



Public Health Emergency Preparedness Core competencies for EU member states

Massimo Ciotti

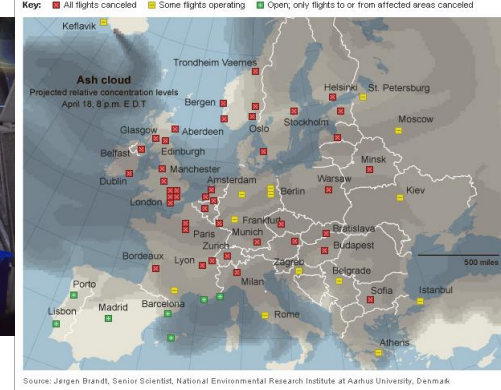
Public Health should

1. Be prepared for a **naturally occurring outbreak or deliberate release**

- ❖ Quickly recognize the disease (e.g. VHF, pandemic flu)
- ❖ Control spread (isolation, quarantine, vaccination)
- ❖ Assure that people get needed care
- ❖ Coordinate with national and international agencies
- ❖ Prevent mass panic

2. Be prepared for **other public health emergencies**, e.g. such as of environmental or technological origin (floods, earthquakes, chemical spills, RN incidents, extreme weather, ...)

- ❖ Coordination across sectors and boundaries
- ❖ Investment in workforce and social capital
- ❖ Resilience to adapt to unexpected



Preparedness in the context of ECDC

Public Health Emergency Preparedness Cycle



Anticipate

- Mapping, assessing and prioritising risks and vulnerabilities
- Supporting strategic preparedness planning
- Strengthening cross-border and cross-sectoral collaboration
- Simulation exercises
- Capacity building

Respond

- Early warning and epidemic intelligence
- Rapid risk assessments
- Ad hoc* technical guidance
- Field support

Recover

- After-event reviews (critical incident reviews)

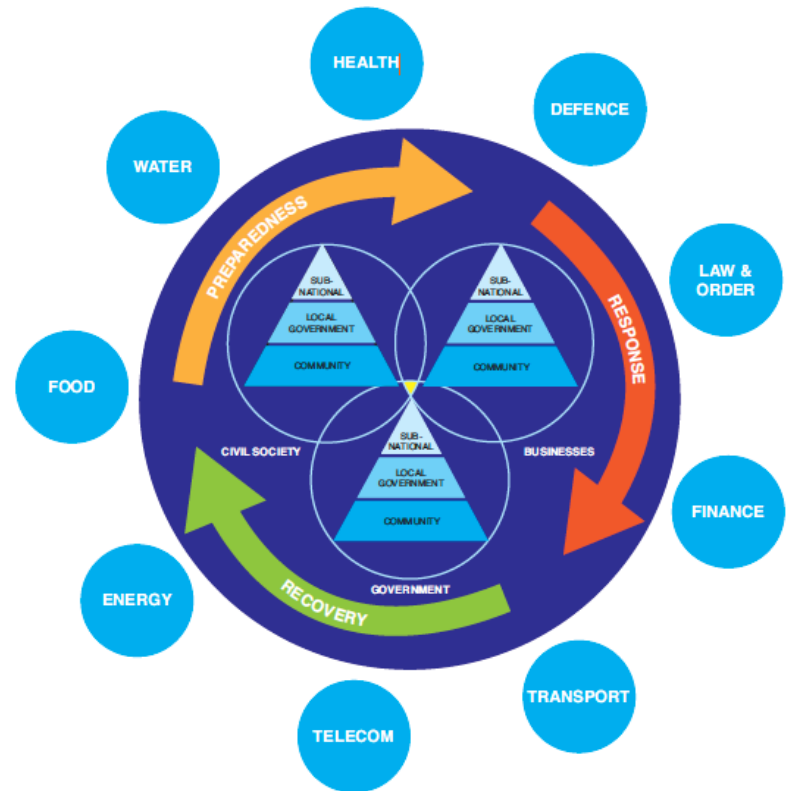
Public health emergency preparedness system

PHEP “system” is fragmented

- Global, national and subnational units
- Structure and function vary
- Non public health partners
- Health care, policymakers, EMS, civil protection agencies, civil society, media, ...

Effective response is complex and multifactorial

- Not always clear what is effective and needs to be done
- Who is responsible for what?



WHO "Whole of Society" approach

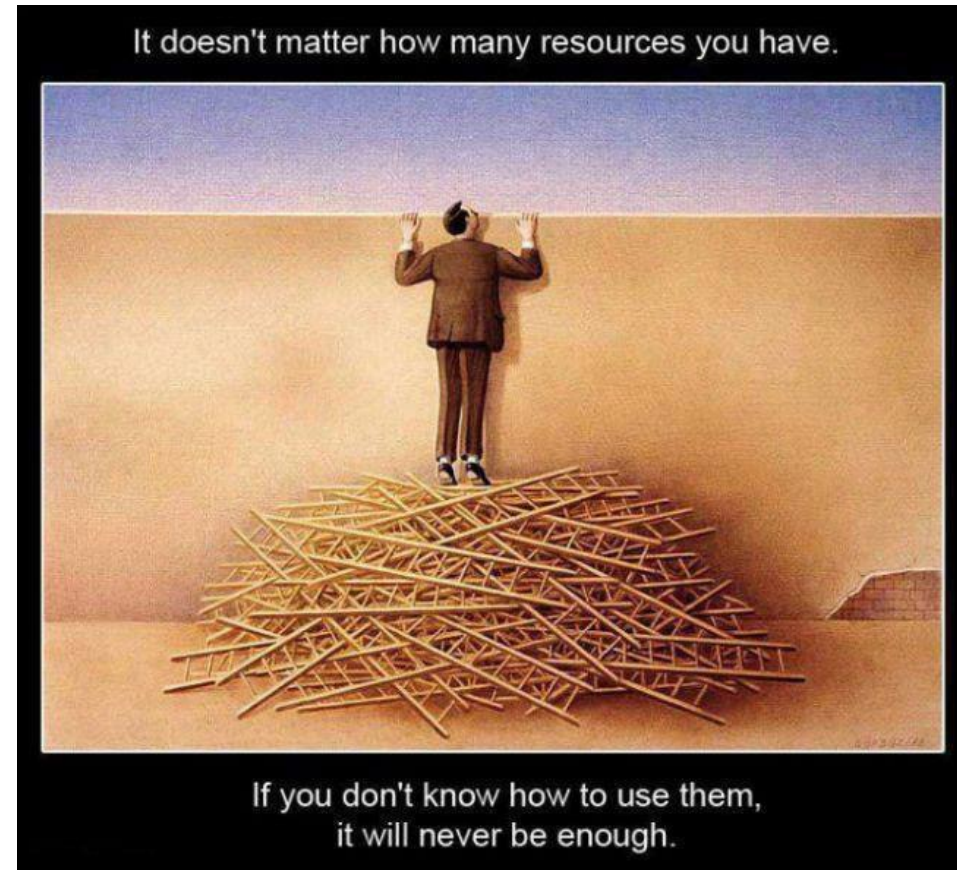
Capacities and capabilities

Preparedness capacities:

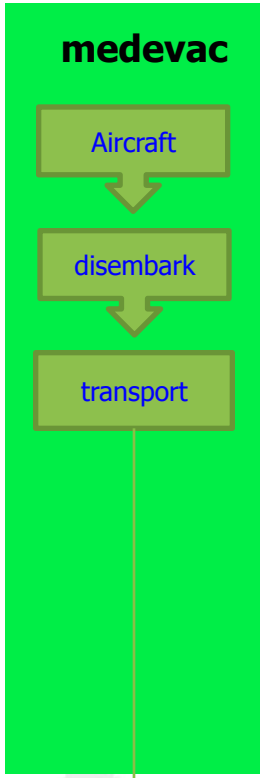
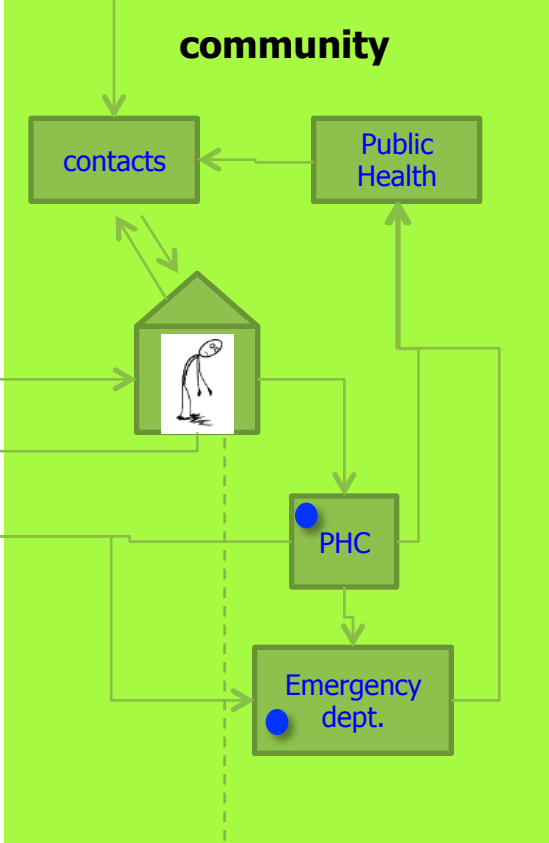
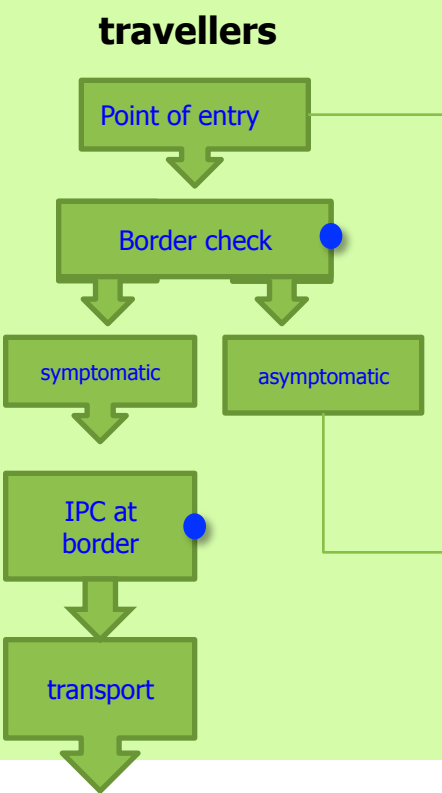
- resources to draw upon
 - infrastructure
 - policies and plans
 - knowledgeable and trained personnel
- focus of Joint External Evaluation (JEE) tool

Response capabilities:

- actions public health systems can take to detect, characterize, & respond to emergencies
- aka. "functional capacities"
- analyze at high enough level to allow generalization



VHF pathways and potential responders: conceptual scheme



Designated treatment hospital

Critical abilities

- Isolation
- PPE
- Samples
- Waste
- Post-mortem
-

- Cross-cutting**
- Surveillance
 - Case finding
 - IPC
 - Laboratory
 - Info, comms
 - HR, training
 - coordination

- Five modules**
- A – Primary responders
 - B – Point of entry
 - C – Medevac
 - D – In country transport
 - E – Designated hospital

- For each organisation**
- Suspect case recognition
 - Patient management & staff protection
 - Plans & preparation

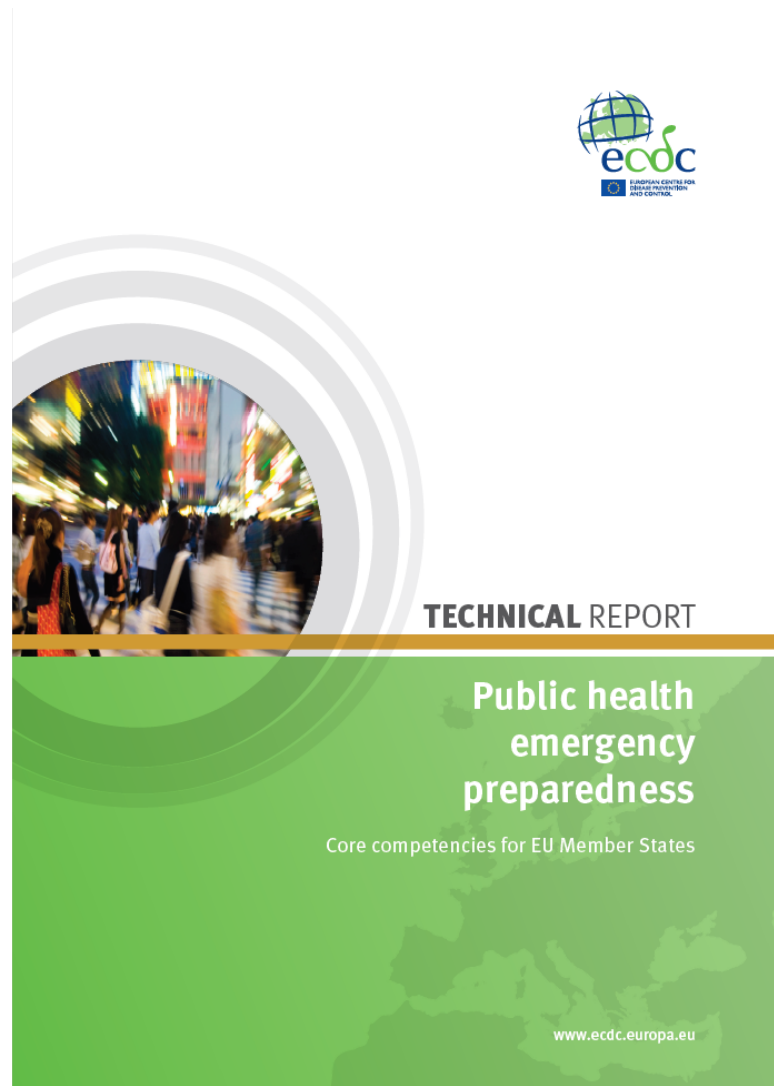
● Possible point of recognition as suspect case

Logic model for public health emergency preparedness in EU Member States

Capacities	Response capabilities	Objectives
Legal measures <ul style="list-style-type: none"> • Accountability • Organisational structures • Policy development • Delegation of authority • Administrative preparedness 	Detection and assessment <ul style="list-style-type: none"> • Incident recognition • Risk characterisation • Epidemiological investigation • Surveillance and epidemiological monitoring • Laboratory analysis • Environmental monitoring 	Earliest possible identification of event
Economic measures <ul style="list-style-type: none"> • Financing • Workforce development • Facilities • Infrastructure 	Policy development, adaptation, and implementation <ul style="list-style-type: none"> • For infection control and treatment guidance • For population-based disease control • Communicating between national and subnational authorities and enforcing laws and regulations 	Early and effective response <ul style="list-style-type: none"> • Minimising morbidity and mortality • Limiting spread of disease • Minimising social disruption • Minimising infrastructure and environmental damage
Operational measures <ul style="list-style-type: none"> • Capacity assessment and planning • Drills and exercises • After-action reports and post-event evaluation 	Health services <ul style="list-style-type: none"> • Preventive services • Medical surge • Management of medical countermeasures, supplies and equipment • Medical services for healthcare workers and emergency responders 	
Social capital: partnerships between public health and <ul style="list-style-type: none"> • Healthcare providers • Emergency responders • Law enforcement • Community organisations 	Coordination and communication (within the public health emergency preparedness system) <ul style="list-style-type: none"> • Crisis management • Communication with healthcare providers • Communication with emergency management, public safety, and other sectors • Communication with other public health agencies at the global, European, national, and subnational levels 	Earliest possible recovery and return to normal
	Emergency risk communication (with the public) <ul style="list-style-type: none"> • Address communication inequalities • Use dynamic listening and manage rumours • Communicate risk in an accurate, transparent and timely manner • Foster and maintain trust 	



PHEP Core competencies



Some definitions

Competencies

Combinations of knowledge and skills required to perform a task effectively.

'Competence' refers to the knowledge and skills that an individual person possesses.

'Competency' refers to an individual's behaviour when they put their competence into practice.

Knowledge

Outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. Knowledge can be theoretical or factual.

Skills

Ability to apply knowledge and use know-how to complete tasks and solve problems.

Capacities

Represent the resources – infrastructure, policies and procedures, knowledgeable and trained personnel – that a public health system has to draw upon.

Capabilities

Describe what Member States are expected to achieve during an emergency, and can be described in a consistent way for all countries.



Competencies are combinations of knowledge and skills that are required to perform a task effectively.

1. all learning outcomes—the required competencies—are precisely defined, so as to be **measurable**.
2. the aim of competency-based education is **preparation for specific jobs** or professional roles, from which the competencies are derived.
3. trainings are typically implemented in a **modular format** based on level of difficulty and/or specificity.

Cross-sectoral Biorisk Awareness
and Mitigation Training,

Olhao 17-19 April



Public Health Emergency
Preparedness (PHEP) – Pilot
Curriculum Course,
Bologna 22-25 May



Management of medical countermeasures, supplies and equipment. The ability to procure, distribute, and manage countermeasures, supplies and equipment – including personal protective equipment (PPE) – during an incident. Some of the competencies in this area require activating pre-existing policies, procedures, agreements and other capacities, so the knowledge and skill statements are contingent on the existence of these capabilities in the MS.

Workforce groups: NFP for preparedness, public health emergency response managers, health officials at the ministry level, regulatory agency leadership, officials responsible for procurement, and management members of medical products and technology

Competencies

1. Work with health personnel to identify the best medical countermeasures based on risk and threat; relay the results of these conversations.
2. Ensure flexible policies and procurement strategies among Member States including how to allocate resources in the event of a shortage.
3. Ensure there are adequate levels of human resources (e.g. experts) and laboratory capacity available in the Member States.

Knowledge and skills

- a. Understand the Member States' needs for medical countermeasures and procurement procedures; ensure optimal agreements to guarantee the effective deployment of countermeasures. [K]
- b. Activate pre-established Member State governing bodies that can make surge-related decisions in the event of a health emergency. [S]
- c. Solicit input from healthcare personnel within medical facilities when developing plans. [S]

Communication with other public health institutions at the global, European, national and subnational levels. Communication between public health institutions at all levels to ensure the coordination of prevention and treatment efforts.

Workforce groups: NFP for preparedness; health officials at the ministry level, national public health agency leaders

Competencies

1. Identify key partners and develop a common understanding of roles, resources, planning assumptions, risks/vulnerabilities, and information that should be shared during response operations.
2. Develop strategies to communicate with professionals who have different skills and knowledge levels; develop strategies to communicate with partner organisations to ensure a coordinated response.
3. Advocate regular multi-country exercises to improve the ability to communicate with partners.
4. Assess the quality of the microbiology networks.
5. Assess the adequacy of mutual aid mechanisms and multi-disciplinary taskforces.

Knowledge and skills

- a. Be familiar with plans and key response partners and their most important information needs. [K]
- b. Know response plans well enough to participate in drills and exercises. [K]
- c. Be aware of differences in knowledge and skill levels in partner organisations. [K]
- d. Communicate with professionals with different knowledge and skill levels. [S]
- e. Know how public health surveillance and microbiology networks function. [K]
- f. Use health surveillance and microbiology networks to share information. [S]
- g. Know key response partners and their information needs. [K]
- h. Know about mutual aid mechanisms and how to activate them. [K]
- i. Work with relevant partners to ensure that key coordination mechanisms are understood. [S]

Note: K – knowledge statement; S – skills statement

Core competencies

Coordination and communication (within the public health emergency preparedness system). This section covers important aspects of communication that relate to the coordination and management of the public health emergency preparedness system during a cross-border threat. The competencies and capabilities described are not ends in themselves, but rather describe how the Member States can achieve these ends and what must be accomplished during a crisis. Effective leadership and governance structures are clearly important for crisis management, but because these factors vary across Member States, the focus here is on key aspects of coordination and communication.

Crisis management. Employing a systematic approach to organise and manage resources and responsibilities for addressing all aspects of emergencies, including continuity of operations.

Workforce groups: NFP for preparedness, public health emergency response managers, public health emergency preparedness planners

Competencies

1. Continuously create and update an incident management plan that adapts existing policies to the situation at hand.
2. Continuously inform public health emergency response managers about the threat so that the incident management plan can be updated.
3. During the response operation, anticipate resource needs and communicate them to relevant decision makers.
4. Before the response operation, practice and test the ability to make decisions under uncertainty.
5. Participate in the implementation of plans which ensure the continuity of operations.
6. Communicate with political decision makers to mobilise needed resources, communicate current knowledge and uncertainties, and solicit guidance.
7. Before the response operation, identify key assumptions behind plans, identify untenable assumptions, and advocate changes as needed.
8. Develop protocols and test/exercise processes for health emergency operations and their activation.

Knowledge and skills

- a. Be familiar with the principles of incident management. [K]
- b. Know which key partners are involved in developing and implementing incident management plans. [K]
- c. Understand the basic principles of infection control and treatment and their implications for PHEP. [K]
- d. Collect information from epidemiologists and disease surveillance experts and other partners in order to adapt the incident management plan as needed. [S]
- e. Understand the basic principles of communicating science-based information to policymakers. [K]
- f. Use communication mechanisms for efficiently communicating with a full range of response partners. [S]
- g. Know key response partners and the primary roles and responsibilities in a response. [K]
- h. Communicate continuously with key response partners to identify current and potential resource needs. [S]
- i. Use administrative mechanisms for transferring or sharing resources among partners. [S]
- j. Be familiar with the basic principles of simulation exercises and drills. [K]
- k. Be able to select exercise/drill formats appropriate for testing decision-making competency under uncertainty. [S]
- l. Be familiar with the basic principles of planning for the continuity of operations. [K]
- m. Be familiar with non-emergency operations, which may become necessary during a medium to long-term response operation. [K]
- n. Work with key partners to identify strategies for maintaining important routine operations during medium-to-long term responses. [S]
- o. Know who the key political decision makers are and the kinds of decisions they might need to make during a response. [K]
- p. Be familiar with response plans. [K]
- q. Understand all aspects of emergency plans, e.g. resources, personnel, material, and other requirements. [K]
- r. Synthesise and communicate information to decision makers who have the authority to redirect resources as needed. [S]
- s. Communicate the importance of joint training and joint simulation exercises to key decision makers. [S]

Note: K – knowledge statement; S – skills statement

ECDC contribution to health security

Prevention

- Scientific research and guidance
- Health determinants
- Prevention guidance (AMR, VPD)
- Risk communication

Preparedness

- National risk assessments > preparedness priorities
- Preparedness plans
- Inter-operability of plans
- Intersectoral collaboration
- Training & Exercising
- Crisis management procedures
- COOP plans
- Evaluation

Early warning

- Epidemic Intelligence
- Risk Monitoring
- Rapid Alert
- Risk Assessment
- Public Communication

Surveillance

- EU Surveillance
- Support to Risk Management
- Outbreak Communication

Outbreak Response Assistance

- Outbreak investigation
- Mobilisation of networks
- Deployment of OAT

Recovery

- Guidance on rehabilitation/ decontamination
- Crisis Mgt and Response Evaluation
- Lessons identified > case studies
- Update detection/ response protocols

Prevention

Preparedness

Response

Recovery

Planning and Preparedness

“Everybody has a plan until they get punched in the face.”



