing radiation or external and/or internal contamination with radio-activity.

World Health Organization (2022). Radiation Emergency: Hospital Preparedness Checklist. Geneva: World Health Organization (*limited distribution, available upon request to europcb@who.int*).



Health Resources and Services Availability Monitoring System (HeRAMS)

The HeRAMS Initiative aims to ensure that core information on essential health resources and services is readily available to decision makers at country, regional and global levels to support emergency response. Its mission is to support countries with the standardization and continuous collection, analysis, and dissemination of information on the availability of essential health services and resources down to the point of service delivery and to strengthen health information systems, particularly through the compilation, maintenance, regular update and continuous dissemination of an authoritative master list of health facilities. The tool provides snapshot of the resources found in the health facility at the time of assessment, looking at elements such as infrastructure, energy, waste management, equipment, medicines, and health workers.

World Health Organization (2024). Health Resources and Services Availability Monitoring System (HeRAMS). Geneva: World Health Organization; (<https://www.who.int/initiatives/herams>).



 Available in English

Checklists to assess vulnerabilities in health-care facilities in the context of climate change

Designed as a complementary tool to the WHO Guidance for climate-resilient and environmentally sustainable health-care facilities (presented in 1.1 in this catalogue), the primary purpose of this checklist document is to support users in establishing a baseline with regards to climate change resilience in health-care facilities.

World Health Organization (2021). Checklists to assess vulnerabilities in health-care facilities in the context of climate change. Geneva: World Health Organization; (<https://iris.who.int/handle/10665/340656>).



 Available in English

Rapid hospital readiness checklist: Interim Guidance

Harmonized health service capacity assessment in the context of the COVID-19 pandemic

World Health Organization (2020). Rapid hospital readiness checklist: Interim Guidance. Geneva: World Health Organization; (https://iris.who.int/bitstream/handle/10665/337038/WHO-2019-nCoV-hospital_readiness_checklist-2020.2-eng.pdf?sequence=1).



 Available in English

2. WHO assessment tools



2.2 Regional tools

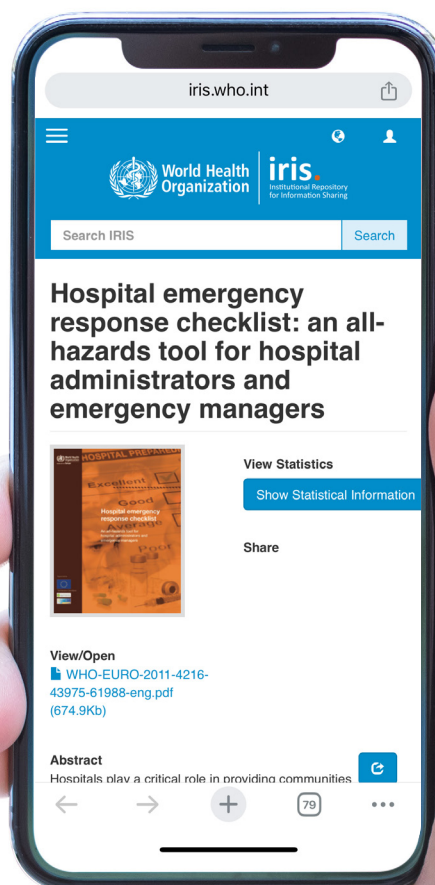
Hospital emergency response checklist: an all-hazards tool for hospital administrators and emergency managers

This document provides an all-hazards list of key actions to be considered by hospitals in responding to any disaster event.

WHO Regional Office for Europe (2011). Hospital emergency response checklist: an all-hazards tool for hospital administrators and emergency managers. Copenhagen: WHO Regional Office for Europe; (<https://iris.who.int/handle/10665/349374>).



 Available English, Estonian and Russian



2. WHO assessment tools

Strategic Risk Assessment for Health Care Facilities - STAR-H

Methodology to assess the most important risks facing a health facility and its organization in order to prioritize and manage them, thereby guiding actions, informing planning and providing evidence to strategies and policies for better prevention, preparedness, response and recovery; it also ensures early detection and actions, enabling health facilities and other stakeholders to be operationally ready for timely and effective response. Risk assessment is defined as the process of determining which risks should be prioritized for management by identifying threats and evaluating the level of risk in comparison with predetermined standards, objectives, consequences or other criteria.

Pan American Health Organization (2023). Strategic Risk Assessment for Health Care Facilities - STAR-H. Washington, D.C.: Pan American Health Organization; (<https://iris.paho.org/handle/10665.2/761>).



 Available in English, Portuguese and Spanish



Inclusion for Disaster Risk Management in Hospitals - INGRID-H

INGRID-H is an “assessment-action” methodology designed to improve the inclusion of people with disabilities in disaster risk management in the health sector, especially in hospital preparedness and response to emergencies and disasters. It focuses on improving the visibility, participation and autonomy of persons with disabilities in hospitals, as well as strengthening emergency and disaster response capacities to address their specific needs. The implementation of INGRID-H contributes to the fulfillment of the rights of persons with disabilities and helps build a safer, more inclusive and resilient health sector. It also seeks to reduce the risks that disproportionately affect vulnerable populations, such as persons with disabilities, during health emergencies and disasters. The INGRID-H methodology is aligned with international efforts and the principles of inclusion established in the United Nations Convention on the Rights of Persons with Disabilities.

Pan American Health Organization (2018). Inclusion for Disaster Risk Management in Hospitals INGRID-H. Washington, D.C.: Pan American Health Organization; (<https://iris.paho.org/handle/10665.2/817>).



 Available in English and Spanish



2. WHO assessment tools



Hospital readiness checklist for COVID-19: interim version

This checklist has been prepared with the aim of supporting hospital managers and emergency planners in achieving the above by defining and initiating actions needed to ensure a rapid response to the COVID-19 outbreak. The checklist is structured on eleven key components; under each component, there is a list of questions regarding the status of implementation of the recommended action specific to that component. Hospitals at risk of increased health service demand should be prepared to initiate the implementation of each action promptly. The section on “Recommended reading” lists selected tools, guidelines and strategies relevant to each component, as well as other supporting documentation.

Copenhagen: World Health Organization, Regional Office for Europe. Hospital readiness checklist for COVID-19: interim version, February 24, 2020;
(<https://apps.who.int/iris/handle/10665/333972>).

 **Available in English**



A practical tool for the preparation of a hospital crisis preparedness plan, with special focus on pandemic influenza / edited by Enrico Davoli, 2nd ed

This document aims to offer a practical tool for planning appropriate measures to be adopted by a hospital and/or more generally a health facility in order to be better prepared to face a critical situation.

Davoli E, WHO Regional Office for Europe (2007). A practical tool for the preparation of a hospital crisis preparedness plan, with special focus on pandemic influenza / edited by Enrico Davoli, 2nd ed. Copenhagen: WHO Regional Office for Europe;
(<https://iris.who.int/handle/10665/107809>).

 **Available in English and Russian**



Health facility seismic vulnerability evaluation: a handbook

This handbook aims to develop simple integrated procedures that will enable hospital administrators to perform a preliminary (qualitative/quantitative) hospital vulnerability assessment, to identify possible weak elements in the facility and the main aspects of vulnerability, and to set priorities for further in-depth investigations and possible mitigation measures.

WHO Regional Office for Europe (2006). Health facility seismic vulnerability evaluation: a handbook. Copenhagen: WHO Regional Office for Europe;
(<https://iris.who.int/handle/10665/107719>).

 **Available in English**





WHO trainings

3.1 Online trainings

3.2 Available face-to-face trainings

3. WHO trainings



3.1 Online trainings

Safe health facilities webinars

Series of webinars:

- Safe Hospital Webinar 1: Managing emergency and disaster risks in hospitals during a pandemic and hospital vaccine readiness (January 2021)
- Safe Hospital Webinar 2: Hospitals and national strategic plans for emergencies and disasters from all hazards (February 2021)
- Safe Hospital Webinar 3: Long-term care facilities and long-term care services in hospitals during a pandemic (March 2021)
- Safe Hospital Webinar 4: Health facilities post-COVID-19 and beyond: safe, functional, climate-resilient and environmentally sustainable (April 2021)

World Health Organization (2021). Safe Hospital Webinar Series. Geneva: World Health Organization. <https://www.who.int/activities/making-health-facilities-safe-in-emergencies-and-disasters#>



The course is offered in English



Management and facilitation of an After-Action Review (AAR)

An introductory course on the management and facilitation of an AAR following the response to an event of public health concern.

World Health Organization (2023). Management and Facilitation of an After-Action Review (AAR). In: openWHO [website]. Geneva: World Health Organization; (<https://openwho.org/courses/AAR-en>).



The course is offered in English and Ukrainian



Simulation exercise management

A course to introduce simulation exercises and their value as part of wider emergency preparedness to raise awareness among a non-technical audience.

World Health Organization. Simulation Exercise Management: Introduction. In: openWHO [website]. Geneva: World Health Organization; (<https://openwho.org/courses/simex>).



The course is offered in English, French and Ukrainian





3. WHO trainings



3.2 Available face-to-face trainings

The trainings described below are intended to be delivered on-the-ground and in person. They can be planned upon request. For further information and materials, please contact the Preparedness, Readiness and Capacity Building team in the Health Emergencies Programme at the WHO Regional Office for Europe at europcb@who.int.

Hospital Emergency Response Planning

The aim of this training is to provide information and guidance to develop or revise Emergency Response Plans for hospitals (H-ERPs) in WHO Member States. Participants will be guided through the planning process for the development of the H-ERP and its different components, incorporating the emergency response architecture and capacities to enable an effective and efficient response.

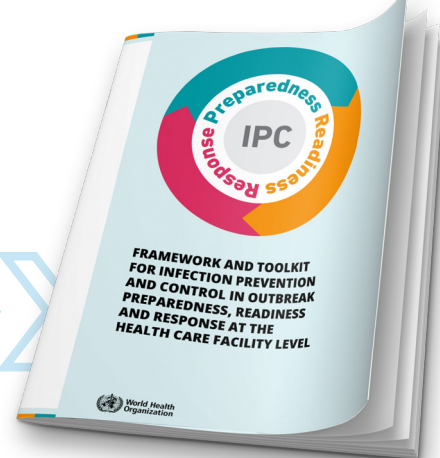
Hospital Safety Index (HSI) Training

This training familiarizes participants with the Hospital Safety Index (HSI) tool and its components, and how to use the tool to obtain a final HSI and specific indexes for structural safety, non-structural safety, and emergency and disaster management. The training will include both theoretical components in the classroom, and then a practical component where participants will practice applying the knowledge they learned in a real hospital setting. By the end of this training, participants should be equipped with the skills and knowledge to assess additional hospitals using the HSI methodology and tool.

HSI Training of Trainers (ToT)

This training program is designed to expand upon the standard HSI training to capacitate participants to roll out their own HSI trainings at sub-national level. This training will provide a light refresher on the HSI tool and its components, with an expansion or focus on additional hazards (such as chemical, biological, and radio-nuclear threats, earthquakes, etc) that may be relevant to the country context. Ideally the country has already implemented an initial HSI training prior to conducting this ToT and is already familiar with the concept and tool.

3. WHO trainings



Infection Prevention and Control in outbreak preparedness, readiness and response

The aim of this training is to guide National or Facility-based Infection Prevention and Control focal points to implement a set of IPC tools for preparedness, readiness and response to communicable diseases with community outbreak potential, which may be amplified in the health care setting.

- World Health Organization. (2022). Framework and toolkit for infection prevention and control in outbreak preparedness, readiness and response at the health care facility level. World Health Organization. <https://iris.who.int/handle/10665/361522>.
- World Health Organization. (2021). Framework and toolkit for infection prevention and control in outbreak preparedness, readiness and response at the national level. World Health Organization. <https://iris.who.int/handle/10665/345251>.

Infection Prevention and Control simulation on the implementation of standard and transmission-based precautions

The aim of this tabletop simulation is to improve knowledge on standard and transmission-based precautions and skills to implement them at the facility level including in resource-limited settings, examining critical considerations related to IPC such as patient flow, supplies, equipment, and health workers. It takes about one hour to complete the exercise be added as a module to any training related to hospital preparedness.

World Health Organization. Regional Office for Europe. (2024). Infection prevention and control simulation on the implementation of standard and transmission-based precautions: guide for players and facilitators. World Health Organization. Regional Office for Europe. <https://iris.who.int/handle/10665/376125>.

Building climate resilient WASH services in health-care facilities

The aim of the tabletop simulation is to improve knowledge and skills for the development of WASH services at the health-care facility level, including in resource-limited settings, and enhance the capacity of health-care facilities to protect and improve the health of their target communities in an unstable and changing climate. The tabletop simulation is designed for public health professionals, WASH specialists and hospital administration.

World Health Organization. Regional Office for Europe. (2024). Building climate resilient WASH services in health-care facilities: guide for players and facilitators. World Health Organization. Regional Office for Europe. <https://iris.who.int/handle/10665/376126>.



3. WHO trainings

Severe Acute Respiratory Infection (SARI) course

This practical blended learning course is designed to improve the knowledge and skills of healthcare workers to manage SARI through a series of online and in-house modules, lectures, simulations, and clinical scenarios. Technical skills built through this course include acuity-based triage, infection prevent and control measures while caring for patients with SARI, and initial patient survey and resuscitation using the ABCDE approach.

Basic Emergency Care Course (WHO/IFEM/ICRC)

WHO's Basic Emergency Care (BEC) course is clinical training aimed at frontline providers (doctors, nurses, clinical officers) who by necessity provide emergency care at their facilities, but have received fragmented formal training in the field. The course covers five major modules: The ABCDE Approach, Trauma, and Difficulty in Breathing, Shock, and Altered Mental Status. Each core component re-emphasizes the ABCDE approach as it relates to the management of varied emergency conditions.

BEC Training of Trainers and certification programme

The WHO's BEC Training of Trainers (ToT) Course is designed to train and certify participants to lead future BEC courses. The ToT course covers the fundamentals of teaching theory, reviews the overarching goals and purpose of the BEC, and provides specific guidance on giving lectures, teaching skills, and leading small group sessions.

Hostile Environment Surgical Training (HEST) course

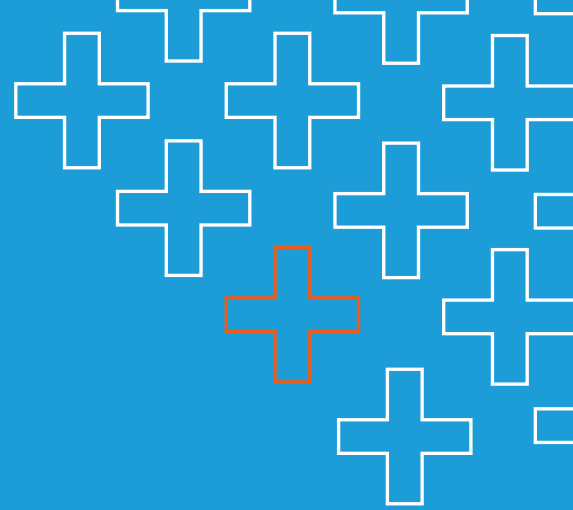
The HEST course delivers surgical training to surgeons and operating theatre practitioners operating in austere and conflict-affected environments. It covers all areas of surgery for injuries that may occur due to conflict or natural disasters, regardless of their specialism, to treat casualties and improve surgical outcomes, even if it requires skills outside of their specialism.

Webinars and Support on Clinical Management

WHO EURO can offer webinars focused the clinical management of specific diseases, including, but not limited to meningitis, COVID-19, Crimean-Congo hemorrhagic fever, etc. EURO can also provide support support to Member States on strengthening clinical pathways and developing standard operating procedures for clinical management of priority illnesses.

Strategic Health Services Management

This training, available upon request, designed to address the critical need for managerial competencies among healthcare professionals, particularly those in leadership roles within hospital settings. The program aims to enhance the efficiency and effectiveness of healthcare organizations by equipping leaders with essential managerial skills, especially for doctors transitioning into managerial positions.



The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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