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Health Action **in** Crises

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Integrating Emergency Preparedness and Response into Undergraduate Nursing Curricula



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Printed by the WHO Document Production Services, Geneva, Switzerland

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Acknowledgement

This document is based on the outcome of three WHO meetings on nursing and midwifery in crises and emergencies conducted by Health Action in Crises (HAC) and Health Systems and Services (HSS) in 2006 and 2007. The initiative of the HAC Department of Emergency Preparedness and Capacity Development and the HSS Department of Human Resources for Health for strengthening the role of nursing and midwifery in emergency preparedness and response has been supported by HRH Princess Muna Al Hussein, WHO Patron on Nursing and Midwifery, who inaugurated and participated in two meetings, held in Geneva and Amman.

Collaboration in the area of nursing in emergencies was initiated by Dr. Ala Alwan, the then ADG/HAC (October 2005 - February 2008). This document is the fruit of a series of consultations, meetings, discussion and reviews at the global, regional and country levels under his leadership and guidance.

The contribution of experts and staff participating in these meetings is gratefully acknowledged. Special thanks are due to Marcel Dubouloz, WHO Consultant; Elizabeth Weiner, Vanderbilt University; Fariba Al Darazi, WHO/EMRO; Jean Yan, WHO/HSS; Nada Al Ward, WHO/HAC; Sheila Bonito, University of the Philippines; Lisa Conlon, University of Technology/Sydney; Richard Garfield, WHO/HAC and Cheherezade Ghazi, BUE-Cairo.

The valuable contribution of the participants of the Workshop on Emergency Preparedness and Response in Nursing Curricula, held in Amman on 24-26 October 2007, is also acknowledged. They are:

Fathieh Abu- Moghli, Rateb Abu Zaid, Musa Al Hassan, Tawfiq Al Hennawi, Sharifa Al Jabry, Mohammed Al Khasawneh, Batool Al Muhandis, Manar Al Nabulsi, Hasan Al Omran, Hikmet Al Qubeilat, Ellen Al Safadi, Rula Al Saffar, Faisal Alwai, Arwa Al Zo'mot, Amal Attia, Awwad Darwish, Hania Dawani, Cheherezade Ghazi, Rawda Khouri, Rowaida Maaitah, Sawsan Majali, Omar Malkawi, Zakieh Nassar, Awatif Osman, Arwa Oweis, Ursula Rizk, Insaf Shaban, Ghean Shedied, Da'ad Shokeh.

Foreword

The past few years have witnessed many emergencies and natural disasters that have influenced the life of millions around the globe. A series of political and social crises has resulted in almost 25 million internally displaced people and more than 9 million refugees worldwide.

It is thus critical to find the right people with the right competencies at the right time and the right place to strengthen preparedness for, response to, and recovery from an emergency or a disaster. Nurses and midwives are frontline workers under stable conditions, but more so during situations of emergencies and crises, working both in pre-hospital as well as in hospital settings. In order to contribute to saving lives and promoting health under such difficult conditions, they need to have the right competencies. These include the ability to carry out rapid response including diagnosis, surveillance, emergency medical care, organization and logistics, containment and communications. Skills and expertise are also needed to create temporary efficient facilities.

With this in mind, WHO initiated the process of reviewing and upgrading the contribution of nursing and midwifery in emergencies through organizing a global consultation in collaboration with the International Council of Nursing, in November 2006. Among other things the global consultation recommended that Member States should include emergency nursing in pre-service nursing curricula, develop continuing education programmes to build the capacity of nurses and midwives in emergency preparedness, response and mitigation and adopt the set of core competencies for nurses in emergency and disaster preparedness and use it for developing educational programmes in disaster nursing.

Building on these recommendations, WHO in October 2007, in collaboration with other partners including the Jordanian Nursing Council, reviewed the role and contribution of nursing and midwifery in emergency preparedness and response and developed recommendations for integrating skills and competencies into undergraduate curricula.

In November 2007, WHO convened a follow-up meeting in Geneva for a core group of experts in nursing education and emergency preparedness and response to develop the competencies, content areas and topics of an undergraduate nursing curriculum in emergency preparedness and response. This document is the outcome of the core group meeting.

More work will be needed to test the recommended curriculum included in this document and to develop a plan for training and capacity building for integrating it into existing undergraduate nursing curricula, as well as the development of training packages.

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Background

Mounting an immediate and effective response to disasters and emergencies requires an agile workforce with diverse specialized skills. The World health report 2006¹ highlights the need to designate training institutions and programmes where these skills are generated and updated. Preparation training for emergencies should be made available to health personnel (especially physicians, nurses, midwives, public health practitioners, security officers and social workers) working in different healthcare delivery institutions, ministries of health, local governments and the military. Such training includes but is not limited to the necessary mix of scientific knowledge, technical skills, attitudes, behaviour, field know-how, familiarity with standard operating procedures and support platforms.

Nurses and midwives constitute the largest group and are frontline workers who provide a wide range of health services, which include promotive, preventive, curative, rehabilitative and supportive care to individuals, families and groups. Nurses and midwives are routinely involved in emergency care. However, they need to be adequately prepared to operate under a validated framework in order for them to be fully engaged in a comprehensive and systematic response to health crises. Most of the pre-service curricula in nursing and midwifery reviewed have identified deficiencies in the education of learners in emergency preparedness and response.

The WHO Regional Office for the Eastern Mediterranean (EMRO) convened the Sixth Meeting of the Regional Advisory Panel on Nursing and the Consultation on Disaster Nursing and Preparedness, Mitigation, Response and Recovery in Manama/Bahrain on 28-30 June 2004. That consultation recommended that disaster nursing is included in pre-service nursing curricula and continuing education programmes. The consultation produced two important products: a curriculum assessment tool and a list of core competencies for disaster nursing.

The World Health Assembly resolutions of May 2005 and May 2006 (WHA58.1 and WHA59.22) requested WHO to assist Member States in building local and national capacities, including transfer of expertise, experience and technologies among Member States in the area of emergency preparedness and response.

HAC convened in November 2006 a global consultation on the Contribution of Nursing and Midwifery in Emergencies. Among the recommendations of that consultation were the following:

- Accrediting bodies for nursing education should require the inclusion of emergency preparedness and response in the curricula of all levels of nursing training. Training in emergencies should be an integral part of each student's pre and in-service education.
- Member States should include emergency and disaster nursing in pre-service nursing curricula and develop continuing education programmes to build the capacity of nurses and midwives in emergency nursing preparedness and response.
- WHO should build regional capacity for the participation of nurses and midwives by encouraging the establishment of core competencies, standards for emergency pre-service and continuing education programmes, and protocols on emergency management.
- WHO should provide technical assistance in setting up a cost-effective platform for networking and knowledge exchange in emergency management.

1 http://www.who.int/whr/2006/whr06_en.pdf

In response to the above recommendations, the following initiatives were made:

1. The Jordanian Nursing Council started the process of the integration of emergency preparedness and response in the curricula of Jordanian nursing colleges and schools, in October 2007. This involved curriculum review, meetings of deans and faculty members and a regional workshop facilitated by international consultants and attended by regional experts. The process was technically supported by the three levels of the WHO and recommended that detailed curricular template be completed to assist in curriculum development.
2. The WHO Regional Offices for South-East Asia (SEARO) and the Western Pacific (WPRO) convened an informal meeting of health emergency partners and nursing stakeholders in Bangkok, Thailand, on 25-27 October 2007. The meeting produced a model for core emergency and disaster knowledge and skills required for all nurses to enable further curricular development of core educational/training material for nurses.

The outcomes of both initiatives were utilized as the basis for the current meeting, the outputs of which are reported below.

Rationale

The aim of this document is to identify key competencies, domains and implementation strategies for the integration of emergency preparedness and response into nursing and midwifery curricula.

Implementation Strategies

Individual countries should develop their own programmes at the national level according to the actual needs (country profile), the legal and regulatory context of the country, and the preference of existing training programmes. The following recommendations can be applied in a variety of ways to develop educational programmes in emergency preparedness and response.

The following strategies are recommended:

- **Curriculum development process**
 - Adopt a competency-based approach to curriculum development;
 - Integrate emergency preparedness and response into existing topics, or introduce as a separate course, or use a combination of both approaches;
 - Ensure intersectoral collaboration (academic bodies, ministries of health, civil defence, professional organizations and associations);
 - Ensure coherence between the various educational levels and training programmes (undergraduate, graduate, continuous professional development);
 - Ensure harmonization of the nursing and midwifery curricula between the various educational institutions at the country level;
 - Encourage a multidisciplinary approach to the development of the nursing and midwifery curriculum geared towards emergency preparedness and response with other existing health-related curricula;
 - Develop mechanisms for the monitoring of implementation and the sustainability of the educational programme.

- **Faculty preparation and training**
 - Plan and implement regional training of trainers courses and workshops to prepare national trainers;
 - Support trained national trainers to implement national training of trainers courses and workshops for faculty members to facilitate the re-orientation of the nursing curricula to the concept of emergency preparedness and response.
- **Establishment of regional networks for emergency preparedness and response nursing**
 - Establish a system for ongoing interaction among members to strengthen collaboration and mentoring;
 - Collaborate with others in establishing the research agenda for emergencies, disasters and other crises;
 - Develop and share tools, materials and nursing training programmes, services and research in emergencies, disasters and other crises;
 - Identify best practice standards and develop evidence-based guidelines for nursing practice in emergencies, disasters and other crises;
 - Work with organizations (including the International Council of Nursing (ICN), WHO, leading stakeholders) to implement and validate emergency, disaster and other crises nursing competencies;
 - Implement mechanisms for timely and effective sharing of information and other resources on an ongoing basis, including times of crisis;
 - Disseminate the work of the network to inform and influence the development of emergency, disaster and other crisis management policy and resource allocation.

Recommendations

The following recommendations are made:

- **Health Action in Crises**
 - Coordinating among the concerned departments in headquarters and regional offices to achieve consensus on the guidelines and on the mechanisms for their implementation.
 - Promoting, in coordination with regional offices, of the adoption and adaptation of these guidelines at the national level and the facilitation of interregional partnerships.
 - Selecting and disseminating useful material to be used as references for the nursing faculties to develop their national nursing curricula on emergency preparedness and response.
- **WHO Regional Offices**
 - Advocating for emergency preparedness and response in nursing and midwifery;
 - Developing a regional network on emergency preparedness and response for nurses and midwives;

- Providing regional guidelines for the development of curricular elements;
- Supporting educational activities at the regional (training of trainers, workshops) and country levels;
- Assisting countries in the development of training packages and learning materials for the implementation of emergency preparedness and response for nurses and midwives.
- Monitoring of ongoing training activities and suggestions for further adaptation according to identified needs.

Recommended Core Competencies, Content Areas and Topics for Integrating Emergency Preparedness and Response into the Undergraduate Nursing Curricula

Competencies	Content areas	Topics
Conceptual Frameworks		
	<ul style="list-style-type: none"> • Public safety and risk management • Emergency preparedness programmes • Unified incident command system • The planning process for emergencies • The role of international organizations in the management of emergencies 	<p>Definitions of key terms: community, competencies, complex emergencies, coping capacity, coping mechanisms, damage assessment and needs analysis (DANA), disaster, early warning systems, emergency management, emergency operation centre, emergency preparedness, emergency situations, hazards, humanitarian crisis, impact, lifelines, mass casualty incidents, mitigation, prevention, readiness, recovery, resilience, response plan, risk communication, risk reduction, risks, standard operating procedures, surge capacity and surge capability, vulnerabilities, vulnerability reduction, vulnerable groups (better to use the terminology groups with specific vulnerabilities)</p> <p>Conceptual framework of community risk management and public safety</p> <ul style="list-style-type: none"> • The risk management framework as a process: process and steps (input, process, outputs and outcomes of each step); activities; stakeholders; the application of risk management principles at community level • Hazards and their characteristics • The community and its five elements (people, property, services, livelihoods and environment) – overview: vulnerabilities, resilience, coping mechanisms, main characteristics that must be considered; importance of the community for developing response plans and recovery plans • The lifelines and their importance in emergency situations • The formula risk is proportional to hazard x vulnerabilities/readiness and its application and implications for developing risk reduction plans or programmes • The use of these concepts in risk management and public safety: public safety and sustainable development; mitigation, preparedness, response and recovery (overview); community education and community participation • Vulnerability analysis: the vulnerabilities of the community's five elements

Competencies	Content areas	Topics
Conceptual Frameworks		
		<p>The elements of emergency preparedness</p> <ul style="list-style-type: none"> • Emergency preparedness conceptual framework and the ten main components • The main programmes and activities in emergency preparedness • The main strategy: all hazards approach; multi-sectoral cooperation; prepared community; holistic approach: prevention, mitigation, response, recovery • The components of readiness at the various levels (national, sub-national and community) of the health sector; for institutions and for individuals • The main systems that are necessary for mass casualty management (overview) – and that need to be developed in the emergency preparedness process (overview) • Policy-making (assessing needs for policy, preparation of the policy as a process, implementation and monitoring) and guidelines issuing for the implementation of the policy (managerial, administrative and technical) • The main outputs of emergency preparedness: vulnerability reduction plans, response plans, recovery plans, training and education programmes, policy development, risk reduction (flow chart integrating these elements) • Flow charts for integrating emergency preparedness and emergency management <p>Planning process for emergencies</p> <ul style="list-style-type: none"> • The principles of the planning process for developing emergency response plan and contingency plans <p>The main roles of the health sector in emergency situations</p> <ul style="list-style-type: none"> • Assess risk • Anticipate the problems (for public health and for health needs of individuals and groups) • Reduce risks (especially health risks) • Communicate the risks and change behaviour • Reduce vulnerability and strengthen resilience (community, staff, infrastructure and health care facilities)

Competencies	Content areas	Topics
Conceptual Frameworks		
		<ul style="list-style-type: none"> • Prepare for emergencies • Plan, train, exercise, evaluate • Build capacity • Set up early warning systems • Communicate the risks (after impact or during early warning phase) • Respond to emergencies • Provide leadership in the health sector • Assess the health consequences and impact on health services • Determine the needs • Protect staff and facilities • Provide health services • Communicate the risks • Mobilize resources • Manage logistics (necessary for health programmes) • Manage health information (including public information on health issues) • Manage human resources (including training and exercises) • Recovery and rehabilitation • Assess long-term health needs • Provide long-term health services • Restore health services, facilities and health systems
Competency I: Ethical and Legal Issues, and Decision-Making		
<p>Demonstrate an understanding of the challenges to ethical and legal decision-making, critical thinking and care prioritization in conflict and emergency situation</p>	<ul style="list-style-type: none"> • Emergency preparedness programmes in the country • National and sub-national emergency response and recovery plans • Emergency management • Professional, ethical and legal frameworks • Clinical judgment • Documentation accountability 	<p>Existing emergency preparedness programmes in the country</p> <ul style="list-style-type: none"> • The health sector <ul style="list-style-type: none"> – The stakeholders and their roles and functions in emergency preparedness – The contribution of the other sectors to the management of health in emergencies. The cooperation mechanisms with other sectors and the contribution of the other sectors to health sector preparedness programmes – Main areas in which the health sector has a key role in emergency preparedness

Competencies	Content areas	Topics
Competency I: Ethical and Legal Issues, and Decision-Making		
<ul style="list-style-type: none"> • Locate and describe the emergency response plan for the place of employment and its role in community, state and regional plans • Apply an ethical and nationally approved framework to support decision-making and prioritization needed in an emergency situation • Demonstrate clinical judgment and decision making skills in assessing the potential for appropriate, timely individual and community care during and after emergency situations • Apply critical thinking and problem-solving skills in planning the essential nursing care for individuals, families, special groups at the pre-emergency, emergency and post-emergency phases • Accept accountability and responsibility for one's own professional judgment and actions 		<p>The Inter-sectoral emergency response plans and contingency plans</p> <ul style="list-style-type: none"> • The overall organization at national level and sub-national level: institutions involved, agencies, roles, responsibilities, command mechanisms <ul style="list-style-type: none"> – Unified Incident command system – Coordination mechanisms with the Emergency Obstetric Care (EOC), the Emergency Medical Services (EMS) and hospitals (including networks of hospitals when applicable) <p>Health sector response plans: national level, sub-national level and community level</p> <ul style="list-style-type: none"> • The health sector plans and organization for pre-hospital activities • Command structure, organizational chart <ul style="list-style-type: none"> – The roles and functions of the various stakeholders (private and public) of the health sector (especially the various departments of the ministry of health or the public institutions of the health sector at local level and community level). The concept of integration strategy for health sector – Staff, roles and functions – Resources mobilization and redistribution – Communications – Equipment and logistics – The role of the Emergency Medical Services and the dispatching of the patients • The medical and surgical activities (overview) <ul style="list-style-type: none"> – The role of the primary health care system and community health centres – Training and staff – The role of private sector – The role of volunteers – The upgrading of referral institutions • Professional, ethical and legal frameworks

Competencies	Content areas	Topics
Competency 1: Ethical and Legal Issues, and Decision-Making		
		<ul style="list-style-type: none"> – Scope of practice; legal mandate; country’s laws and regulations; policies – Human rights – Cultural sensitivity • Clinical judgment <ul style="list-style-type: none"> – Decision-making before, during and after emergencies – Critical thinking and problem solving in emergency situations • Documentation accountability
Competency 2: Care Principles		
<p>Apply principles of care provision and management in an emergency situation</p> <ul style="list-style-type: none"> • Describe at the pre-emergency, emergency and post-emergency phases the essential nursing care • Identify relevant principles of nursing practice in emergency situations • Act as a resource for individuals, families and communities in coping with changes in health, disability and with death • Assume a contributive role in the delivery of health care before, during and after an emergency situation whenever necessary 	<ul style="list-style-type: none"> • Principles of nursing care and practice in emergency situations • Logistics and materials • Health care facilities • Working with limited or damaged resources • Principles of effective leadership 	<ul style="list-style-type: none"> • Principles of nursing care and practice in emergency situations <ul style="list-style-type: none"> – First aid, Basic Life Support (BLS), Advanced Life Support (ALS), Cardio-Pulmonary Resuscitation (CPR) – Wound assessment and care, basic surgical skills – Triage and rapid assessment – Pain management – Psychosocial interventions <p>Logistics in the management of the response</p> <ul style="list-style-type: none"> • The challenges in emergency situations for logistics • The systems that can be developed in emergency preparedness and the supply chain logistics <p>Hospitals and health care facilities</p> <p>a. Components of the hospital's emergency response plan</p> <ul style="list-style-type: none"> – The incident command group and the hospital's emergency incident unit – The alert and its processing – The levels of activation of the emergency response plan and the activation mechanisms – The Job Actions Sheets (JAS – individual actions cards for specific functions) – The management of personnel and the call back procedures – The standard operating procedures

Competencies	Content areas	Topics
Competency 2: Care Principles		
		<ul style="list-style-type: none"> – The emergency department and the special “disaster triage area” – Logistics – Special areas: for families and relatives; for public figures and the media; for dead people – The preparation of special teams for outside medical work (triage teams, disaster medical teams, trauma teams, etc.) – Security/securing the hospital and its immediate environment, access roads – Communications – Management of information; risk communication; public information – Psychosocial support activities – Ancillary services – Plan maintenance; monitoring; revision mechanisms – Samples of forms and charts – The contingency plans or contingency procedures b. Training programmes for the staff and simulation exercises for the hospital’s Emergency Response Plan (ERP) <ul style="list-style-type: none"> – The different training programmes for the various functions and categories of staff c. The hospitals’ emergency department for mass casualty management <ul style="list-style-type: none"> – The emergency department <ul style="list-style-type: none"> • Functions in emergency care delivery, organizational issues, standard operating procedures, security • Staffing; training; trauma care system – The disaster reception area, also called disaster triage area (if separated from the emergency department) d. Continuity of operations for hospitals; recovery and rehabilitation activities in hospitals after disasters and crises (including internal disasters) <ul style="list-style-type: none"> – Damage assessment and control and rehabilitation of critical services – Partial or complete evacuation – Coordination with other hospitals, the Emergency Obstetric Care and the national Emergency Command and Control unit (ECC)

Competencies	Content areas	Topics
Competency 2: Care Principles		
		e. Principles of vulnerability analysis applied to hospitals <ul style="list-style-type: none"> – The vulnerability analysis process applied to hospitals and to emergency planning for hospitals. Concept of safer hospitals
Principles of effective leadership		
Competency 3: Needs Assessment and planning		
Carry out a relevant and systematic safety and needs assessment during and after an emergency for self, the response team and the victims <ul style="list-style-type: none"> • Identify main elements in country profile useful for emergency preparedness and managing the response • Contribute to damage assessment and needs analysis process in the immediate aftermath of the impact and in later stages 	<ul style="list-style-type: none"> • Types of emergencies, disasters and other crisis • Country profile and national hazards mapping • Rapid assessment of Health needs, identification of health risks and safety issues 	Types of emergencies <ul style="list-style-type: none"> • Different potential scenarios (actual context of the country) for emergencies, disasters and mass casualties incidents (overview) • Consequences on public health (direct and indirect) Country profile <ul style="list-style-type: none"> • Introduction to the notion of country profile and presentation of the epidemiology of disasters, crises and mass casualties incidents in the country over the last decades (country specific) • Other health priorities in the country (to link emergency preparedness with risks identified by the ministry of health) and the WHO concept of essential services • The general context (laws, regulations, ethical codes) for emergency management Damages assessment and needs analysis in emergency situations <ul style="list-style-type: none"> • Multi-sectoral damage and needs assessment (contribution of the health sector) <ul style="list-style-type: none"> – Identification of problems (prioritizing, anticipating, direct and indirect consequences, etc.); available resources; possible solutions – Monitoring mechanisms and follow-up activities • Rapid health needs assessments <ul style="list-style-type: none"> – How, when, who, why, what, to whom to report, what to develop for responding to needs and rehabilitating critical services – Methods, systems, forms, training of staff – Follow-up and monitoring of the situation – WHO references values; benchmarks; indicators to be used

Competencies	Content areas	Topics
Competency 4: Nursing Care		
<p>Implement nursing care in an emergency situation for individuals, families, groups with vulnerabilities and communities</p> <ul style="list-style-type: none"> • Perform nursing activities according to scientific principles in an unexpected or rapidly changing situation • Evaluate and document progress towards expected outcomes 	<ul style="list-style-type: none"> • Basic therapeutic interventions in emergencies • Documentation, reporting and recording 	<ul style="list-style-type: none"> • Basic therapeutic interventions in emergencies <ul style="list-style-type: none"> – First aid – Basic Life Support – Oxygen administration and ventilatory support – Nutrition – Moving and transferring casualties – Administration of medications – Administration of immunizations – Continuous monitoring of patient condition – Adapting nursing procedures to the existing situation – Nursing care in various types of emergencies and disasters (natural disasters, epidemics, chemical, biological, radiological, nuclear and explosive incidents) – Nursing care in complex emergencies <p>Principles of trauma care and emergency care management in Mass Casualties Incidents</p> <ul style="list-style-type: none"> • The WHO Department of Injuries and Violence Prevention Guidelines for essential trauma care and recommendations (especially for hospitals in rural areas with limited equipment and trained staff: surge capacity) • Documentation, reporting and recording
Competency 5: Safety and Security		
<p>Apply nursing techniques appropriate to the maintenance of a safe environment</p> <ul style="list-style-type: none"> • Ensure the safe administration of treatment and their therapeutics 	<ul style="list-style-type: none"> • Safety and security of casualties, care providers and the environment • Infection control measures • Decontamination • Use of protective personal equipment 	<p>Chemical incidents</p> <ul style="list-style-type: none"> • Special issue: security and safety • Site organization (especially zoning of the site) • Medical activities on-site in the different zones • Decontamination systems and procedures • Hospital preparedness • Food poisoning centres • Slow onset chemical incidents (chronic exposure); early detection; monitoring of the environment; follow-up of health issue (use of epidemiology)

Competencies	Content areas	Topics
Competency 5: Safety and Security		
<ul style="list-style-type: none"> • Implement universal precautions for the control of infection, safe administration of immunization, and decontamination • Assess the safety and security issues for self, the response team and the victims in an emergency situation 		<p>Protective equipment</p> <ul style="list-style-type: none"> • Various types of protective equipment for different situations: communicable diseases, chemical incidents • Training and preventive measures • Standard procedures for self-protection (especially infection barrier) <p>Communicable diseases in emergency situations, and epidemics</p> <ul style="list-style-type: none"> • Focus on communicable diseases in natural disasters <ul style="list-style-type: none"> – Epidemiology of communicable diseases in natural disasters – Rapid assessment and prevention <ul style="list-style-type: none"> • Data to be collected, methods, systems (reporting, etc.) see also epidemiology and management of information in public health • Importance of environmental health and of nutrition (especially in children under five; malnutrition contributes to mortality due to communicable diseases) • Health services and infrastructure (access to, supplies of vaccines, medicines, etc.) – International cooperation (see section of information management) – Early warning and surveillance systems (see section on epidemiology and management of information) – Assessing risk for outbreaks (country specific): potential sources, mode of transmission, etc. – Communicable diseases of public health concern (country specific): vaccine preventable diseases, environmental protection, vector-borne diseases and other communicable diseases of public health significance – Data and data management systems (see section “epidemiology”) – Epidemiology – Infections barrier and precautions – Community education (oral rehydration, etc.) – Control and containment measures strategies • Outbreak control • Early detection of major communicable diseases in emergency situations • Special case of pandemic avian flu (WHO guidelines; contingency plan and procedures: country specific)

Competencies	Content areas	Topics
Competency 5: Safety and Security		
		<p>Biological, Chemical, Radiological, Nuclear Emergencies (BCRNE)</p> <ul style="list-style-type: none"> • Biological threat: the existing threat (types of agents, etc.); the potential consequences on health; the national response plan; protective equipment for health staff • Chemical incidents resulting from terrorist attack (see chemical incidents) • Radiological and nuclear threat: the existing threat (types of agents); the potential consequences on health; the national response plan; preventive and protective measures • Early detection of such situations
Competency 6: Communication and Interpersonal Relationships		
<p>Apply principles of communication and interpersonal relationships in an emergency situation</p> <ul style="list-style-type: none"> • Consult with other health care professionals and relevant organizations/agencies when individual or group needs fall outside the scope of nursing practice • Use effectively emergency communication equipment during an emergency • Identify and utilize relevant documentation for assessments, interventions, nursing actions and outcomes during and after an emergency 	<ul style="list-style-type: none"> • Principles of disaster and risk communication (e.g. relationship with media, public information) • Principles of interpersonal communication working within a team and command structure • Principles of telecommunication • Principles of recording, reporting and documentation during emergencies • Crisis intervention • Psychosocial reactions and therapeutic support including counselling 	<p>Management of information for health related issues in emergency situations</p> <ul style="list-style-type: none"> • Health information systems and their use for emergency preparedness and during the response (strengths, weaknesses, limitation of its potential use in emergency situations) – real country context <ul style="list-style-type: none"> – Selection of indicators and benchmarks for emergency situations – Development of standardized forms for emergency situations and reporting mechanism (routine reporting, zero reporting, immediate reporting, etc.) • Principles of risk communication • Relationships with media • Public information and education in emergency situations • The various communication tools in emergency situations (country specific) and their use by the health sector staff <p>Psychosocial support programmes (for individuals, families, specific groups, communities, rescue and medical staff and others)</p> <ul style="list-style-type: none"> • Epidemiology of psychosocial consequences of disasters • Basic psychology concepts in connection with emergency situations • First aid in psychological support during the immediate post-impact and other types of crisis interventions • Contribution to the management of an information and support centre

Competencies	Content areas	Topics
Competency 6: Communication and Interpersonal Relationships		
<ul style="list-style-type: none"> • Initiate and develop therapeutic relationships through the use of appropriate communication and interpersonal skills with patients and their families • Respond to reactions of loss, fear, panic and stress that victims, families and others may exhibit during an emergency situation • Describe principles of risk communication 		<ul style="list-style-type: none"> • Support programmes for the health sector staff • Contribution to the development of outreach programmes • Contribution to the recovery process • Information and support centre (24/24 helpline, etc.): roles, functions, staffing
Competency 7: Public Health		
<p>Participate actively in health maintenance and promotion</p> <ul style="list-style-type: none"> • Identify possible threats and their impact on the community • Recognize community health issues related to the impact of emergencies on water, food supplies, shelter and protection of displaced persons (as a consequence of disasters) • Identify the knowledge and health practices of communities involved in an emergency situation 	<ul style="list-style-type: none"> • Epidemiology tools in emergencies (e.g. sentinel site surveillance, nutritional surveys) • Preparation and response towards a variety of threats: <ul style="list-style-type: none"> – Communicable and non communicable diseases – Displaced populations – Damage to infrastructure • Environmental health including water and sanitation • Maternal and reproductive health, newborn and child health • Public health in complex emergencies 	<p>The main public health problems in emergency situations</p> <ul style="list-style-type: none"> • Changes in the environment; population displacement; loss of access to lifelines; loss of services; interruption of immunization and other routine programmes ; loss of workforce; massive surge in demand for services • Management of information (including collection of data and preparation of public information messages, education of community) • Psychosocial issues • Management of the dead and the missing • Communicable diseases, nutrition, security, gender violence, groups with specific vulnerabilities <p>Epidemiology as a tool for decision-making and programming in emergency situations</p> <ul style="list-style-type: none"> • Epidemiology of disasters and in disasters • Basic elements of epidemiology • Surveys, sampling methods and cluster techniques: indication for and use of in emergency situations • Data in emergency situations

Competencies	Content areas	Topics
Competency 7: Public Health		
<ul style="list-style-type: none"> Utilize resources available for health promotion and health education in an emergency situation 	<ul style="list-style-type: none"> Principles of health education during times of crisis and evaluation of community impact Role of nurses in the recovery process Nutritional programmes Management of the dead and the missing Identification of groups with special vulnerabilities (e.g.: children, pregnant women, elderly, special needs, disabled) 	<ul style="list-style-type: none"> Evidence-based decision making and programming Surveillance systems: routine surveillance; surveillance adapted to emergency situation (see also management of information) – partly country specific; early warning systems; sentinel site surveillance Special surveillance system for biological, chemical, radiological and nuclear emergencies (including early warning). Training of health sector staff <p>Environmental Health</p> <ul style="list-style-type: none"> Adverse consequences of the various types of emergency situations on the environment Baseline data, monitoring activities, quality improvement of environmental factors The concept of Environmental Health (including education of community, training of staff, environmental health surveillance) Vector control programmes Sheltering of people and temporary settlements Water and sanitation (especially for displaced persons) Waste disposal (including hospital wastes and other special dangerous wastes) Rehabilitation of lifelines Inter-sectoral cooperation and contingency plans (role of the health sector) for environmental health
		<p>Reproductive Health in emergency situations</p> <ul style="list-style-type: none"> Existing routine services (country specific) in connection with the concept of Reproductive Health, especially: maternal and child health care; sexually transmissible diseases and HIV; family planning Policy and regulations (including on lactation, etc.) Emergency obstetric services in emergency situations <ul style="list-style-type: none"> Community participation and education Newborn care Impact of the emergency situation on these routine services and assessment of the need to immediately start with a reproductive health programme

Competencies	Content areas	Topics
Competency 7: Public Health		
		<ul style="list-style-type: none"> • Concept of Minimum Initial Service Package/Reproductive Health (MISP-RH) programmes in emergency situations: safe motherhood (including delivery); sexually transmissible diseases (HIV included); family planning; sexual and gender based violence; security and protection of children and women <p>The most frequent health problems in refugee/IDP situations</p> <ul style="list-style-type: none"> • Threats to health <ul style="list-style-type: none"> – Changes in the environment and in the access to lifelines and medical care; loss of services and disruption of public health programmes (such as routine immunization) – Exposition of refugees to new communicable diseases (present in the host population); importation of new communicable diseases (not present in the host population) – Dependency from external assistance – Insecurity and limited social organization of the refugee community (possibility of minority groups, tensions between the groups); loss of work, loss of income, and inactivity – Limited access to food, water of reasonable quality and health care services – Poor sanitation; overcrowding – The refugees' lack of education on hygiene, sanitation, prevention of communicable diseases, feeding practices, etc. • Communicable diseases: measles; diarrhoeal diseases; acute respiratory infections; malaria; tuberculosis; others (situation specific: meningitis, yellow fever, hemorrhagic fever, etc.) • Nutrition and food in terms of quantity, quality, security and safety <ul style="list-style-type: none"> – Malnutrition (chronic, acute, specific deficiencies): Marasmus; Kwashiorkor; stunting; protein deficiencies; micronutrient deficiencies • The various types of programmes; • Assessment of needs <ul style="list-style-type: none"> – Individuals, special groups and community needs

Competencies	Content areas	Topics
Competency 7: Public Health		
		<ul style="list-style-type: none"> – Strategy, methods, staff, logistics – Food availability, food requirement, food baskets • Monitoring of the situation and of the impact of programmes • Trauma • Psychosocial <ul style="list-style-type: none"> – Psycho-traumatic events and situations – Psychological consequences of social changes and loss of social network • Violence and torture • Gender-based violence and sexual violence • Disabled and handicapped people • Obstetrical care and delivery system • Non-communicable diseases • Groups with special vulnerabilities <p>Recovery process</p> <ul style="list-style-type: none"> • Community recovery process <ul style="list-style-type: none"> – Early rehabilitation of critical services – Community recovery process – Health institutions' contribution to the recovery process (importance of community health workers at the community level) – Mainstreaming emergency management into development • Health sector recovery <p>Nutritional programmes in emergencies (see also section on refugees/IDPs)</p> <ul style="list-style-type: none"> • The various methods to assess food needs and nutritional status in emergency context (anthropometric methods: their strengths and weaknesses, etc.) such as rapid nutritional assessments, nutritional surveys, etc. • The ways emergency situations can contribute to the imbalance in food access and the development of malnutrition in individuals (communities) • Educational programmes for the beneficiaries and the community

Competencies	Content areas	Topics
Competency 7: Public Health		
		<ul style="list-style-type: none"> • Management of food poisoning as the result of the emergency situation or as the cause of the emergency situation: potential causes; health consequences and their management; early warning system for food poisoning; managing the response; public information and education • Relationships between food, nutritional status and communicable diseases <p>Management of the dead and the missing and mass fatality situations</p> <ul style="list-style-type: none"> • The health sector’s contribution to the management of the dead and the missing in the various phases: recovery of dead bodies, storage; identification process • Preparation of public information messages • Ethical and legal issues • Cultural and religious issues <p>Non-communicable disease</p> <ul style="list-style-type: none"> • The local context (country specific) for non-communicable diseases • How emergency situations can disrupt access to care, medicines, or other resources that are needed for the management of non-communicable diseases • Integration of non-communicable diseases in emergency preparedness activities and in the response and recovery plans • Integration of non-communicable diseases programmes in the emergency response and the rehabilitation of health systems
Competency 8: Health Care systems and policies in emergency situations		
<p>Describe the elements of the health care systems and policies in emergency situations</p> <ul style="list-style-type: none"> • Participate in the development of emergency plans in various settings 	<ul style="list-style-type: none"> • Legal authority of public health agencies in emergencies • Organization of pre-hospital activities • Management of evacuations and dispatching of casualties • Impact of emergency situations on access to resources 	<p>Organization of pre-hospital activities</p> <ul style="list-style-type: none"> • The intersectoral overall organization for mass casualties incidents (country specific) at community level <ul style="list-style-type: none"> – The contribution of the other sectors, and especially the health sector to the inter-sectoral response plan – The on-site organization and management; the Incident Command Post (ICP); the Emergency Obstetric Care: the management of the resources; information; communications; logistics and security

Competencies	Content areas	Topics
Competency 8: Health Care systems and policies in emergency situations		
<ul style="list-style-type: none"> • Recognize the legal authority of public health agencies to take action, to protect the community from threats, including isolation, quarantine and required reporting and documentation • Recognize the impact of emergency situations on access to resources and how to identify additional resources • Recognize the impact of emergency situations on the potential outbreak of communicable diseases • Recognize the general principles of triage 	<ul style="list-style-type: none"> • Community based management during emergencies (non-governmental organizations, volunteers, primary health care) • General principles of triage • Social mobilization 	<p>On-site medical activities and services delivery</p> <ul style="list-style-type: none"> • Sectorisation of the site and the reconnaissance process • Medical and non-medical triage activities and processes • Life-saving procedures and techniques (country specific) • The roles, functions, and organization of specialized teams such as trauma teams, mobile medical teams • Emergency nursing care • Advance medical posts • Transportation <ul style="list-style-type: none"> – The process and the logistics – The different modes of transportation – Medical evacuation centres • Volunteers and non-governmental organizations • Uninjured survivors • The local community <p>Dispatching of victims the contribution of Emergency Medical Services in the management of the response in emergency situations</p> <ul style="list-style-type: none"> • Dispatching of patients and medical regulation <p>Search and Rescue activities and systems</p> <ul style="list-style-type: none"> • The Search and Rescue (SAR) techniques (rescue techniques and methods for the localization of survivors, extrication techniques, modern rescue techniques)
<p>Note: * Each country has its own references for terminology. Nevertheless it is strongly recommended to adopt the terminology used by the United Nations International Strategy for Disaster Reduction and by HAC (<i>Mass casualty management systems. Strategies and guidelines for building health sector capacity</i>. Geneva, World Health Organization, 2007). Please see the definitions at the end of this document.</p>		

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Annex 2

Definitions

Capability • Qualitative assessment of human and material resources; i.e. ability or competence or authority; how capacity can be used (EHA/EMRO, MPHR - 2, 2006).

Capacity • Quantitative assessment of human and material resources; i.e. number or volume or size (EHA/EMRO, MPHR - 2, 2006).

Community • A group of people with a commonality of association and generally defined by location, shared experience, or function. A community (with its five elements: people, property, services, livelihoods, and environment) has four major features. They: own common assets for responding to an emergency (police, fire, hospital etc); have authority for decision making delegated by a higher authority; have responsibility for their own financial and human resources; are accountable for their actions. MCM Systems (WHO/HAC 2007).

Competency • The ability of the nurse to integrate and apply the knowledge, skills, judgement, and personal attributes required to practice safely and ethically in a designated role and setting (Alberta Association of Registered Nurses, 2000).

Complex emergencies • Situations featuring armed conflict, population displacement and food insecurity with increases in acute malnutrition prevalence and crude mortality rates (CDC).

Complex humanitarian emergencies • A humanitarian crisis in a country, region or society where there is a total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single agency and/or the ongoing United Nations country programme (IASC, 1994).

Coping capacity • The means by which people or organizations use available resources and abilities to face adverse consequences that could lead to a disaster. In general, this involves managing resources, both in normal times as well as during crises or adverse conditions. The strengthening of coping capacities usually builds resilience to withstand the effects of natural and human-induced hazards (UN ISDR).

Coping mechanisms • Skills used to reduce stress. In psychological terms, these are consciously used skills and defense mechanisms are their unconscious counterpart (http://en.wikipedia.org/wiki/Coping_skill).

Damage Assessment • The process of determining the magnitude of damage to and the unmet needs the private sector and the public sector caused by a crisis (The dictionary of Homeland Security and Defense, 2006).

Early warning • The provision of timely and effective information, through identified institutions, that allows individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response (http://www.unisdr.org/eng/about_isdr/basic_docs/LwR2004/Annex_1_Terminology.pdf).

Early warning systems • A chain of concerns, namely: understanding and mapping the hazard; monitoring and forecasting impending events; processing and disseminating understandable warnings to political authorities and the population, and undertaking appropriate and timely actions in response to the warnings.

Disaster • A serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which 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 (UN ISDR).

Emergency • An event, actual or imminent, which endangers or threatens to endanger life, property or the environment, and which requires a significant and coordinated response (MCM Systems – WHO/HAC 2007).

Emergency management • The organization and management of resources and responsibilities for dealing with all aspects of emergencies, in particularly preparedness, response and rehabilitation. Emergency management involves plans, structures and arrangements established to engage the normal endeavours of government, voluntary and private agencies in a comprehensive and coordinated way to respond to the whole spectrum of emergency needs. This is also known as disaster management (UN ISDR).

Emergency Operations Centre (also command centre, situation room, war room, crisis management centre) • The physical location where an organization comes together during an emergency to coordinate response and recovery actions and resources. It is where the coordination of information and resources takes place and where coordination and management decisions are facilitated (<http://www.davislogic.com/EOC.htm>).

Emergency preparedness • A programme of long-term activities whose goals are to strengthen the overall capacity and capability of a country or a community to manage efficiently all types of emergencies and bring about an orderly transition from relief through recovery, and back to sustained development. It requires that emergency plans be developed, personnel at all levels and in all sectors be trained, and communities at risk be educated, and that these measures be monitored and evaluated regularly. Community Emergency Preparedness (WHO 1999).

Emergency response plan • A plan which is developed to establish policies, procedures and an organizational hierarchy for response to emergencies. It describes the roles and operations of the concerned units and personnel during an emergency.

Hazard • Potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. Hazards can include latent conditions that may represent future threats and can have different origins: natural (geological, hydro-meteorological and biological) or induced by human processes (environmental degradation and technological hazards). Hazards can be single, sequential or combined in their origin and effects. Each hazard is characterized by its location, intensity, frequency and probability (UN ISDR).

Humanitarian crisis • An event or series of events which represents a critical threat to the health, safety, security or wellbeing of a community or other large group of people, usually over a wide area. Armed conflicts, epidemics, famine, natural disasters and other major emergencies may all involve or lead to a humanitarian crisis (http://en.wikipedia.org/wiki/Humanitarian_crisis).

Impact • A measure of the effect of an intervention on its target group (EHA/EMRO, MPHR - 2, 2006).

Lifelines • Sometimes called essential services, sometimes ‘lifelines’. The water supply system is one of these (http://www.who.int/hac/about/health_in_emergencies_19.pdf).

Mass casualty incidents • An incident which generates more patients at one time than locally available resources can manage using routine procedures. It requires exceptional emergency arrangements and additional or extraordinary assistance (MCM Systems – WHO/HAC 2007).

Mitigation • Structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards (UN ISDR).

Prevention • Activities to provide outright avoidance of the adverse impact of hazards and means to minimize related environmental, technological and biological disasters. Depending on social and technical feasibility and cost/benefit considerations, investing in preventive measures is justified in areas frequently affected by disasters. In the context of public awareness and education, related to disaster risk reduction changing attitudes and behaviour contribute to promoting a “culture of prevention” (UN ISDR).

Readiness • A qualitative statement of the existing capacity and capability of an institution, service or agency to manage the consequences of a particular hazard at a particular time (EHA/EMRO, MPHR - 2, 2006).

Recovery • Decisions and actions taken after a disaster with a view to restoring or improving the pre-disaster living conditions of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk. Recovery (rehabilitation and reconstruction) affords an opportunity to develop and apply disaster risk reduction measures (UN ISDR).

Resilience • The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures (UN ISDR).

Risks • The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions (UN ISDR).

Risk Communication • The understanding of risks, the transfer of risk information to the public and the transfer of information from the public to the decision makers. Risk communication involves a dialogue among interested parties including risk experts, policy makers and affected citizens (The dictionary of Homeland Security and Defense, 2006).

Risk management • The systematic process of using administrative decisions, organization, operational skills and capacities to implement policies, strategies and coping capacities of the society and communities to lessen the impacts of natural hazards and related environmental and technological disasters. This comprises all forms of activities, including structural and non-structural measures to avoid (prevention) or to limit (mitigation and preparedness) adverse effects of hazards (UN ISDR).

Risk reduction • 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 (*Risk reduction and emergency preparedness strategy*, WHO/HAC 2007).

Standard Operating Procedures • A set of instructions covering those features of operations which lend themselves to a definite or standardized procedure without loss of effectiveness (MCM Systems – WHO/HAC 2007).

Surge capability • The capability to provide triage and then to provide medical care. This includes providing definitive care to individuals at the appropriate clinical level of care, within sufficient time to achieve recovery and minimize medical complications. The capability applies to an event resulting in a number or type of patients that overwhelm the day-today acute-care medical capacity. Medical Surge is defined as the increased need of personnel (clinical and non-clinical), support functions (laboratories and radiological), physical space (beds, alternate care facilities) and logistical support (clinical and non-clinical supplies) in a coordinated fashion (http://www.azdhs.gov/phs/edc/edrp/es/pdf/medsurge_capabilities.pdf).

Surge capacity • The “health care system” ability to rapidly expand beyond normal services to meet the increased demand for qualified personnel, medical care, and public health in the event of large scale public health emergencies or disasters (Agency for Healthcare, Research and Quality, USA 2005).

Vulnerability • The conditions determined by physical, social, economic, and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards. For positive factors, which increase the ability of people to cope with hazards, see definition of capacity (UN ISDR).

Vulnerability Reduction • The coordinated efforts needed to halt emergencies and disasters by talking the source - the deteriorating environment, the hazards that bring harm to the communities, and the vulnerability of the communities to those hazards. These coordinated activities are: policy development, vulnerability assessment, emergency prevention and mitigation, and emergency preparedness (*Community emergency preparedness: a manual for managers and policy-makers*. Geneva, World Health Organization, 1999).

Vulnerable groups (groups with specific vulnerabilities) • Those who because of constraints of an economic, social, ethnic, physical, mental or geographic nature, are less able to cope with the impact of hazards than other members of their community or society (EHA/EMRO, MPHRI - 2, 2006).

Annex 3

List of Abbreviations

ALS	Advanced Life Support
ARIs	Acute respiratory infections
BCRNE	Biological, Chemical, Radiological, Nuclear Emergencies
BLS	Basic Life Support
CD	Communicable diseases
CDC	Centers for Disease Control
CDPHS	Communicable Diseases of Public Health Significance
CPR	Cardio-Pulmonary Resuscitation
DEP	Department of Environmental Protection
ECC	Emergency Command and Control
ED	Emergency Department
EMA	Emergency Management Australia
EMS	Emergency Medical Services
EMS-S	Emergency Management Services/Systems
ENN	Emergency Nutrition Network
EOC	Emergency Obstetric Care
EP	Emergency preparedness
EPI	Expanded Programme on Immunization
ERP	Emergency Response Plan
EWS	Early warning system
HINAP	Health Intelligence Network for Advanced Contingency Planning
HIV	Human immunodeficiency virus
HS	Health Systems
IASC	Inter-Agency Standing Committee
IATSIIC	International Association for the Surgery of Trauma and Surgical Intensive Care
IBFAN	International Baby Food Action Network
ICN	International Council of Nurses
ICP	Incident Command Post
IDP	Internally displaced persons
IFRC	International Federation of the Red Cross and Red Crescent Societies
ISS	International Society of Surgery
JAS	Job actions sheets
MCH	Maternal and Child Health
MCM	Mass casualty management
MISP/RH	Minimum Initial Service Package/Reproductive Health
MoH	Ministry of Health
MPHR	Management of Public Health Risks
NCD	Non-communicable diseases
NGOs	Non-governmental organizations

NNEPI	National Nursing Emergency Preparedness Initiative
PHC	Primary health care
PH	Public health
PTSD	Post traumatic stress disorders
RH	Reproductive Health
SAR	Search and Rescue
SOPs	Standard Operating Procedures
STDs	Sexually transmitted diseases
ToT	Training of Trainers
U5	Under fives
VBD	Vector-borne Diseases
VIP	Very important personalities
VPD	Vaccine preventable diseases
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UN ISDR	United Nations International Strategy for Disaster Reduction
WHA	World Health Assembly
WHO	World Health Organization
WHO/EMRO	World Health Organization/Eastern Mediterranean Regional Office
WHO/HAC	World Health Organization/Health Action in Crises
WHO/HQ	World Health Organization/Head Quarters
WHO/PAHO	World Health Organization/Pan American Health Organization
WHO/SEARO	World Health Organization/South East Asia Regional Office
WHO/VIP	World Health Organization/Injuries and Violence Prevention
WHO/WPRO	World Health Organization/Western Pacific Regional Office