

Disaster preparedness in the context of international “health security”



“Invest in health, build a safer future”

(WORLD HEALTH DAY 2007)



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Brno, Czech Republic

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24 October 2007

Preparing health systems to manage “disasters and health crises”

Towards “health security” in the WHO European Region

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Main public health threats for regional health security

- **Communicable** diseases
 - HIV/AIDS – TB
 - Influenza pandemic
 - SARS...
 - Accidental or deliberate release of biological, chemical and radio nuclear agents



- Natural & human made **disasters**
- Conflicts and complex emergencies
- Global changes – **climate change**





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WHO's Objective in “Crises”

Reducing avoidable mortality and morbidity in crises

Taking a “health systems approach”

*WHO = “health cluster lead agency”
- humanitarian health response*



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The concept of Crisis

Crisis conditions arise when

- ◆ Local *systems* on which people depend are overwhelmed.
- ◆ *Systems* are unable to respond to demand.
- ◆ People are unable to realise basic needs.

Causes of Crisis

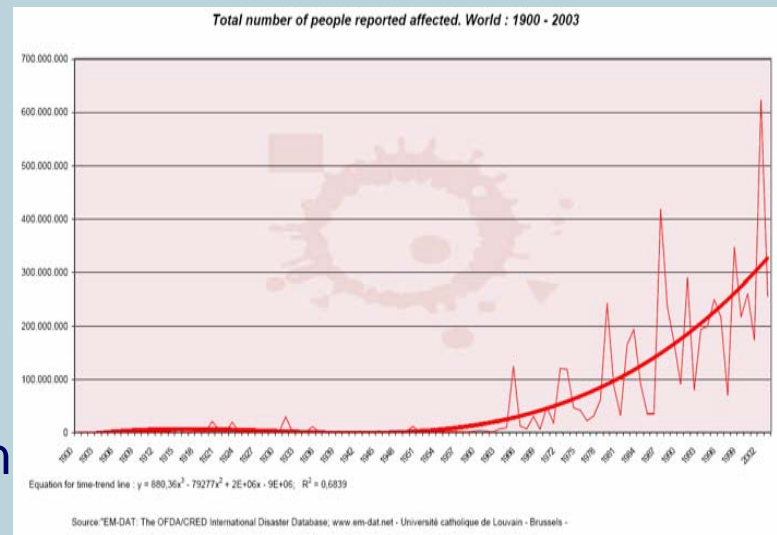
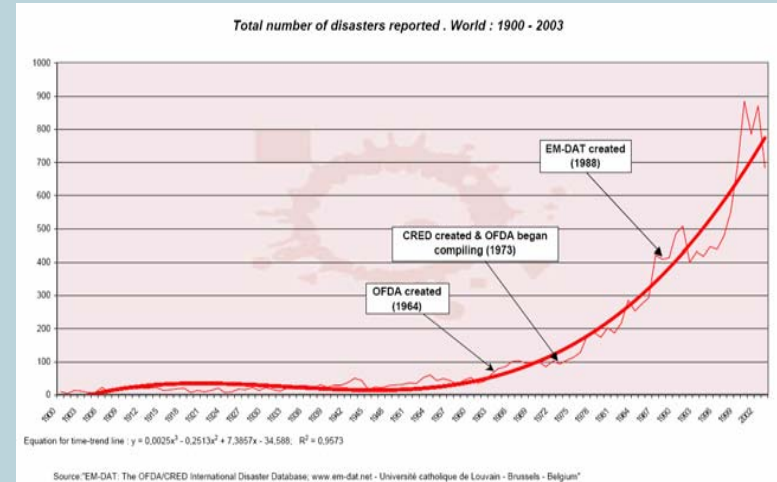
- Sudden, catastrophic events (chemical incidents, mass poisoning, biological releases, earthquakes, accidents...)
- Prolonged societal disruption (violence, flight and displacement)
- Slow onset disasters (desertification, global warming, high HIV prevalence)



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The global trends:

- Increasing numbers & scale of health crises and disasters
- Growing social & economic losses – long term consequences for vulnerable societies (MDGs)
- During the past 20 years, disasters have killed at least three million people; adversely affecting 800 million more
- **Health** is a major concern





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WHO'S four core functions in Emergencies and Crises

Function 1

Assessment, situation analysis and monitoring:
Ensuring critical health information

Function 2

Coordinating health action

Function 3

Identifying and Filling Gaps

Function 4

Strengthening local capacity

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FUNCTION 1: ENSURING CRITICAL INFORMATION

WHO has a responsibility to ensure that:

- health-related aspects of emergency situations are adequately assessed and monitored
- priority health needs and risks are identified
- information on the health situation is well managed, disseminated and used

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FUNCTION 2: COORDINATION OF HEALTH ACTION (1)

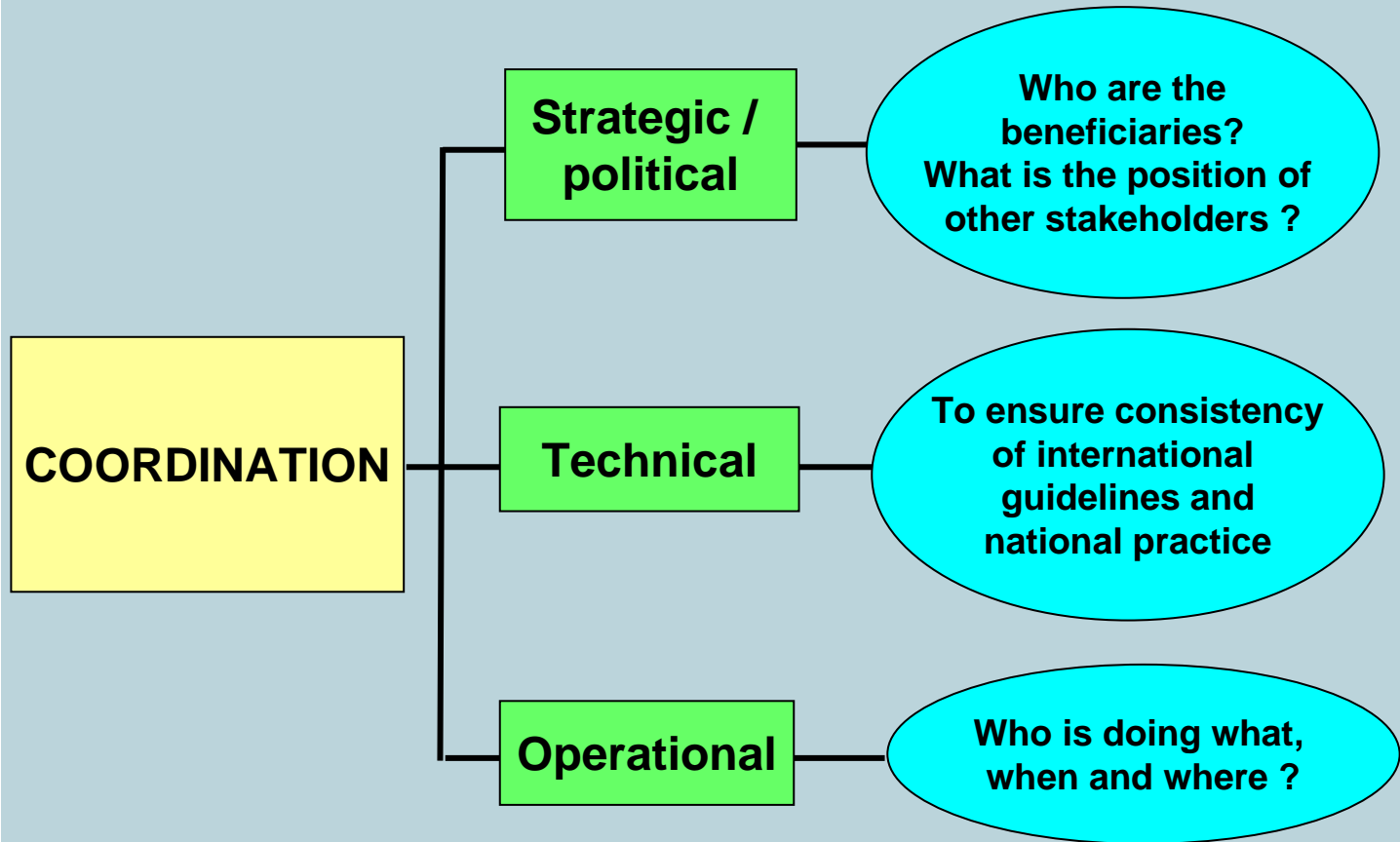
- **Coordinating health action encompasses:**
 - convening stakeholders and actors
 - sharing and exchanging information
 - agreeing on priority actions based on joint assessments
 - joint planning and focused action
 - assigning tasks and responsibilities
 - agreeing on mechanisms for follow-up, evaluation and readjustment



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COORDINATION OF HEALTH ACTION (2)

The three dimensions of coordination



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EFFECTIVE COORDINATION

- Health sector coordination (Ministry of Health)
- Multi sector coordination with strong health sector involvement
- Information sharing
- Establishing a common strategy
- Mutual understanding and trust
- Synergy

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FUNCTION 3:

IDENTIFYING AND FILLING CRITICAL GAPS

- Identification of gaps in the response that have a significant impact on survival rates and levels of ill-health
- Ensuring they are filled and that essential public health functions are restored
- As the last resort, filling the gaps means implementing assistance projects directly by WHO

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FUNCTION 4: STRENGTHENING LOCAL CAPACITIES

- Training and capacity building
- Rehabilitating essential structures
- Repairing disrupted health systems
- Empowering local health professionals

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Disasters & Health Crises affecting the EURO - Region (1990-2006)

Type of event	Number of events	Deaths	Affected population	Economic damage (thousands of US\$)
Flood	344	3 593	11 566 509	66 093 052
Extreme temperature	112	52 119	1 389 529	9 024 788
Drought	31	2	14 865 575	14 297 309
Wild fire	58	228	286 969	3 540 357
Earthquake	102	21 840	5 875 138	30 225 449
Accidents	609	16 856	137 638	11 697 048
Landslide and avalanche	57	2 084	90 196	156 589
Wind storm	170	1 397	8 063 234	33 114 822
Total	1 483	98 119	42 274 788	168 149 414

Source: "EM-DAT: The OFDA/CRED International Disaster Database, www.em-dat.net - Université catholique de Louvain - Brussels - Belgium" © 2006 CRED

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The heat wave example (2003)

- Western European countries with well developed health systems worst affected – 35.000 extra deaths in August 2003 (France with over 14.800 excess deaths)
- Gaps in operational preparedness planning
- Lack of standardized treatment guidelines for heat related health problems
- No mechanism to mobilize extra staff (holiday period)
- Insufficient crisis management
- Health systems failure
- Communication problems
- Political repercussions



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Improving public health response to extreme weather events (1)

- Heat health warning systems and heat health action plans developed (EURO HEAT)
- Integration into national health systems preparedness plans
- Provision of technical guidelines for heat related health problems



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Improving public health response to extreme weather events (2)

- Floods – serious health- and massive economic impact
- Promoting prevention and early warning systems
- Building codes and public awareness – **“Safe hospitals”** campaign





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Threat of avian influenza H5N1 in the WHO European Region

(Dec. 2005 - Mar. 2006)

Country	Cases	Deaths
Azerbaijan	8	5
Turkey	12	4
(October 8 th 2007)		
Global	330	202

Some lessons learnt:

- Coordination mechanism (multi-sectoral crisis committee)
 - Ministry of Health
 - Veterinary services
 - Ministry of Environment (Hunting regulations)
 - ...
- Health systems readiness
- Transparent information management
- Logistics (sample shipment)

Some consequences:

- Integrating pandemic preparedness into multi hazard health systems preparedness
- Joint country assessment missions with the ECDC to review pandemic preparedness plans
- Technical support to build surveillance and laboratory capacities



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Rebuilding and consolidating disrupted health systems (1)

WHO Programme in the North Caucasus - 2007

- Improvement of health care provision in the North Caucasus – EU funded joint project with UNICEF
- Strengthening primary health care in the North Caucasus
- Capacity building for integrated psychological and social/medical rehabilitation in a post conflict environment
- Strengthening health services in Chechnya at primary health care level



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Rebuilding and consolidating disrupted health systems (2)

United Nations Administered Province of Kosovo (Serbia):

- Serious environmental health crisis
- “Lead Crisis Action Plan”
- Voluntary relocation of vulnerable groups from severely affected IDP camps
- Preliminary analysis: Multi faceted intervention package and voluntary relocation = significant impact to decrease BLL



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One of the same kind...

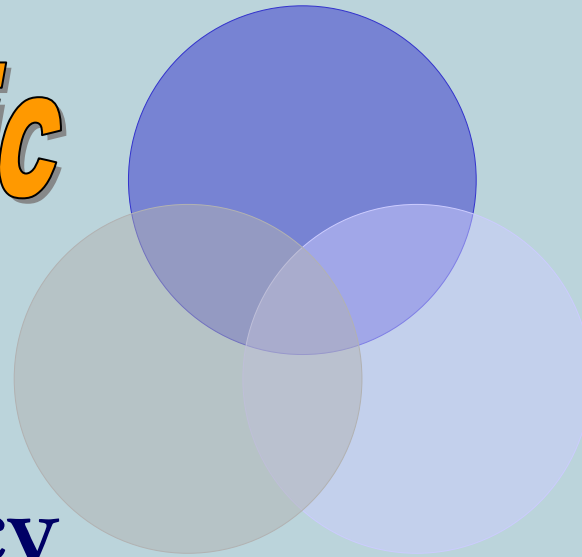
each of them a challenge for health systems -
threatening health security

Disaster

Pandemic

Emergency

Health –
Crisis



multi-hazard approach

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Disaster Preparedness

It includes all measures taken in advance of the disaster situation to improve the scope and effectiveness of the response, involving activities such as:

- ▶ Information systems, databases (maps, rosters)
- ▶ Plans, norms, procedures, policies and functions
- ▶ Public awareness
- ▶ Development of human resources (capacity building)
- ▶ Development of material resources
- ▶ Coordination and networking



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Disaster Mitigation

- Vulnerability analysis and mapping
- Improved design of new health facilities
“**Health facilities safe from disasters**”
- Retrofitting existing facilities
- Norms, guidelines and training



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Disaster Response

- Sector coordination
- Health intelligence
- Rapid health assessment
- Standards and guidance
- Monitoring health status
- Resource mobilization
- Humanitarian relief through medical supplies and equipment



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Disaster Recovery

- Damage assessments
- Ensure links to development process
- Mobilize resources
- Lessons learned and evaluation
- Integration of mitigation measures



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Sharing evidence and standards

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Some lessons learnt from recent health crises

- Unexpected events, even in well developed health systems create chaos.
- Well **prepared public health systems** and established **preventive measures** effectively reduce the negative impact on human health and security.
- **Cross sector coordination** and predefined streamlined **decision making processes** in crises and emergencies are crucial to minimize health and security impacts.
- Rapid and accurate **information** on potential health effects and effective interventions are essential.
- **Public awareness, communication** and guidance for decision makers are effective tools to promote essential preventive measures.

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Building institutional readiness



- Revised internal WHO regional emergency management procedures
- Integration of IHR alerts into regional emergency steering mechanism
- Regional surge capacity to mobilize technical experts established
- Public health pre-deployment training for emergency specialists held at EMERCOM training site in Russia, Noginsk
- Standard operating procedures for health emergencies revised

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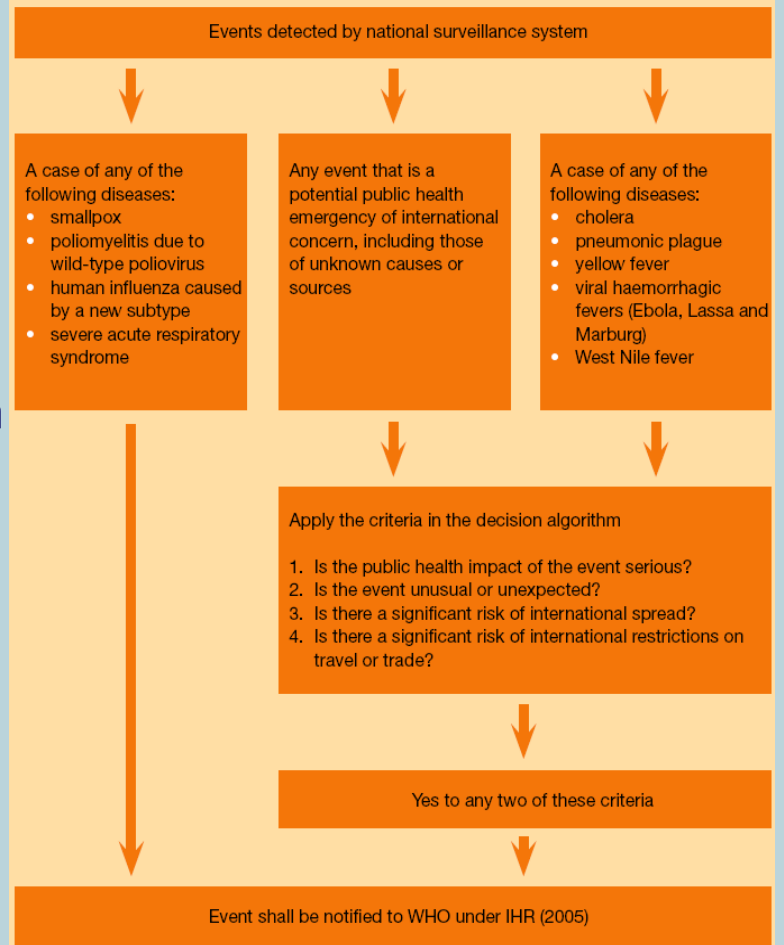
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International Health Regulations (2005)

- A renewed framework for managing health security threats:
- PHEIC - “public health emergency of international concern” - an extraordinary event considered:
 - (i) to constitute a public health risk to other countries through the international spread of disease and
 - (ii) to potentially require a coordinated international response.

Fig. 4. Decision instrument for the assessment and notification of events that may constitute a public health emergency of international concern



Source: simplified from IHR (2005) (89).



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The outlook: a continued focus on health systems preparedness

- Social inequalities in the Region trigger increasing *vulnerability*
- High risk for unexpected events potentially affecting health security
- Health systems in many countries in the region are still insufficiently prepared to cope with health aspects of a crisis
- Scaling up health systems preparedness is essential



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**Building Public Health Capacity for Risk
Reduction and Crisis Management
in the European Region**



Disaster Preparedness & Response
Regional Office for Europe
World Health Organization

Also known as Health Action in Crises

Thank You!

www.euro.who.int/emergencies