State of play of preparedness on serious cross-border threats to health in the EU

FINAL REPORT

Workshop, 25th to 27th April 2018

September – 2018

Third EU Health Programme

EUROPEAN COMMISSION

Directorate - General for Health and Food Safety
Directorate C — Public health, country knowledge and crisis management
Unit C.3 Crisis management and preparedness in health

Email: SANTE-CONSULT-C3@ec.europa.eu

Consumers, Health, Agriculture and Food Executive Agency
Health and Food Safety unit
Email: Jurgita.kaminskaite@ec.europa.eu

European Commission

L-2920 ***Luxembourg***

EUROPEAN COMMISSION

State of play of preparedness on serious cross-border threats to health in the EU

FINAL REPORT

Workshop, 25th to 27th April 2018

Consumers, Health, Agriculture and Food Executive Agency

Third EU Health Programme

2018 EN

Europe Direct is a service to help you find answers to your questions about the European Union.

Freephone number (*)**:**

00 800 6 7 8 9 10 11

(*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

The European Commission support for the production of this publication does not constitute endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

More information on the European Union is available on the internet (http://europa.eu).

Luxembourg: Publications Office of the European Union, 2018

ISBN: 978-92-9200-951-9

doi: 10.2818/367585

© European Union, 2018

Reproduction is authorised provided the source is acknowledged.

Disclaimer

This report was produced under the Health Programme (2014-2020) in the frame of a specific contract with the Consumer, Health, Agriculture and Food Executive Agency (CHAFEA) acting on the mandate from the European Commission. The content of this report represents the view of the contractor and is its sole responsibility; it can in no way be taken to reflect the views of the European Commission and/or CHAFEA or any other body of the European Union (EU). The European Commission and/or CHAFEA do not guarantee the accuracy of the data included in this report, nor do they accept responsibility for any use made by third parties thereof. McKinsey & Company was awarded this specific contract for a workshop on the state of play of preparedness under Framework Contract CHAFEA/2015/Health/05 Lot 2.

Contents

EXECUTIVE SUMMARY

Workshop - State of play of preparedness for serious cross-border threats to health in the EU

DATE: 25th – 27th April 2018

Overview

Context

From the 25th to the 27th of April, the European Commission's Directorate General for Health and Food Safety (DG SANTE) organised a workshop on the state of play of preparedness for serious cross-border threats to health in the EU. Experts from public health and other relevant sectors in charge of their country's preparedness and response planning from EU Member States, European Economic Area (EEA) countries and the Republic of Serbia participated. Other European Commission services, including the Directorate General for European Civil Protection and Humanitarian Aid Operations (DG ECHO) and the Directorate General for Migration and Home Affairs (DG HOME), as well as the European Centre for Disease Prevention and Control (ECDC), and international organisations, such as the World Health Organisation (WHO) Regional Office for Europe, also took part.

The aim of the workshop was to support the strengthening of the preparedness and response planning under Decision 1082/2013/EU on serious cross-border threats to health, building cross-sectoral capacity and sharing best practice and experience across the participant countries.

Objectives

The main objective of the workshop was to determine the state of play of preparedness in the EU, considering:

- The Council conclusions on the lessons learned from the Ebola outbreak[1].
- The results of the report on the state of preparedness and response planning in the EU Member States (under Article 4 of Decision 1082/2013/EU)[2].
- The outcomes of the various simulation exercises, workshops, studies and surveys commissioned by DG SANTE over recent years.

In addition, the workshop was designed to strengthen and promote preparedness by:

- Taking stock of preparedness capacity built by the Commission and EU Member States, and identifying gaps.
- Fostering discussion on how to bridge gaps, especially in the areas of bio-toxins and chemical and environmental threats to health.
- Sharing best practice on how health systems have successfully integrated intersectoral cooperation in their crisis management.

[1]Council conclusions on 'Lessons learned for Public Health from the Ebola outbreak in West Africa — Health Security in the European Union'. Council of the European Union (2015). Available from: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015XG1217(02)&from=EN

[2] 'Report on the implementation of Decision No 1082/2013/EU'. European Commission (2015). Available from https://ec.europa.eu/health//sites/health/files/preparedness_response/docs/report_decision_serious_crossborder_threats_22102013_en.pdf http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015DC0617&from=EN

Day 1 – 25th April 2018

Dr. Wolfgang Philipp, Head of Unit on Crisis Management and Preparedness in Health, DG SANTE, gave a welcome address to participants, introduced Decision 1082/2013/EU and its key components, and described the aims of the workshop. He welcomed participants from 22 different countries, EU agencies and international partners, as well as the speakers.

Dr. Agnes-Marta Molnar, Deputy Head of Unit on Crisis Management and Preparedness in Health, DG SANTE, introduced the EU health security framework, including structures and mechanisms for preparedness and response to different types of threats to health covered by Decision 1082/2013/EU. She referred to cross-sectoral areas related to health security and emphasized new developments, including on the Early Warning and Response System (EWRS).

The two initial speeches were followed by a Gallery Walk, where participants visited four stations displaying key aspects of the four preparedness topics related to Decision 1082/2013/EU, which were covered during the three-day workshop. They were:

- International Health Regulations (IHR) core capacities
- Business Continuity Plans (BCPs)
- Intersectorality
- Collaboration within the EU and beyond

Topic I. Preparedness planning

Prof. Jonathan Van-Tam, Deputy Chief Medical Officer for England, UK Department of Health, began the first content session, which was focused on preparedness planning. He addressed the evolution of the UK preparedness planning and the general understanding of risks and preparedness for pandemic influenza today.

Iceland gave a speed talk on preparedness and their national efforts to address potential earthquakes and volcanic eruptions.

An interactive polling exercise afterwards revealed that 48% of participant countries conduct preparedness planning in some areas and 52% in all areas. The group was equally split in frequency, with 52% updating the plan more frequently than every 5 years and 48% less frequently than every 5 years. Participant countries usually update individual aspects of the plan regularly. However, a formal publication occurs less frequently.

Topic II. Implementation of IHR core capacities

The sessions moved on to discuss IHR implementation with Dr. Mike Ryan, Assistant Director-General in the WHO Health Emergencies Programme, providing an introductory talk on the new programme. He was followed by Dr. Dina Pfeifer, Medical Officer within the WHO Health Emergencies Programme, who provided an update on the current status of the implementation of IHR core capacities. A Q&A session and an interactive session covering all eight IHR core capacities then followed, allowing participants to discuss concrete challenges they faced and potential solutions[3].

Day 2 – 26th April 2018

Topic III. Business continuity planning

Dr. Francesca Viliani, Head of Public Health from International SOS, gave the introduction to the day and the topic. She emphasized the difference between BCPs and emergency response plans; BCPs cover what organisations need to do to continue staying operational and therefore have a longer time horizon. She provided the following guiding principles: keep it simple; focus on what can go wrong; maximize resources; have in place strong procedures

[3] The IHR core capacities include: legislation, coordination, surveillance, laboratory capacity, risk communication, overall preparedness, human resources and response planning

making it easy to operationalize; and keep testing the robustness of the plans. The importance of testing was emphasized, in order to ensure the original assumptions were correct.

Iceland gave an additional speed talk, focusing on business continuity planning, emphasizing the importance of a multi-sectoral approach supported by temporary, holistic service centres, during events such as earthquakes or volcanic eruptions.

During breakouts, participants had time to discuss their challenges and share recommendations related to business continuity planning, including the importance of regular exercises to test the robustness of BCPs. In a speed talk at the end of the session, Norway shared the criticality of BCPs in the context of the 2011 terrorist attack on a government building in the country, at a time when no robust BCPs were in place.

Keynote speech and panel debate

Mr. Wiktor Wojtas, Policy Analyst in the Terrorism and Radicalisation Unit of the European Commission's Directorate General Migration and Home Affairs (DG HOME), that is responsible for the implementation of the EU CBRN (chemical, biological, radio-nuclear) Action Plan, gave a keynote speech addressing new threats of biological and chemical terrorism. He emphasized that while this category remains a relatively low-level threat, it is evolving and the number of events has increased significantly in recent years.

The speech was followed by a panel debate facilitated by Professor Ilona Kickbusch, Director of the Public Health Programme and Adjunct Professor at the Graduate Institute of International and Development Studies, Geneva. The panel of five experts, who focused on new types of threats to health,included: Prof. David Russell, Dr. Francesca Viliani, Mr. Wiktor Wojtas and, Dr. Clément Lazarus and Mr. Gerasimos Gerolymatos (representatives from France and Greece).

Topic IV. Intersectorality

Prof. David Russell, Head of Centre for Radiation, Chemical and Environmental Hazards (CRCE)-Wales/WHO-Collaborating Centre for Chemical Incidents, introduced the fourth topic. He emphasised that intersectoral coordination is becoming increasingly important. There are rising numbers of chemical incidents and there is a global increase in production of chemicals, suggesting incidents related to chemicals are more likely to occur going forward. Many stakeholders are involved in efforts to contain chemical incidents, including communities themselves, media, local healthcare providers, food agencies, labs, utilities and others. This underscores that intersectorality is key to successful management of such events.

Bulgaria provided a speed talk on the topic, addressing the difficulty of implementing a plan when faced with human resources shortages. Portugal, in their speed talk, used the 2018 Eurovision contest in Lisbon as a good example of how the country has been embracing intersectorality.

Topic V. Collaboration within the EU and beyond

The final topic was opened by Dr. Evelyn Depoortere, Policy Officer at DG ECHO. She addressed the cultural differences between the health and civil protection sectors. Furthermore, she pointed out the lack of legal mandate and of resources for action at EU level and noted that maintenance of capacities requires significant alignment and support from decision-makers within participant countries.

Dr. Christos Hadjichristodoulou, of EU SHIPSAN ACT Joint Action, gave an overview of the Europe-wide response effort to deal with health threats in maritime transport. He emphasised that we cannot have a different response at different entry points throughout the EU, so collaboration and common standards are essential.

Participants had a final breakout to discuss collaboration in depth and returned to the plenary to share their perspectives on how to make collaboration work.

Day 3 – 27th April 2018

Dr. Massimo Ciotti, Head of the Preparedness Section and Deputy Head of the Public Health Capacity and Communication Unit at ECDC, provided the first topic of the day, focusing on preparedness and how it is addressed by ECDC. He was followed by Prof. Marc Struelens, Chief Microbiologist and Head of the Microbiology Coordination Section at ECDC, who presented on the topic of strengthening microbiological laboratory capacities. According to Prof. Struelens, a positive development is that the capacity of laboratories in the EU is continuously improving. An alarming development is the growth of new threats to health, such as anti-microbial resistance (AMR), which go beyond traditional communicable diseases and require reinforced efforts.

Participants then discussed the most significant gaps they could identify in preparedness, based on the workshop discussions, particularly highlighting the need for more training, human resources, intersectorality and political support. They then each shared their perspective on next steps for their state and for collaboration across participant countries.

Conclusions and next steps

Velina Pendolovska, Policy Officer, Unit on Crisis Management and Preparedness in Health, DG SANTE, gave the closing talk and thanked the participants for their time, input and contributions. She noted that preparedness is a vast topic and it is not possible to cover all aspects, particularly given the diversity of participant countries. A highlight of common themes included:

- **IHR core capacities**: More collaboration with the WHO is required in the implementation, aligning activities to strengthen and maintain core capacities.
- **Business continuity planning**: Mandates can often be an issue. Political support and a legal base are important for success. Training, testing and risk communications are all essential, and there is a need for these across sectors.
- **Intersectorality**: Most participant countries seem comfortable with addressing biological threats to health. However, chemical and environmental threats to health appear more challenging, as they require strengthening of work across sectors.
- **Collaboration within the EU and beyond:** While collaborating with civil protection authorities does not seem to be a challenge, other intersections are more complicated, including for example with the transport and energy sectors. Different collaboration challenges exist at each level: local, regional and national.

Ms. Pendolovska reiterated the objective of the workshop was to identify gaps and take stock of the state of preparedness, in support of discussions at the Health Security Committee.

GLOSSARY

AMR	Anti-microbial resistance
BCPs	Business Continuity Plans
CBRN	Chemical, biological and radio-nuclear
CHAFEA	Consumers, Health, Agriculture and Food Executive Agency
CPLC	Community of Portuguese Language Countries
CRCE	Centre for Radiation, Chemical and Environmental Hazards
DG ECHO	Directorate General for European Civil Protection and Humanitarian Aid Operations
DG HOME	Directorate General for Migration and Home Affairs
DG SANTE	Directorate General for Health and Food Safety
EC	European Commission
ECA	European Court of Auditors
ECDC	European Centre for Disease Prevention and Control
ECHA	European Chemicals Agency
EEA	European Economic Area
EFSA	European Food Safety Authority
EFTA	European Free Trade Association
EMA	European Medicines Agency
EMC	European Medical Corps
EQA	External Quality Assessment
EU	European Union
EWRS	Early Warning and Response System
GOARN	Global Outbreak Alert and Response Network
HEOF	Health Emergency Operations Facility
HR	Human Resources
HSC	Health Security Committee
IHR	International Health Regulations (2005)
JEE	Joint External Evaluation
MERS	Middle Eastern Respiratory Syndrome
MOH	Ministry of Health
NATO	North Atlantic Treaty Organization
NPFS	National Pandemic Flu Service
PEF	Pandemic Emergency Financing Facility

PHEIC	Public Health Emergencies of International Concern
PHM	Public Health Microbiology
PIP	WHO Pandemic Influenza Preparedness (PIP) Framework
POE	Points of Entry
SARS	Severe Acute Respiratory Syndrome
SOP	Standard Operating Procedure
TFEU	Treaty on the Functioning of the European Union
WEF	World Economic Forum
WHA	World Health Assembly
WHE	WHO Health Emergencies Programme
WHO	World Health Organisation

INTRODUCTION

Background to the workshop

The past decade has seen an increase in the number of serious cross-border threats to health. Some key drivers behind this trend are new and re-emerging infectious diseases, increasing international trade volumes, international passenger air travel, global warming, and the risk of natural and man-made disasters and health emergencies.

International cooperation on serious cross-border threats to health in the EU is based on:

- Decision No 1082/2013/EU[4] of the European Parliament and of the Council of 22 October 2013 on serious cross-border threats to health, which provides the legal framework for EU Member States to collaborate on preparedness planning, joint procurement, epidemiological surveillance, and ensures early warning of and a coordinated response to threats to health of biological, chemical, environmental or unknown origin, through the Health Security Committee (HSC).
- The WHO IHR[5] of 2005, which provides the legally binding framework for all States Parties to be prepared for and act on serious cross-border threats to health. They define what may constitute Public Health Emergencies of International Concern (PHEIC) and the core capacities every State Party needs to build.

Decision 1082/2013/EU lays out elements of coordination of preparedness and response planning in the EU including through sharing best practice and experience; promoting the interoperability of national preparedness planning; addressing the intersectoral dimension; and supporting the implementation of IHR core capacity requirements.

The workshop explored the progress made in preparedness, while offering the opportunity to share experiences and best practices.

Objectives for the workshop

The main objective of the workshop was to determine the state of play of preparedness in the EU, taking into account:

- The Council conclusions on the lessons learned from the Ebola outbreak[6].
- The results of the report on the state of preparedness and response planning in the EU Member States (under Article 4 of Decision 1082/2013/EU)[7].
- The outcomes of the various simulation exercises, workshops, studies and surveys commissioned by DG SANTE over recent years.

In addition, the workshop was designed to strengthen and promote preparedness by:

- Taking stock of preparedness capacity built by the Commission and EU Member States, and identifying gaps.

---

[4] Additional information about the Decision (1082/2013/EU) can be found on the DG SANTE website at: http://ec.europa.eu/health/preparedness_response/policy/index_en.htm Decision No 1082/2013/EU of the European Parliament and of the Council of 22 October 2013 on serious cross-border threats to health and repealing Decision No 2119/98/EC; OJ L 293, 5.11.2013, p. 1–15

[5] http://www.who.int/topics/international_health_regulations/en/

[6] Council conclusions on 'Lessons learned for Public Health from the Ebola outbreak in West Africa — Health Security in the European Union'. Council of the European Union (2015). Available from: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015XG1217(02)&from=EN

[7] 'Report on the implementation of Decision No 1082/2013/EU'. European Commission (2015). Available from https://ec.europa.eu/health//sites/health/files/preparedness_response/docs/report_decision_serious_crossborder_threats_22102013_en.pdf http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015DC0617&from=EN

- Fostering discussion on how to bridge gaps identified by the HSC, especially in the areas of bio-toxins and chemical and environmental threats to health.
- Sharing best practice on how health systems have successfully integrated intersectoral cooperation in crisis management.

Types of health threat covered

The workshop covered different types of cross-border health threats, in accordance with those covered by Decision 1082/2013/EU, including of biological, chemical, environmental and unknown origin.

Participants

When referring to **"Member States",** without specifying further, reference is made to EU Member States. **"Participant Countries"** refers to EU Member States, plus Norway, Iceland and Serbia.

The following countries and organisations participated:

Member States:

- Austria
- Belgium
- Bulgaria
- Croatia
- Czech Republic
- Estonia
- France
- Germany
- Greece
- Hungary
- Italy
- Latvia
- Lithuania
- Netherlands
- Poland
- Portugal
- Slovakia
- Sweden
- United Kingdom

Other countries

Norway, Iceland, Serbia

International Organisations

WHO Regional Office for Europe (WHO/Europe), **European Commission services and EU agencies**

Unit on Crisis Management and Preparedness in Health, DG SANTE; DG ECHO; DG HOME; ECDC; CHAFEA[8].

[8] See: Glossary

CONDUCT OF THE WORKSHOP

Workshop design and format

The workshop was held on 25th – 27th April 2018 in Luxembourg. Content sessions were organised around the dimensions used in the "template to be used by the Member States for providing the information on preparedness and response planning" of Decision 1082/2013/EU, namely preparedness planning, implementation of IHR core capacities, business continuity planning and intersectorality, as well as collaboration in the EU and beyond. The workshop was facilitated by McKinsey & Company. Leading experts in the field were invited as speakers, keynote speakers or panellists. In addition, there was the opportunity for country participants to share their own experiences in the form of a speed talk. Live polling, small group discussions and gallery walks provided additional opportunities for the exchange of ideas and an assessment of the state of preparedness in the EU. The Mentimeter, an app that allows real-time interaction via mobile phones and laptops with the audience, was used to collect feedback and thoughts from participants.

Workshop location

The workshop was held at the Alvisse Parc Hotel in Luxembourg.

Workshop date and time schedule

The workshop was conducted over three days, 25th – 27th April 2018. The agenda for the workshop is included below:

Wednesday, 25th April 2018 (day 1)

Time	Session	Description
12:00 – 13:00	Lunch	
13:00 – 13:30	Opening	Opening by **Dr. Wolfgang Philipp, Head of Unit on Crisis Management and Preparedness in Health, DG SANTE,** and Introduction to the EU health security framework by **Dr. Agnes-Marta Molnar, Deputy Head of Unit on Crisis Management and Preparedness in Health, DG SANTE**
13:30 – 14:30	Gallery walk	Introduction to IHR implementation, business continuity planning, intersectorality and collaboration within the EU and beyond
14:30 – 15:45	Content session I.	**Topic: Preparedness planning** An introduction to preparedness planning by **Prof. Jonathan Van-Tam, Deputy Chief Medical Officer for England, UK Department of Health** Speed talks by participants Group discussion
15:45 – 16:15	Break	
16:15 – 17:30	Content session II.	**Topic: Implementation of IHR core capacities** Introduction to the WHO'S Health Emergencies Programme by **Dr. Mike Ryan, Assistant Director-General in the WHO Health Emergencies Programme** Introduction to IHR core capacities by **Dr. Dina Pfeifer, Medical Officer within the WHO Health Emergencies Programme** Small group discussions
17:30 – 18:00	Debrief Day 1	Feedback and key learnings for the day
18:00 – 19:00	Free time	
19:00 - 22:00	Dinner	

Thursday, 26th April 2018 (day 2)

Time	Session	Description
09:00 – 09:20	Objectives for the day	Introduction to the objectives for the day and a quick reflection on the previous day
09:20 – 11:00	Content session III.	**Topic: Business continuity planning** Introduction to business continuity planning by **Dr. Francesca Viliani, Head of Public Health, International SOS** Speed talks by participants Four breakout groups, covering a type of threat each, to discuss challenges and learnings
11:00 – 11:30	Break	
11:30 – 12:00	Keynote speech	New threats of biological and chemical terrorism by **Wiktor Wojtas, Policy Analyst in the Terrorism and Radicalisation unit of DG Home, responsible for CBRN matters**
12:00 – 13:00	Panel debate	**Topic: Preparedness planning for new types of threat** Chaired by **Prof. Ilona Kickbusch**, Director of the Public Health Programme and Adjunct Professor at the Graduate Institute of International and Development Studies, Geneva. Panellists are **Wiktor Wojtas**, Prof. **David Russell**, **Dr. Francesca Viliani, and Dr. Clément Lazarus and Mr. Gerasimos Gerolymatos** (representatives from France and Greece)
13:00 – 14:00	Lunch	
14:00 – 15:30	Content session IV.	**Topic: Intersectorality** Introduction to intersectorality by **Prof. David Russell, Head of CRCE-Wales/WHO-Collaborating Centre for Chemical Incidents** Speed talks by participants Discussion in breakout groups
15:30 – 16:00	Break	
16:00 – 16:30	Content session V.	**Topic: Collaboration within the EU and beyond** EU action under the Medical Corps and the civil protection mechanism by **Dr. Evelyn Depoortere, Policy Officer, DG ECHO**
16:30 – 17:30	Keynote speech	Speech by **Dr. Christos Hadjichristodoulou, EU SHIPSAN ACT Joint Action** Discussion in breakout groups
17:30 – 18:00	Debrief Day 2	Feedback and key learnings for the day
18:00 – 19:00	Free time	
19:00 - 22:00	Dinner	

Friday, 27th April 2018 (day 3)

Time	Session	Description
09:00 – 09:20	Objectives for the day	Introduction to the objectives for the day and a quick reflection on the previous day
09:20 – 10:15	Content session V continued.	The role of ECDC in preparedness, by **Dr. Massimo Ciotti, Head of the Preparedness Section and Deputy Head of the Public Health Capacity and Communication Unit, ECDC** Strengthening microbiological capacities in the EU, by **Prof. Marc Struelens, Chief Microbiologist and Head of Microbiology Coordination Section, ECDC** Discussion
10:15 – 11:50	Summary and recommendations	Summary statements by participant countries and recommendations
11:50 – 12:00	Conclusions and next steps	Final parting words by **Ms. Velina Pendolovska, Policy Officer, Unit on Crisis Management and Preparedness in Health, DG SANTE**
12:00 – 13:00	Lunch and departure	

DAY 1

Welcome

Speaker: Dr. Wolfgang Philipp, Head of Unit on Crisis Management and Preparedness in Health, DG SANTE

Dr. Philipp welcomed the speakers and the participants from 22 countries. He introduced Decision 1082/2013/EU and its key components, and noted the timeliness of the conference: the European Commission (EC) is currently analysing the Member States' responses to the latest round of preparedness questionnaires ahead of an HSC meeting.

The workshop would be organized around the topics of: the IHR core capacities, intersectorality, interoperability, and cooperation within and beyond the EU.

Specifically, the main objectives for the workshop were:

- To take stock of current preparedness capacity in participant countries, identify gaps and strengths, and define opportunities to achieve a consistent level of preparedness and interoperability in national preparedness plans across participant countries.
- To promote intersectoral cooperation between participant countries, at EU and regional level, to share and discuss best practices, and identify synergistic approaches to efficiently collaborate between health and other critical sectors.
- To provide an update on the progress made and discuss gaps and challenges towards strengthening the implementation of the IHR, in view of the global emergency preparedness context.

In his closing words he emphasised that preparedness is key, as "failing to prepare, is preparing to fail".

Introduction to the EU Health Security Framework

Speaker: Dr. Agnes-Marta Molnar, Deputy Head of Unit on Crisis Management and Preparedness in Health, DG SANTE

Dr. Molnar introduced the background to the EU Health Security Framework and described Decision 1082/2013/EU on cross-border threats to health to coordinate preparedness and responses to health emergencies across the EU.

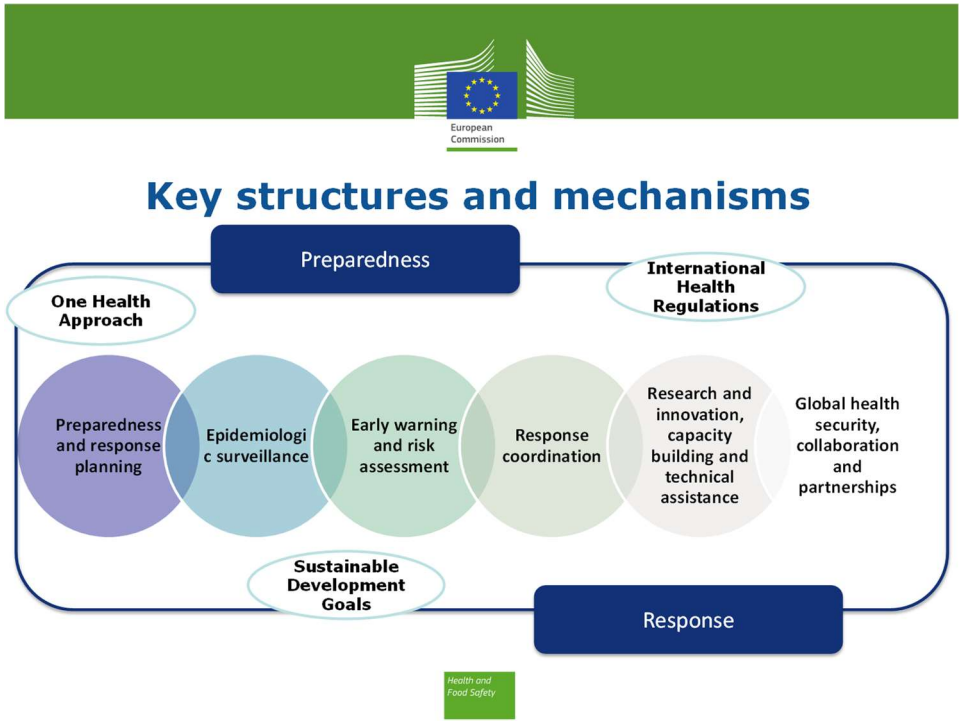
Under the EU health security framework, the European Commission works with Member States, EEA and neighbouring countries in cooperation with EU agencies, in particular the ECDC, Europol, European Food Safety Authority (EFSA), European Chemicals Agency (ECHA) and European Medicines Agency (EMA), international organizations, such as the WHO, and global initiatives. Key structures and mechanisms include:

- preparedness and response planning, covering IHR core capacities, intersectorality, interoperability of national preparedness planning, and collaboration and sharing of best practices;
- the voluntary Joint Procurement Agreement for pandemic vaccines and other medical countermeasures, currently including 24 countries;
- the network for epidemiological surveillance of communicable diseases, operated by the ECDC;
- the Early Warning and Response System (EWRS), a rapid alert system for notifying EU-level alerts, which allows the Commission and the responsible authorities at national level to be in permanent communication for the purposes of alerting, assessing public health risks and determining the measures to take;
- rapid risk assessments provided by the ECDC, Scientific Committees or other agencies according to the health threat;

- the HSC for information exchange, consultation and coordination of responses to health threats;
- the EU Health Programme for supporting Member States through training and exercises, and by facilitating the sharing of experiences.

Key structures and mechanisms are highlighted in **Exhibit 1** below:

EXHIBIT 1



Dr. Molnar described the role of other services of the Commission, the key achievements of the EU in this field, and priority areas of the Health Security Committee Action Plan on preparedness and IHR implementation. She also summarised the findings of the recent report on preparedness, and described recent exercises and workshops, such as the 'Exercise Chimera', the first EU-wide exercise addressing hybrid threats. Dr. Molnar mentioned that participants' input would be helpful for the meeting of the Joint Action on Preparedness and Laboratories. In response to a question about potential changes to EWRS, Dr. Molnar described the new platform under development, which aims to improve situational awareness, early warning and reporting, add modules on preparedness and communication, and strengthen user-friendliness. Dr. Molnar emphasised that linkages to other EU Alert and Information Systems, and collaboration with the ECDC, EU Member States and the WHO are of key importance.

Gallery walk

The gallery walk introduced participants to the topics to be covered in the workshop. The gallery walk featured four different stations: IHR core capacities, business continuity planning, intersectorality and collaboration within the EU and beyond. Participants went from station to station, discussing each topic, supported by a facilitator and later shared their views in discussions at their tables and at the plenary. Participants reviewed a series of posters in the four stations, of which selected exhibits are included under each section in the pages that follow.

IHR key competencies

Exhibit 2 describes the IHR eight core capacities, four potential hazards and points of entry.

EXHIBIT 2

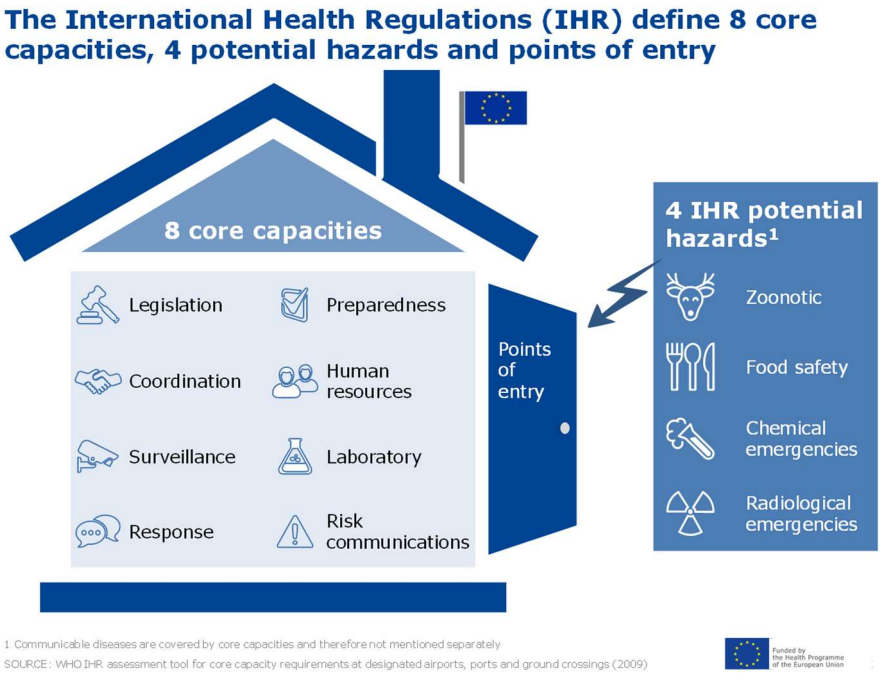
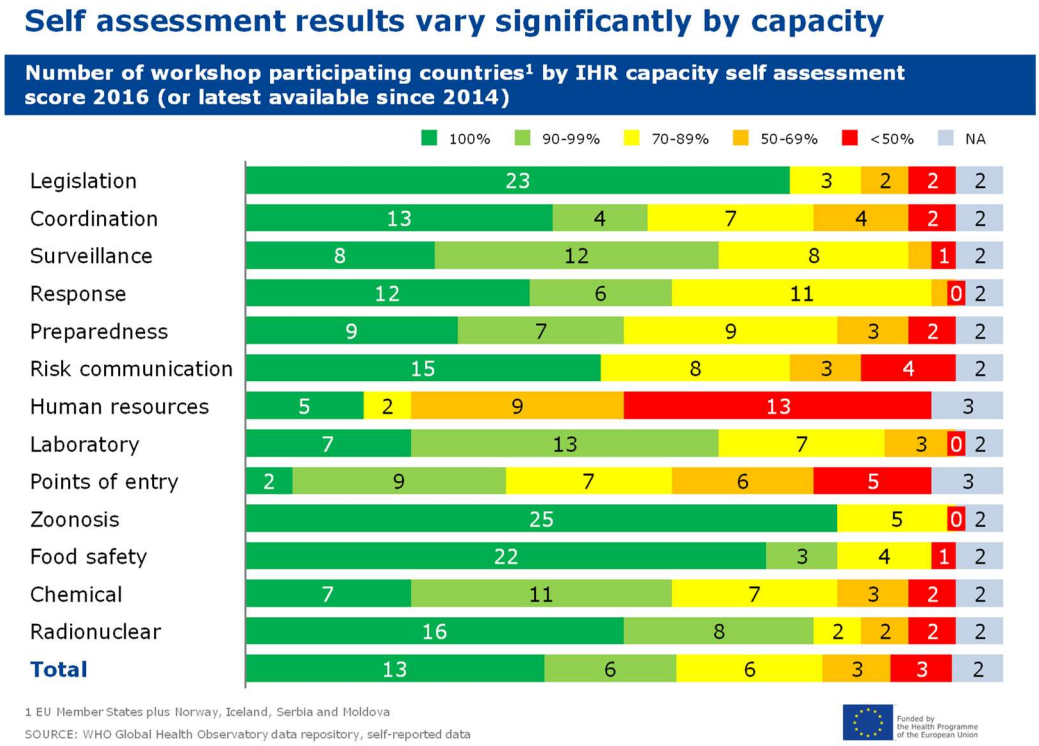


Exhibit 3 illustrates the variation of self-assessments by IHR capacity

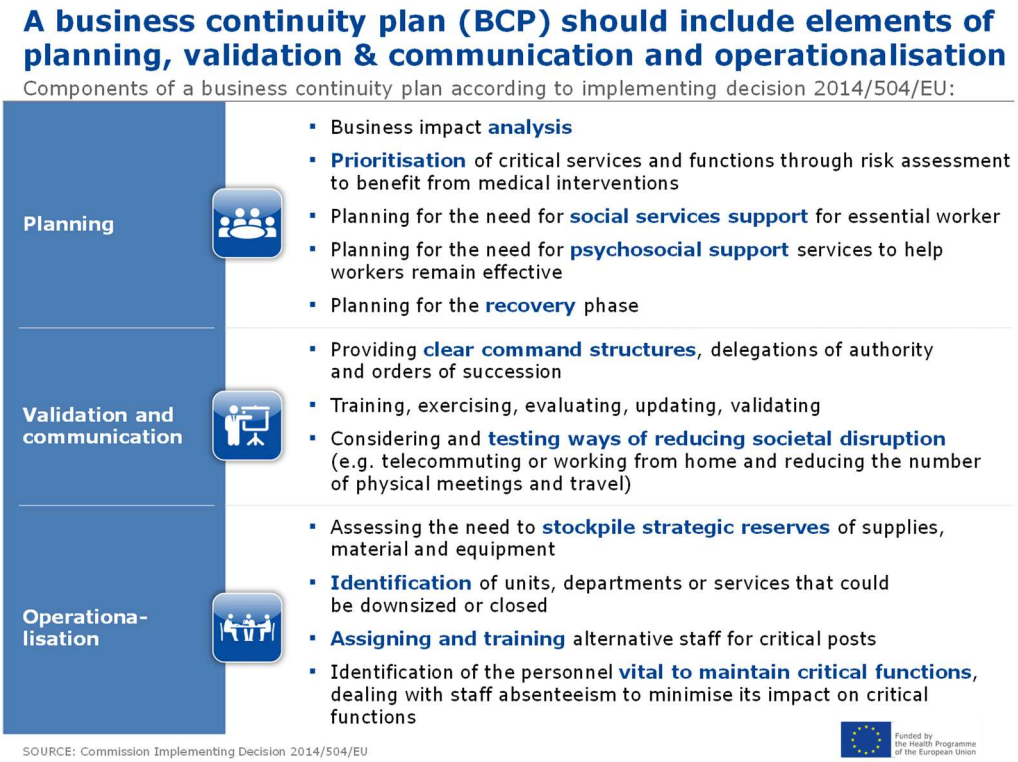
EXHIBIT 3



Business continuity planning

Exhibit 4 emphasises the key elements of BCPs: planning, validation, communication and operationalisation

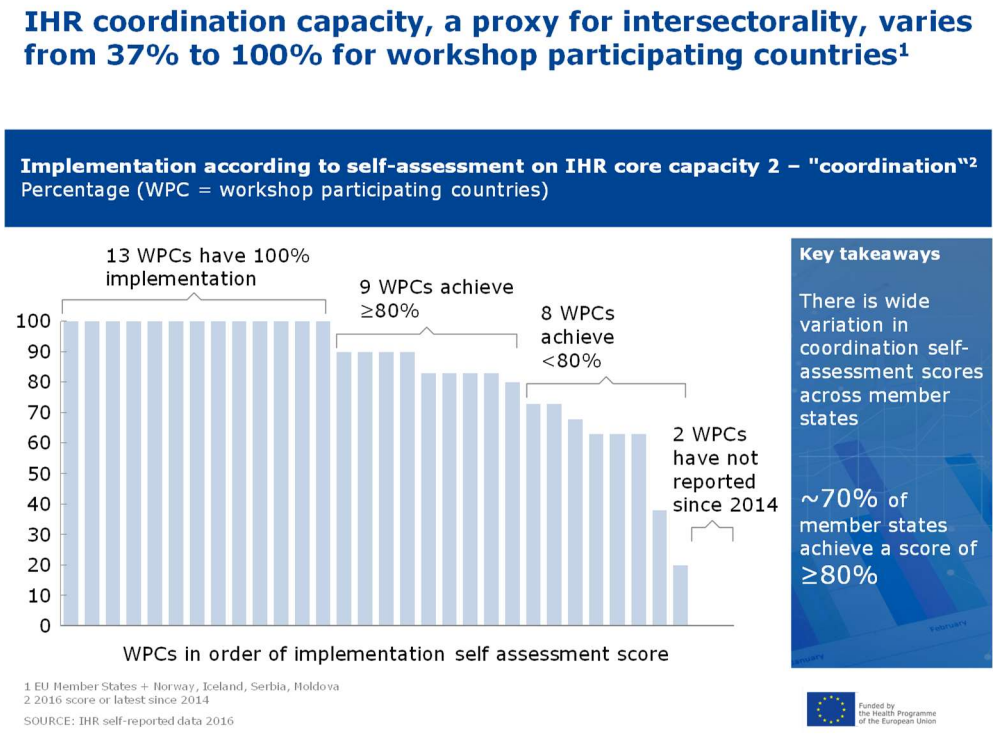
EXHIBIT 4



Intersectorality

Exhibit 5 highlights differences in IHR coordination capacity for participant countries.

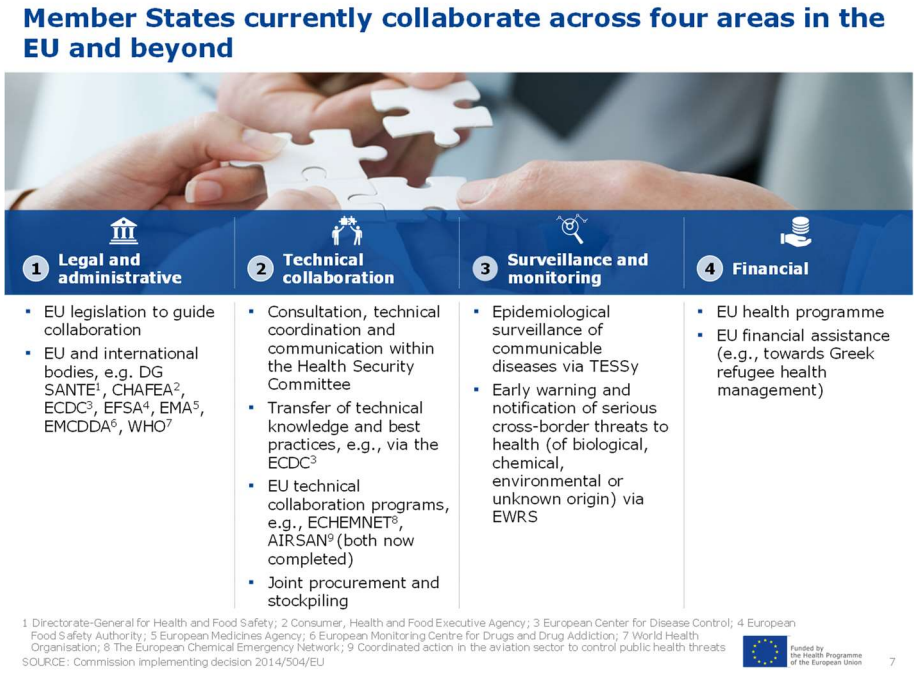
EXHIBIT 5



Collaboration within the EU and Beyond

Exhibit 6 emphasises the four core areas in which Member States currently collaborate in the EU and beyond: legal and administrative, technical collaboration, surveillance and monitoring, and financial issues.

EXHIBIT 6



Preparedness planning

To begin the discussion, participants were invited to discuss their priorities and challenges in preparedness planning, clustering into groups with similar priorities. The clusters reflected the greatest perceived challenges, which were:

- Intersectoral coordination / interoperability.
- Involving multiple actors (within and across sectors).
- Difficulty in communicating at different levels of action (national, regional, and local).
- Highly variable threats to health, making it difficult to be prepared to address a specific one (e.g., there are hundreds of millions of threats in chemicals and threats are continuously evolving).
- Overall difficulty in preparing for cross-border health threats due to complexity.

Introduction to Preparedness Planning

Speaker: Professor Jonathan Van-Tam, Deputy Chief Medical Officer for England, UK Department of Health

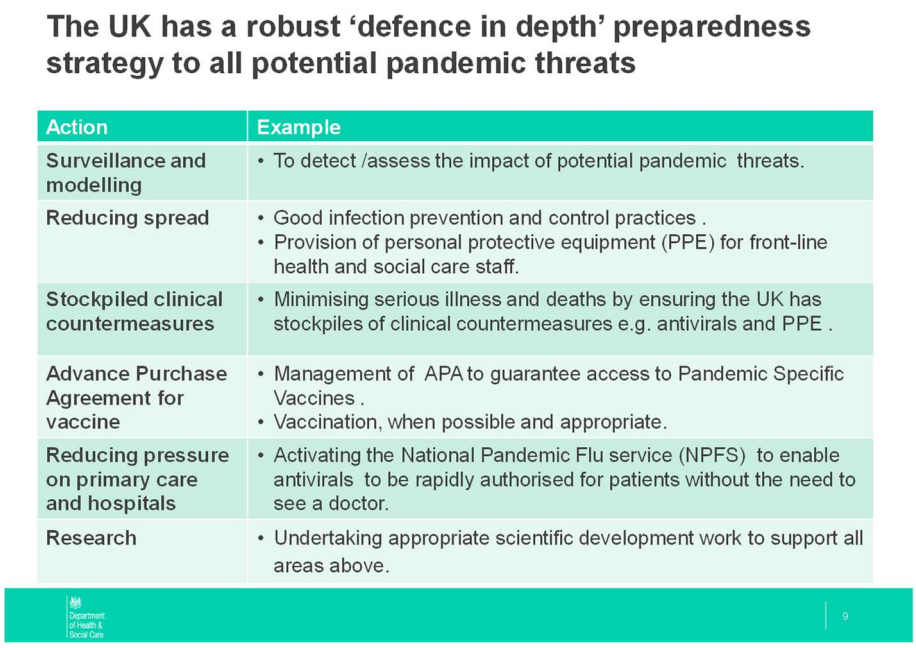
Prof. Van-Tam mentioned that the first UK preparedness plan covered a small number of areas, but things progressed following the 2005 live cross-EU exercise on pandemic preparedness and interoperability. There is now a solid understanding of key risks to health under the Emergency Preparedness and Resilience Team, with pandemics and the climate listed as top risks. However, this varies by country. In addition, there are complex risks to consider, such as nuclear or chemical accidents.

Pandemics, especially influenza, remain a top priority. Anticipated events in the case of a pandemic include: consecutive waves of exposure, increasing mortality, severe impact on the young and old population, a rapid international spread and widespread disruption of society, including disruption of critical infrastructure. The UK Strategy addresses the key priority risks with concrete actions. For example:

- **Planning for pandemic vaccines,** as given the structure and function of the supply chain of companies, pandemic vaccines may arrive late.
- **'Sleeper contracts' on research issues** that can only be researched during the pandemic, which can be launched with 6 weeks' notice.
- **Collaboration with the media,** including campaigns (e.g., "Catch it, Bin it, Kill it") that are memorable and help change behaviours.
- **Activation of the National Pandemic Flu Service (NPFS)** which prioritizes children, older people, chronic patients and other vulnerable populations. There is a phone-based triage and antivirals can be prescribed over the phone.

Exhibit 7 below highlights the key elements of the UK 'defence in depth' preparedness strategy to all potential pandemic threats.

EXHIBIT 7



The UK has a robust 'defence in depth' preparedness strategy to all potential pandemic threats

Action	Example
Surveillance and modelling	• To detect /assess the impact of potential pandemic threats.
Reducing spread	• Good infection prevention and control practices . • Provision of personal protective equipment (PPE) for front-line health and social care staff.
Stockpiled clinical countermeasures	• Minimising serious illness and deaths by ensuring the UK has stockpiles of clinical countermeasures e.g. antivirals and PPE .
Advance Purchase Agreement for vaccine	• Management of APA to guarantee access to Pandemic Specific Vaccines . • Vaccination, when possible and appropriate.
Reducing pressure on primary care and hospitals	• Activating the National Pandemic Flu service (NPFS) to enable antivirals to be rapidly authorised for patients without the need to see a doctor.
Research	• Undertaking appropriate scientific development work to support all areas above.

The UK has developed concrete plans and mechanisms to launch at short notice, and continually revises them.

In response to participant questions on the likelihood of a major pandemic, Prof. Van-Tam stated that the H1, H2, and H3 viruses have caused human pandemics of influenza in the past. Avian threats are particularly worrying and there is concern around H7N9 and its potential impact. Current mortality rates in the avian population can be over 30% of the exposed population. If the virus became rapidly transmissible to humans, mortality would be lower than this, but still comparatively high. As an example, the 1918 Influenza was extremely severe with a much lower fatality rate, which indicates the importance of preparation and planning.

Speed talk: Iceland

Representatives from Iceland described the severe threat from volcanic eruptions and related flooding in ice-covered areas, and the country's process of planning and testing at

the local and national level to address future threats to health. A core aspect appeared to be engagement across stakeholders and with the local population, and it included:

- A business continuity plan template for local communities to adapt to their needs.
- Involvement of local county, healthcare, education and other local bodies.
- Involvement of families through local meetings to ensure the plan is known and followed when a risk occurs.

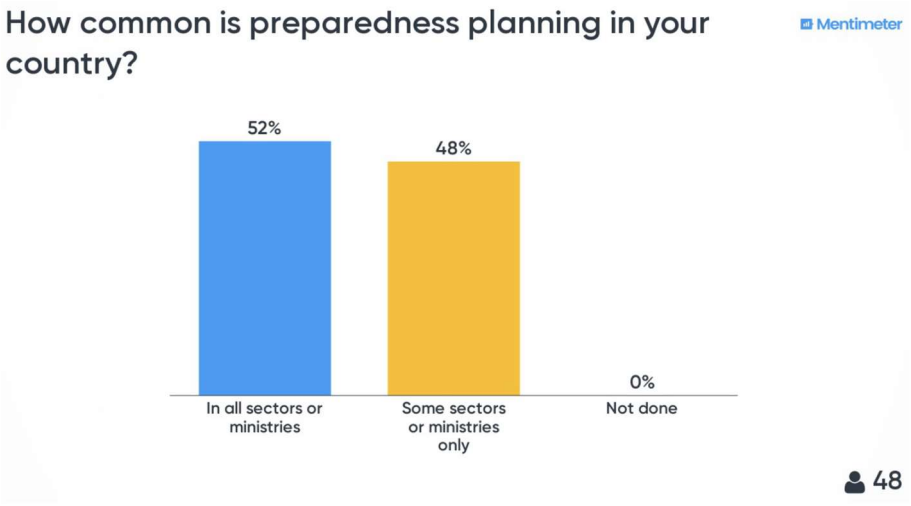
The ECDC and other organisations were given special credit for helping Iceland engage more effectively with communities.

Polling

Following the speed talk, the facilitators used the Mentimeter app to assess the overall preparedness of the participant countries. The following findings were noted:

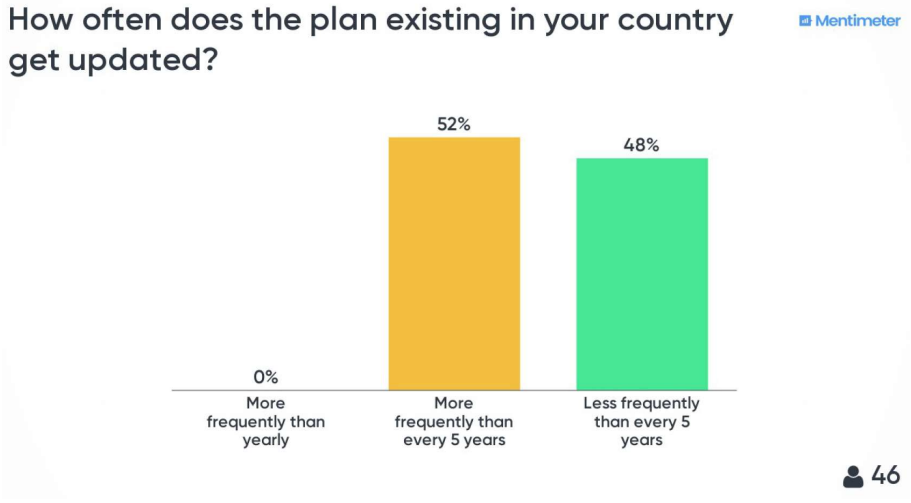
- 52% of participants found preparedness planning was common in all sectors or ministries in their country, while 48% stated this was so in some sectors or ministries only (as highlighted in **Exhibit 8** below)

EXHIBIT 8



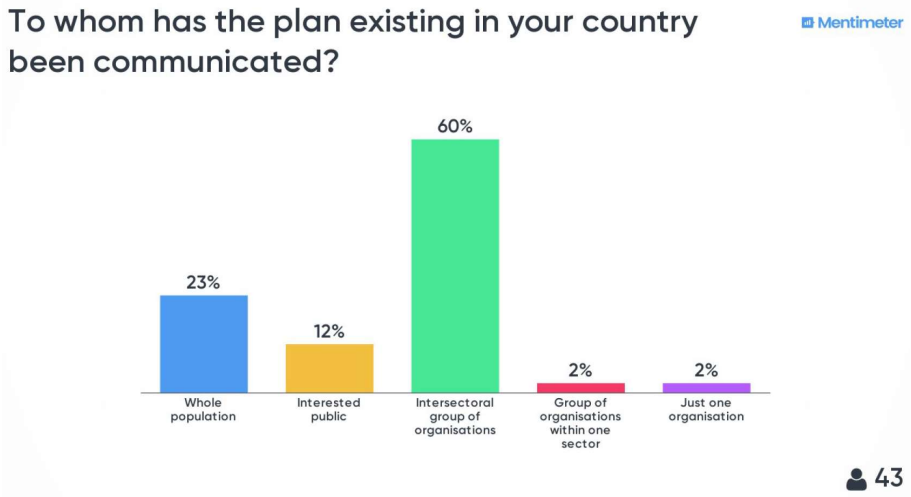
- 52% of participants found their country's existing plan was updated more frequently than every five years, with 48% saying less frequently (**Exhibit 9**). No countries mentioned that updates occurred more frequently than annually.

EXHIBIT 9



- 23% of participants said the existing plan was communicated to the whole population, 12% to the interested public, 60% to an intersectoral group of organizations, 2% to a group of organizations within one sector and 2% to just one organization (**Exhibit 10).**

EXHIBIT 10



Implementation of IHR core capacities

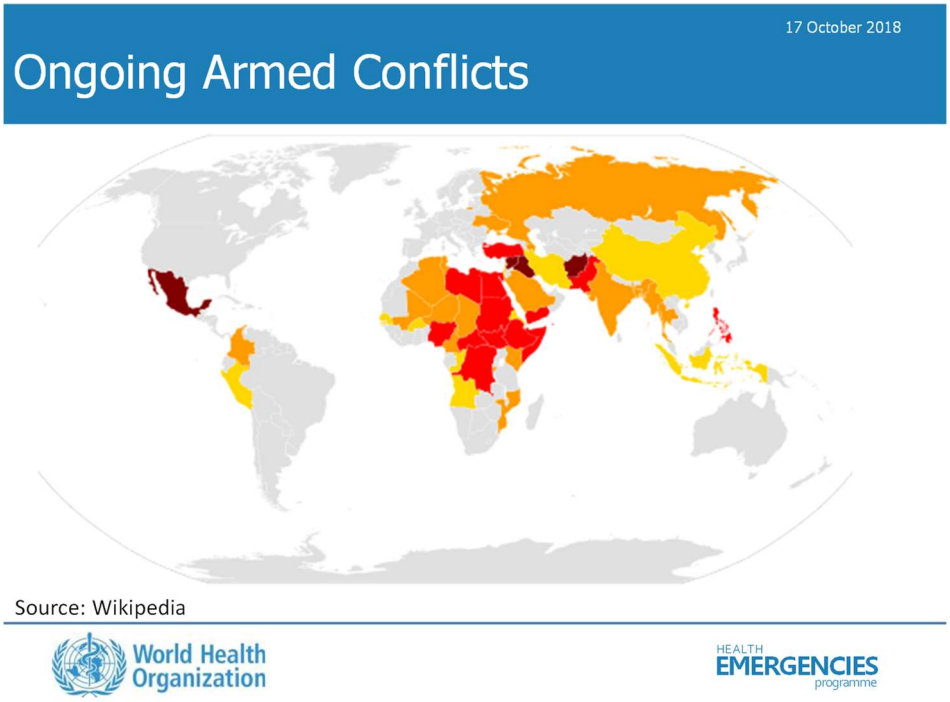
Introduction to the WHO's Health Emergencies Programme (WHE)

Speaker: Dr. Mike Ryan, Assistant Director-General in the WHO Health Emergencies Programme

The same geographies in specific parts of Africa, the Gulf and South Asia demonstrate the highest biodiversity, but also often the highest levels of vulnerability to address a health risk or crisis. Some 80% of epidemics can be traced to thirty vulnerable countries, with high mobility of populations across borders. Millions of people globally are also displaced, living as refugees, largely in less developed countries and often in camps with poor hygiene and public health conditions. Some 1% of the world population has been displaced, with an average displacement time of 17 years. Recent increases in mobility, trade, immigration, airline routes, all amplify what could have been a more contained crisis in earlier times.

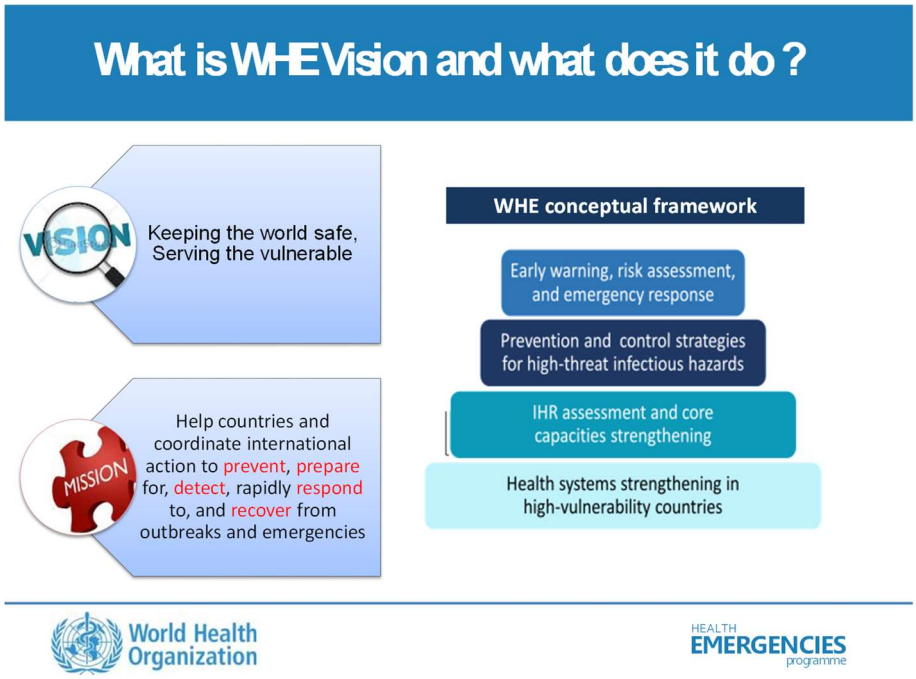
Exhibit 11 highlights ongoing armed conflicts listed by the WHE.

EXHIBIT 11



The WHE Programme is less than two years old, born from the Ebola crisis, with the vision of "Keeping the world safe, serving the vulnerable" (a high-level description of what the WHE vision is and what the programme does is provided in **Exhibit 12** below). The WHE Programme focuses on the most vulnerable countries, aiming to align strategies with specific country needs. It has an 'all hazards', multi-sectoral approach. The main challenges of the programme include implementation of the strategy, community engagement and addressing funding gaps. Funding has increased, but it remains limited to a number of core donors.

EXHIBIT 12



The IHR (2005) supported the WHO in introducing a step-change in its operations in this area. For example, the WHO now focuses on core initiatives more ambitiously, e.g., R&D,

defining priority pathogens every year and operationalizing partnerships (e.g., Global Outbreak Alert & Response Network (GOARN)).

Introduction to IHR core capacities

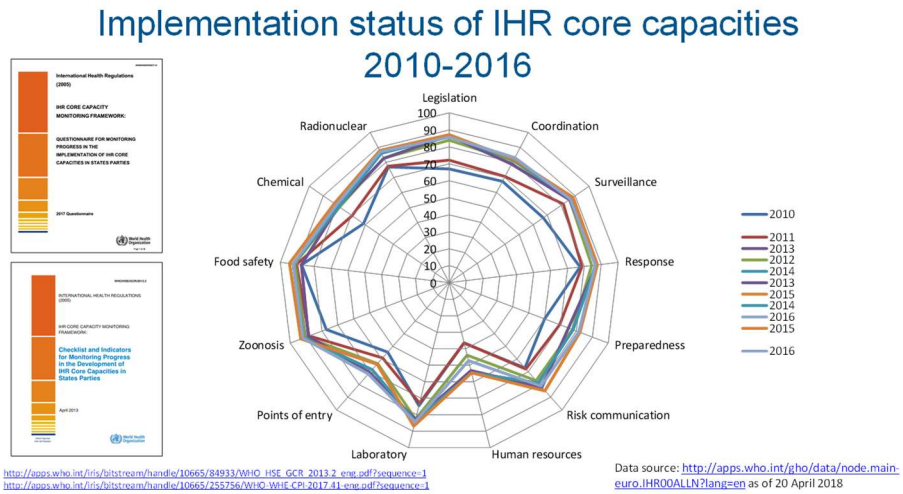
Speaker: Dr. Dina Pfeifer, Medical Officer within the WHO Health Emergencies Programme

Countries have tried to address health risks in different ways. Internationally, there were efforts to coordinate across countries since the 19th century and the World Health Assembly (WHA) adopted the International Sanitary Regulation in 1951.

In 2003, the Severe Acute Respiratory Syndrome (SARS) clearly outlined shortfalls of the IHR (of 1969 and its amendments of 1973 and 1981). The experience and the lessons acquired during the SARS response were taken into account during the IHR revision, leading to a major shift towards containment at source, covering all public health hazards and adapting the response to specific incidents. Member States have a legal obligation to enforce the IHR, regardless of the ratification date. There are several barriers to IHR implementation, for example: insufficient awareness, particularly in the non-health sector; lack of an intersectoral approach; limited international collaboration; and misinterpretation of the IHR core capacities' implementation status.

The WHO Region of Europe shows considerable variability of IHR capacities across Member States, with human resources and points of entry identified as main areas requiring improvement over recent years. There is a risk that countries overestimate their IHR core capacities in the self-assessment. There is also some risk that countries lose some important capacities over time, as they may not be needed at present or are not seen as economically viable (e.g., viral isolation capacity reduced or unavailable due to widespread use of rapid molecular assays, RT-PCR, and other nucleic acid amplification tests), thus reducing capacity to respond timely and effectively to a major outbreak. A synthesis of the implementation status of the IHR core capacities in 2010-2016 is provided in **Exhibit 13** below.

EXHIBIT 13



Breakout on IHR core capacities

Following Dr. Pfeifer's speech, participants were divided into groups and discussed specific aspects of IHR core capacities, focusing on legislation, coordination, surveillance, laboratory capacity, risk communication, overall preparedness, human resources and response planning, in preparation for the discussions in Day 2 of the workshop. A synthesis of participants' perspectives from the group discussions was shared at the opening session of Day 2 (listed in the following section).

DAY 2

Objectives for the day

Participants shared key points from the previous day:

- Countries share many problems in health preparedness despite different systems.
- Human resources are a recurring challenge, both in terms of quantity and quality, capabilities and training.
- BCPs are critical, but the experience of business continuity planning varies across and within countries
- Coordination is a key challenge, including between sectors and, in particular, with sectors beyond health.

Business continuity planning

Introduction to business continuity planning

Speaker: Dr. Francesca Viliani, Head of Public Health at International SOS

Key points:

Dr. Viliani opened the discussion by asking which countries had an in-depth understanding of the principles of business continuity planning. Participants acknowledged that more education and training could be helpful. Dr. Viliani emphasized that BCPs are not the same as emergency response plans. BCPs include what organisations must do to remain operational and therefore have a much longer time horizon.

Dr. Viliani shared the guiding principles for BCPs. These comprise: keep it simple, focus on what can go wrong, maximize resources, and put in place excellent procedures for operationalisation (and keep testing them). Moreover, the management team needs to be multi-sectorial and multi-disciplinary. Solutions should be tailored to the local level. Communication from the start is key to confronting public anxiety and to providing transparency. Finally, planning should be overseen by those responsible for implementation, with the understanding that regular testing is critical.

Participants mentioned that stakeholders often mix emergency planning and business continuity planning. They added that there was a need to clarify how these are linked and where they differ. They also said that the main challenge remains collaborating and coordinating across sectors.

Dr. Viliani said business continuity planning can be divided into four key stages:

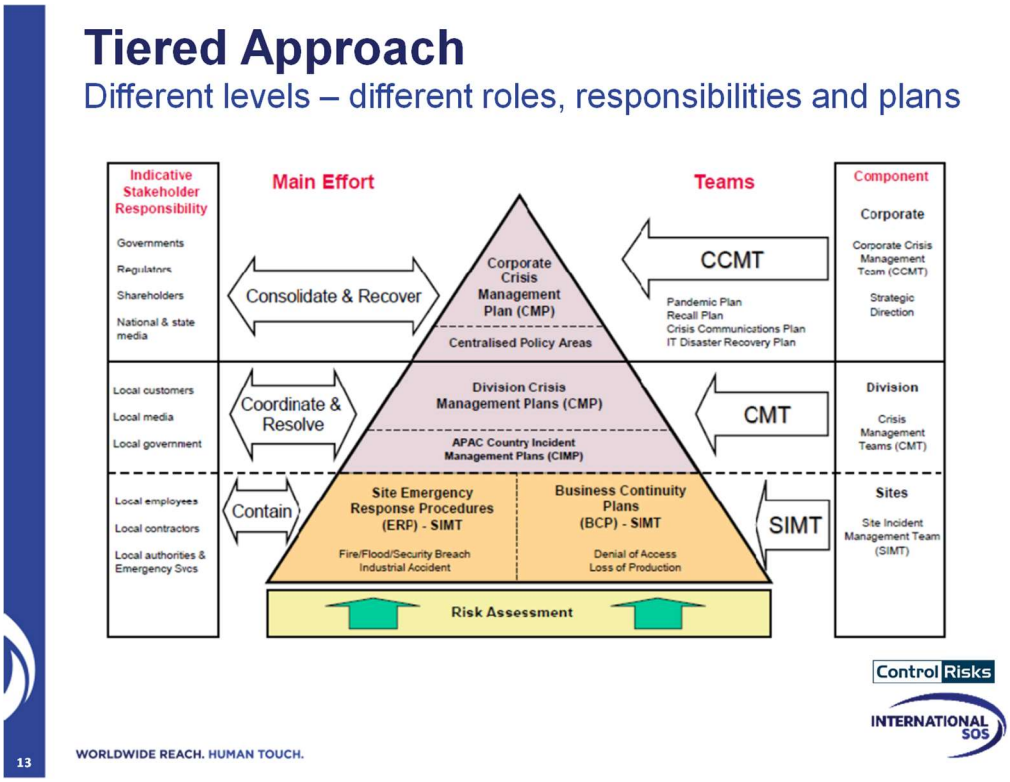
1. Business analysis
2. Strategy and plan development
3. Implementation and training
4. Exercise, audit, review

Business analysis includes risk assessment and business impact analysis. The objective of the risk assessment is to determine events that can adversely affect business and define the possible consequences. The objective of the business impact analysis is to identify critical business functions essential for providing services and products. Every organisation needs to do this. For example, during a pandemic there may be a sharp increase in employee absence due to illness, fear and panic. A special plan is, therefore, needed to address staff shortages within each organisation.

The strategy and plan development phase is required in order to determine an acceptable level of impact, define potential recovery costs and levers to ensure operational

continuity. This phase is essential in order to write the plan and put together any necessary supporting documents. Governance mechanisms should be clear and communication should be coherent. The plan should be drafted and approved by senior management. Then communication must be disseminated to the entire supply chain (e.g., companies providing masks or gloves for health workers). A tiered approach is required, with different roles, responsibilities and plans by level (e.g., local vs. central) (**Exhibit 14**). The Ebola outbreak in West Africa was a good example of where BCPs were essential, Dr. Viliani said.

EXHIBIT 14



Dr. Viliani emphasised that regular testing of robustness of plans' assumptions and assigning clear 'owners' for specific responses was a fundamental part of success in a business continuity planning process.

Speed talk: Iceland

Iceland representatives gave a speed talk, focusing on business continuity planning and emphasizing the importance of a multi-sectoral approach. They highlighted the need for temporary centres during events such as earthquakes and volcanic eruptions, which should be able to offer various public services.

Speed talk: Norway

Norway representatives shared aspects of BCPs in the context of 2011 terrorist attacks on a government building and the significant advances the country has achieved since these events.

During breakouts, participants had time to discuss challenges and recommendations relating to business continuity planning, including the importance of regular exercises to test the robustness of BCPs.

Breakout debrief

To debrief from the breakouts, participants were asked two questions, using the Mentimeter app:

What do you see as the main challenges for your country related to business continuity?

Key elements mentioned included:

- Human resources.
- Capability.
- Coordination across sectors; alignment and preparation.
- Responsibility of individual sectors, but also need to work across sectors given interdependencies.

What are the potential solutions as they relate to business continuity planning?

Key elements mentioned included:

- Political support.
- Ownership at multiple levels.
- Training and support.
- Dynamic review and testing.
- Communication.

New threats of biological and chemical terrorism

Speaker: Mr. Wiktor Wojtas, Policy Analyst in the Terrorism and Radicalisation unit of the European Commission's Directorate General Migration and Home Affairs (DG HOME)

Key points:

Mr. Wojtas said there were various potential threats to health and the level of probability varied greatly. He said that even though CBRN risks were prominent in the news and there had been several well-known cases, CBRN was still considered a low probability threat. Nevertheless, it was evolving.

Mr. Wojtas presented the DG HOME work, including a new action plan for CBRN counterterrorism, refined to include more emphasis on cross-sectoral cooperation and coordination. It had four objectives:

1. Reducing the accessibility of CBRN materials.
2. Ensuring a more robust preparedness for and response to CBRN security incidents.
3. Building stronger internal-external links in CBRN security with key regional and international EU partners.
4. Enhancing participant countries knowledge of CBRN risks.

Panel debate

Speaker: Prof. Ilona Kickbusch, Director of the Public Health Programme and Adjunct Professor at the Graduate Institute of International and Development Studies, Geneva

Panel participants:

Dr. Francesca Viliani, Head of Public Health, International SOS

Prof. David Russell, Head of CRCE-Wales/WHO-Collaborating Centre for Chemical Incidents

Mr. Wiktor Wojtas, Policy Analyst, DG HOME

Dr. Clément Lazarus, Ministère des Solidarités et de la Santé, France

Mr. Gerasimos Gerolymatos, Hellenic Ministry of Health, Greece

Prof. Kickbusch explained that the panel debate would be used to look at new types of threats to health. She asked panel participants what threats to health they considered most critical. Key threats that emerged varied, including for example, climate change, epidemiological risks, AMR/multi-resistant bacteria, threats created through new technologies and finally, the unexpected "threat X" (e.g., ransomware, hybrid threats).

Prof. Kickbusch followed with a question on the importance of working with leaders in other sectors. Panellists emphasised the advantages and recent advances in intersectoral collaboration, but also the complication of working across stakeholders. They concluded there was a need for shared practices and cultures between entities, that would be essential in order to test regularly the robustness of plans and common operating procedures.

Prof. Kickbusch highlighted the relatively recent focus on good risk communication, which had increased with social media, and panellists emphasised the importance and the impact of strengthened communication with the local population in the case of a threat.

Last, Prof. Kickbusch asked panellists to share examples of collaboration across sectors and parting thoughts. Panellists raised important issues on collaboration, such as the need to move to a multi-sectorial focus on prevention, the criticality of collaboration to strengthen readiness to address health risks, and the importance of awareness of a potential bio-terrorist threat. Panellists finally agreed that the EU played a very important role globally on helping identify and address new types of threats.

Intersectorality

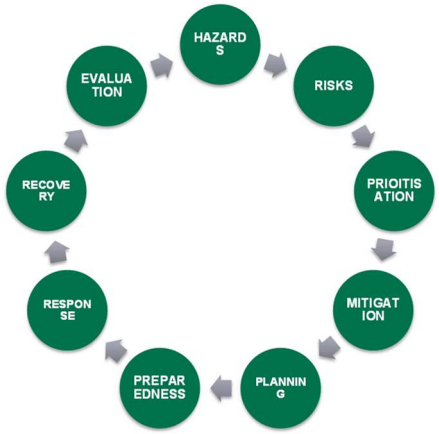
Introduction to intersectorality

Speaker: Professor David Russell, Head of CRCE-Wales/WHO-Collaborating Centre for Chemical Incidents

Prof. Russell emphasised that intersectoral action generally refers to actions affecting health outcomes undertaken by sectors outside the health sector, possibly, but not necessarily, in collaboration with the health sector. He also introduced the disaster management general cycle (**Exhibit 15**)

EXHIBIT 15

1.DISASTER MANAGEMENT CYCLE

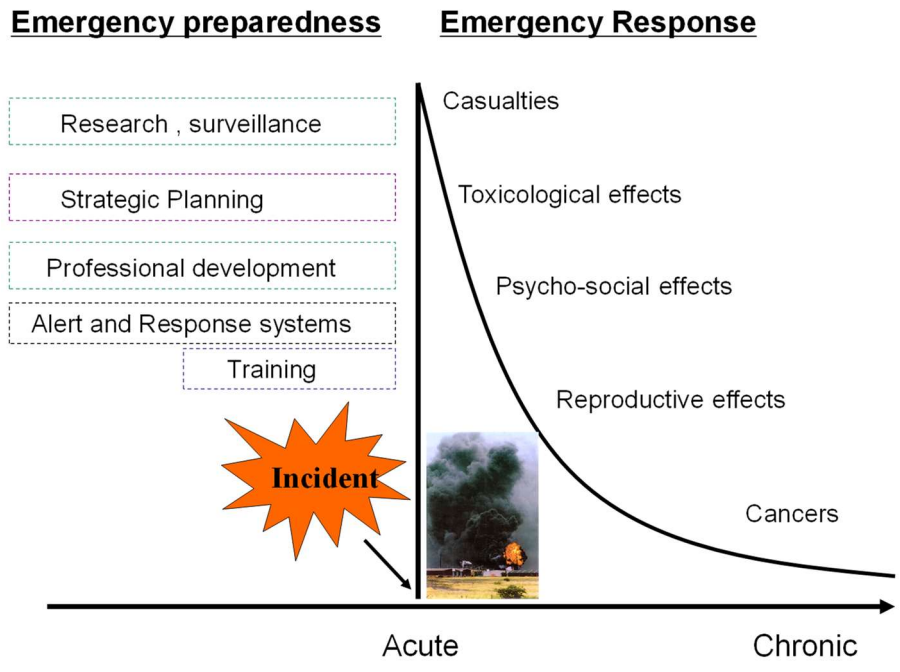


State of Play of Preparedness on Serious Cross-Border Threats, Luxembourg April 2018

Overall, he said that chemical incidents and trends in chemical production indicate that there will be a global increase in production of chemicals over the next 10-15 years and incidents could be much more likely.

Prof. Russell explained that incidents typically started with the source of chemical release transmitted over a pathway (e.g., fire, spillage, leakage, earthquake). Sometimes they started with the receptor – the casualties, the victims, which may at the beginning includethe community, working alongside media, local healthcare providers, food agencies and utilities, to address the incident. The diversity of this group of people demonstrated that intersectorality was key to successfully managing such events. He also described key elements of emergency preparedness versus emergency response (**Exhibit 16)**.

EXHIBIT 16



Prof. Russell mentioned that *disaster management plans* should include some key requirements (e.g., alert mechanisms, scale up triggers, response processes, command and control structures, inventories of capabilities, communications). *Preparedness* should include: training; alerts and detecting; analysing meteorological data; analytical sampling; conducting joint exercises. Countries should include in these efforts intersectoral participants e.g., industry, media, health, emergency services, utilities, etc. He added that *response* was not a uniform process - it could take place immediately, or in the intermediate or longer-term:

- Immediate – 0-2 hours, response of emergency services. Functions are: limit impact, assess & mitigate risks, protect the public, ensure inter-operability, communication, co-operation and collaboration, set up joint response mechanisms.
- Intermediate – refers to period after immediate emergency response at scene and typically addresses community concerns. Chronology commences 2-4 hours following declaration of incident. Functions are: assess risks, limit exposure, intervene.
- Long-term recovery – multifaceted: economic, environmental, ecological, and health-based.

Finally, Prof. Russell mentioned that it is critical to involve and inform the public. The public wants to be included in the response and should be considered as an asset.

Prof. Russell reached the following conclusions:

- Chemical incidents can be extremely complex.
- There is a need to prioritise and identify risks early and pre-plan / prepare.
- Multisectorality is key for preparedness and response.
- The voluntary sector, the public and other stakeholders should be engaged as much as possible.

Speed talk: Bulgaria

Bulgaria representatives provided a speed talk, addressing the difficulty of implementing a plan when faced with human resource shortages.

Speed talk: Portugal

Portugal representatives in their speed talk used the Lisbon May 2018 Eurovision contest as an example of how the country is embracing intersectorality to address potential threats.

The speed talks were followed by breakout discussions on key aspects of intersectorality. In the plenary debrief, the facilitators summarized key points of the discussion:

- It is important to develop a common understanding of the threat and each party's starting point; exercises can support this.
- The response needs to be consistent between different actors (e.g. fire brigade and police force).
- Risk assessments should be iterative (e.g., the first effort should be quick and outputs refined over time).
- Information should be shared, either by creating a knowledge repository or through advisory boards.

Collaboration within the EU and beyond

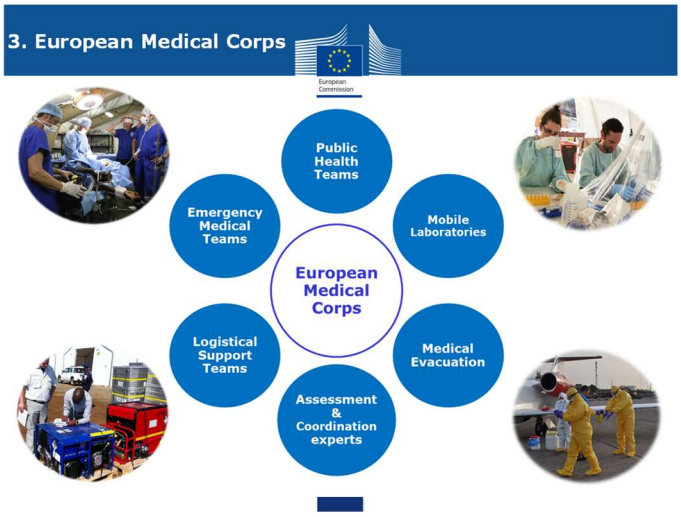
EU action under the Medical Corps and the civil protection mechanism

Speaker: Dr. Evelyn Depoortere, Policy Officer, DG ECHO

Dr. Depoortere gave a talk on EU action under the European Medical Corps (EMC) and the Union Civil Protection Mechanism for disaster response to effect collaboration within the EU and beyond. She pointed out that the EMC had different components including public health, medical evacuation, experts for assessment and coordination, logistical support and mobile labs (**Exhibit 17**). Key objectives are:

- Increased availability of medical and public health teams and equipment.
- Better planning and preparation for response to emergencies with health consequences.
- Ensuring that the European medical assistance can meet the required level of quality.
- Fully leveraging operational synergies by deploying inter-sectoral and complementary teams.

EXHIBIT 17



Dr. Depoortere mentioned the need for civil protection and health to come closer together, in order for the EMC to be fully effective. The main questions/challenges raised by participants during the discussion were:

- Culture differences between the health and civil protection sectors.
- Focus of intervention of the EMC at EU level versus outside the EU.
- The political support needed to maintain response capacities.

Dr. Depoortere also made reference to the WHO, and the importance of closely working together, e.g. with GOARN or the Emergency Medical Teams.

Keynote speech

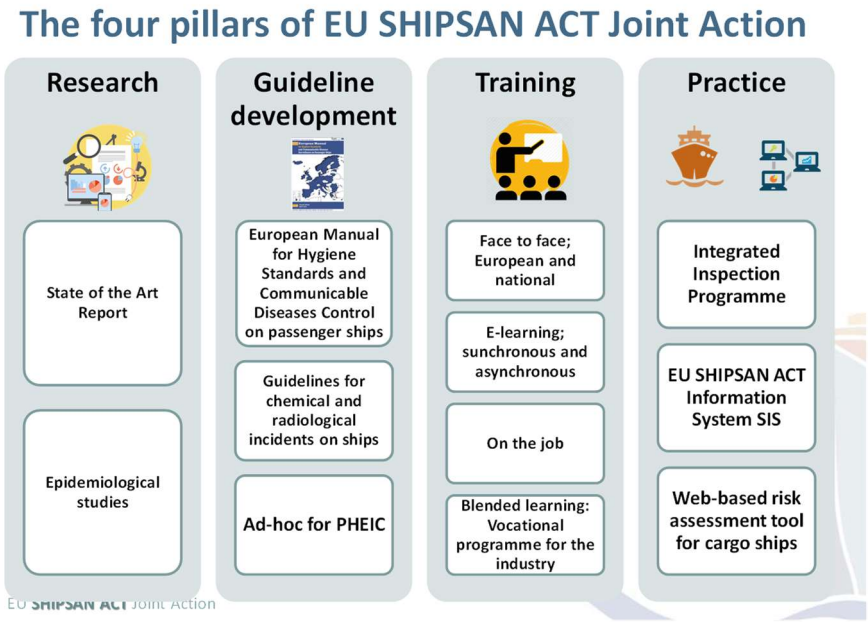
Speaker: Dr. Christos Hadjichristodoulou, Director of the Department of Hygiene and Epidemiology at the Medical Faculty of the University of Thessaly, EU SHIPSAN ACT Joint Action.

Dr. Christos Hadjichristodoulou, EU SHIPSAN ACT Joint Action, gave an overview of the Europe-wide effort to deal with health threats in maritime transport.

The objective of the joint action was to strengthen the development of an approach at EU level for safeguarding the health of travellers and crew of ships and for preventing cross-border spread of diseases. Maritime transport could have significant impact on the EU population's health. When people were on board, it was difficult for a single health system to address any issues – which meant a European-wide response was needed. Dr.

Hadjichristodoulou explained the programme had four pillars: research, training, guideline development, and practice (**Exhibit 18).**

EXHIBIT 17~~18~~



He cited the European manual for hygiene standards and communicable disease surveillance as an example of an achievement of this work. The document was translated into five European languages and into Chinese, as there was official guidance in Taiwan and China. He said that the European Manual consisted of two parts:

- Part A included inspection standards
- Part B described guidelines for the prevention and control of influenza, gastroenteritis and legionellosis specifically.

He then cited other achievements of the programme, such as the integrated inspection programme and the SHIPSAN Information system (SIS), a database to foster collaboration (in pilot phase).

Speed talk: Slovakia

Slovakia representatives shared the example of the Danube Commission to highlight collaboration across countries.

The speed talk was followed by breakout discussions on collaboration within the EU and beyond, followed by a debrief session in plenary.

Debrief

Speaker: Dr. Christos Hadjichristodoulou, Director of the Department of Hygiene and Epidemiology at the Medical Faculty of the University of Thessaly, EU SHIPSAN ACT Joint Action

Dr. Christos Hadjichristodoulou shared closing thoughts on collaboration.

Dr. Hadjichristodoulou said EU-wide collaboration could in itself face challenges. Adding countries from outside the EU could add further complication, as countries have different systems. As a result, the EU has developed unified standards that third countries could also reach. An important lesson was that in the future, EU countries should agree on EU standards before entering a collaboration with countries beyond the EU, or they may risk

accepting different standards than those that they may consider essential. At the same time, EU countries who may have resources and experience, could offer to support other countries if helpful. Dr. Hadjichristodoulou noted that even within the EU there were differences in levels of inspections and often different expectations on cargo and passenger ships.

DAY 3

Objectives for the day

Main challenges/questions raised by participants:

The facilitators summarized the learnings emerging from the previous day, including:

- There are many common challenges among countries.
- Some countries expressed a desire for the Commission to take an active role in giving advice and coordination on issues related to preparedness.
- There is a desire to take part in discussions on the new joint action on preparedness/implementation of the IHR and on laboratories.

The facilitators announced the plan for the day, including the three questions participants would need to reflect on:

- Question 1: What is your summary view on the state of preparedness (for your specific topic, e.g., IHR)?
- Question 2: What are the next steps for collaboration within the EU?
- Question 3: What are the implications for preparedness work for your country?

The facilitators then asked the participants to discuss their group what they took away from Days 1 and 2 and share forward-looking thoughts. Some observations shared by participants included:

- Decision 1082/2013/EU was an effective legal framework in providing support and complementing the implementation of IHR.
- Different countries had created different organizations, but challenges were the same – e.g., effective implementation of the IHR.
- Insufficient human resources and training were two common problems faced by participant countries.
- When talking about BCPs, it was not always clear whether these had to be at country, EU or organisation level. It was also not always clear which actor had the leading role in the management of crises and related events (e.g., whether it was the health, security, transport, or other sectors).

The Role of ECDC in preparedness

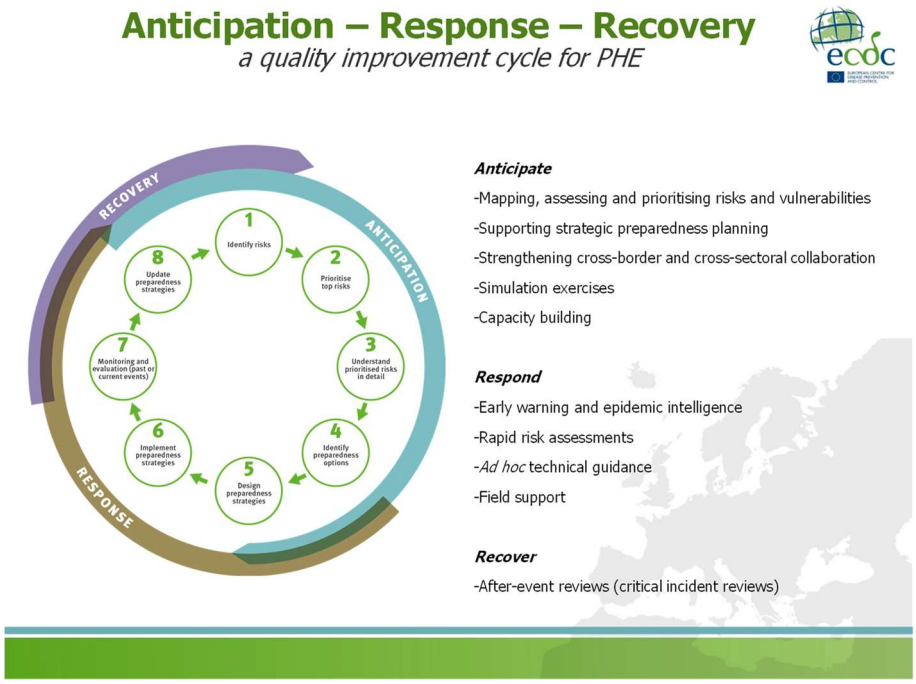
Speaker: Dr. Massimo Ciotti, Head of the Preparedness Section and Deputy Head of the Public Health Capacity and Communication Unit, ECDC

Dr. Massimo Ciotti provided the first topic of the day, focusing on preparedness and how it is addressed by the ECDC.

Dr. Ciotti presented generic and specific preparedness at the ECDC, including:

- Disease-specific
- Hazard-specific, and
- Emergency preparedness

He explained the quality improvement cycle with three phases (**Exhibit 19)**:anticipation, response and recovery.



He then explained that the ECDC Country Preparedness Support strategy develops along three main streams of activities:

- Identification of evidence through case studies.
- Dissemination of good practice.
- Capacity strengthening.

Dr. Ciotti shared the key objectives and outputs of this work:

- Support EU implementation of Decision 1082/2013/EU to enhance preparedness for serious cross-border threats to health.
- Support country-level public health emergency preparedness planning and implementation in the field of communicable diseases.
- Facilitate cross-border and intersectoral collaboration in the field of public health emergency preparedness with relevant EU and international partners.
- Coordinate and steer preparedness activities within ECDC as related to relevant disease programmes and core public health functions.

On risk assessment, he mentioned that some of the tools were being revised and adapted. On conducting training and exercises, he mentioned that the ECDC was moving to a programme approach. In the past 2-3 years, ECDC has developed the tools to support training in specific skills linked to strengthening public health awareness. On evaluation, he mentioned that specific tools had been developed to help conduct reviews in countries and assess their capabilities. He mentioned that they were also developing indicators to help assess capacity.

Dr. Ciotti added there were two core aspects typically when a major event happened: on the one hand, there was evidence-based policy-making in public health institutions, and on the other hand, there was public engagement with civil society. He said they were trying to better understand the interests of different parties and that to achieve success in the short, medium and long-term, they had focused on interactions across three parameters: context, infrastructure and communities. This approach had revealed some interesting practices, which will be integrated in the guidelines. Finally, Dr. Ciotti presented the key principles for the ECDC Preparedness and Response strategy:

- Activities should seek to add value and address gaps that may exist at the EU and Member State level.
- Activities should be complementary to those of the Commission and of individual EU Member States.
- Preparedness and response are core public health functions at ECDC and work in synergy with disease programmes.
- The interoperability of preparedness planning between countries and sectors should be a point of emphasis for preparedness support work.
- Partnership with health and non-health international organisations is critical to ensure that preparedness plans address cross-sectoral dimensions.

Strengthening microbiological capacities in the EU

Speaker: Prof. Marc Struelens, Chief Microbiologist and Head of Microbiology Coordination Section, ECDC

Prof. Marc Struelens presented on strengthening microbiological laboratory capacities. He said a positive development was that the capacity of laboratories in the EU is continuously improving; a more alarming development is that new threats to health, such as AMR, go beyond traditional communicable diseases and require reinforced efforts.

Prof. Struelens explained that the EU is co-funding EMERGE (EMERGE Joint Action European Network of BSL-4 facilities[9]), with 39 partners, 22 EU Member States and three EEA/EFTA States, and with core objectives to:

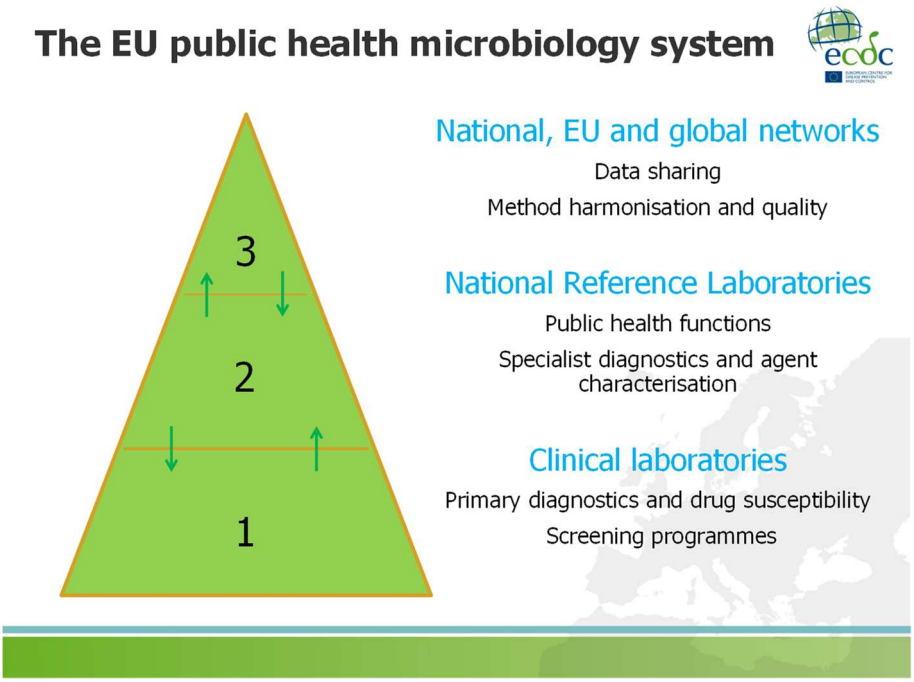
- Ensure an efficient response to serious cross-border events caused by highly dangerous emergent pathogens.
- Contribute to a coordinated and effective response to such outbreaks by linking laboratory networks and institutions.
- Perform external quality assurance exercises and give appropriate training to ensure laboratory responsiveness, diagnostics and laboratory bio-risk management during outbreaks.

He said that there was already good progress in capacity building (protocols, guidance and diagnostics). In terms of strategy he said the goal of the ECDC Public Health Microbiology (PHM) programme (which was agreed upon with Member States) was to strengthen the capacity of the EU PHM system to provide timely and reliable information for infectious disease prevention and control, at the Member State and EU levels.

He gave an overview of the ECDC-supported laboratory network activities. He explained that approximately 50 infectious diseases were covered in 15 EU-wide networks, coordinated through the ECDC. The main microbiology activities they coordinate are: technical laboratory guidance, technical capacity mapping, laboratory training courses, external quality assessment (EQA), cross-border testing service and outbreak investigation support. He then gave an overview of the EU PHM system, which includes clinical laboratories (the foundation of the system), national reference laboratories, and national, EU, and global networks (**Exhibit 20)**.

[9] See: https://www.emerge.rki.eu/Emerge/EN/Home/Homepage_node.html

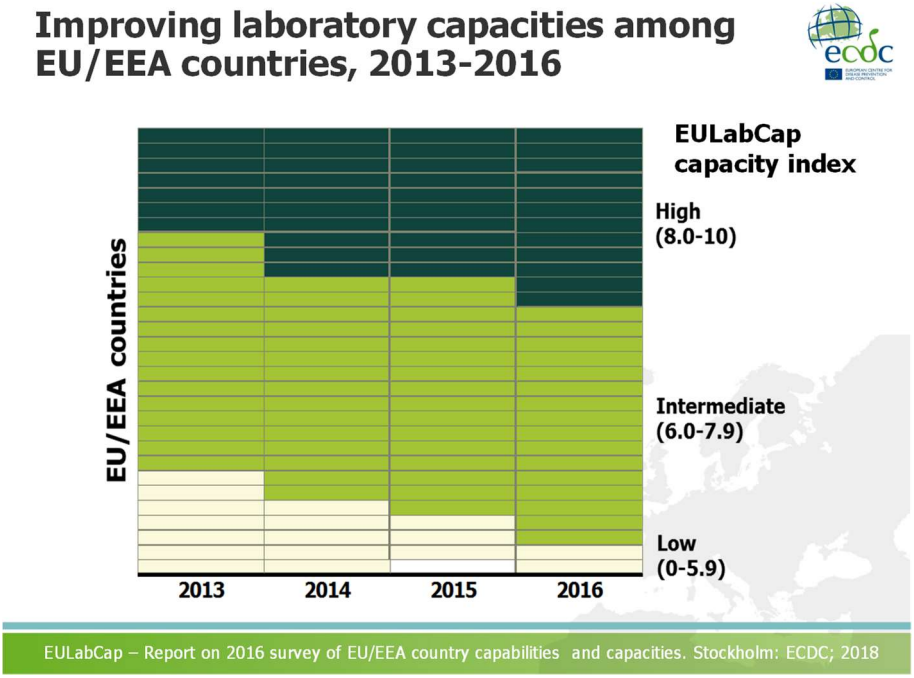
EXHIBIT 20



Prof. Struelens then presented the EULabCap Capacity Index which monitors laboratory capacity for public health at national and EU levels (**Exhibit 21)**. He explained that it uses 60 laboratory indicators (scoring low/medium/high capacity) to give confidential feedback on country profiles (e.g., through ECDC online reports and EU maps of country capacity scores).

He noted that in the latest survey, most Member States demonstrated high levels of system capability/capacity (scoring above 8 on a scale of 10). He added there has been continuous improvement since 2013.

EXHIBIT 21



Prof. Struelens said the Ebola case showed that EU countries could deal with emergencies effectively, thanks to a system of rapid and accurate diagnostics. He said it was not yet the case with AMR. He also said there was more work to do in the health sector, which needed better integration and more clinical laboratories.

Clarification on the planned Joint Action on Preparedness

Speaker: Dr. Agnes Molnar, Deputy Head of Unit on Crisis Management and Preparedness in Health, DG SANTE

Dr. Molnar reiterated the goals of the Joint Action on Preparedness and IHR implementation, including laboratory strengthening, which is currently being planned and involves 30 EU/EEA and other countries, aiming:

1. **to improve preparedness and response planning for serious cross-border threats to health and the implementation of IHR** in EU Member States, EEA and neighbouring countries, in view of the EU and the global emergency preparedness context
2. **to improve the core functions of public health laboratories,** by the coordination, in collaboration with ECDC, of a reference network of European microbiology laboratories specialised in **highly pathogenic or newly emerging pathogens to improve laboratory capacity.**

Dr. Molnar also commented on the question related to structures and mechanisms in place to respond to chemical threats, based on the findings of previous exercises with Member States. Dr. Molnar referred to the EWRS for notifying alerts on cross-border chemical threats, RASCHEM, a network of poison centres across Europe, and the ongoing re-engineering of the EWRS. She highlighted the role of the Scientific Committees (SCHEER) in providing rapid risk assessments in case of chemical threats, and the development of SOPs. Trainings are continuously organised for experts. These procedures were tested also during the 2017 EDREX exercise organized by DG ECHO, involving other Commission services, EU agencies and the HSC responsible for response coordination.

Summary statements by participant countries and recommendations

Participants discussed the most significant gaps they saw in preparedness, based on the three days of discussions, particularly highlighting the **need for more training and human resources, strengthening intersectorality and ensuring more support is available within each country**. They then each shared their perspectives on next steps for their state and for collaboration across participant countries. The following **recommendations** emerged from the discussion among participant countries:

- **IHR core capacities:** there should be more support, either at the level of individual countries or of groups of countries/regions with common challenges.
- **BCPs:** there should be work at country level to ensure all conditions for success are in place (e.g., involving relevant actors from local stakeholders, public health, broader health services, social services, security mechanisms, environment authorities et al.). Participants suggested there should be more training, offering courses in business continuity planning and specifically highlighting procedures for resolving chemical accidents. They also suggested strengthening testing arrangements using various scenarios in terms of magnitude and type of event and affected institutions, and putting in place real-time testing mechanisms.
- **Intersectorality:** Future work at country level should focus on strengthening work across sectors and establishing mechanisms for cooperation in governance, sharing of best practices, training, testing and information sharing, as well as on risk communications (including leveraging new

technologies to mobilise grass-roots resources). Future work should also focus on ensuring that there is stronger collaboration between the public and private sector organisations. Also, participants suggested organising a conference to discuss critical sectors and evidence-based best practice, and share experiences every two to three years. Finally, participants suggested broadening involvement through shared training and preparedness exercises.

- **Collaboration within the EU and beyond:** further work should be undertaken to provide a detailed map of 'pain points' for collaboration within the EU and beyond, and create an action plan and roadmap for further collaboration of participant countries in this area.
- **Human resources:** Countries should precisely identify available resources, define how these are mapped with respect to other sectors or services, and keep this mapping updated. This can then be used as a fact-base for resourcing discussions within and across countries.

Conclusions and next steps

Closing themes from the entire exercise and the 25th - 27th April workshop, summarised by **Velina Pendolovska, Policy Officer, Unit on Crisis Management and Preparedness in Health, DG SANTE,** included:

- **Preparedness is a vast topic** and it is not possible to cover all aspects in a single workshop, especially given the diversity of participant countries. Different countries have different priorities and areas of relative strength.
- **Common themes across countries** included:
    - **IHR core capacities:** It was broadly noted that more collaboration with the WHO is required in the implementation phase.
    - **BCPs:** Political support and an appropriate legal base are important for success, as are training, testing and risk communications.
    - **Intersectorality:** Most participant countries seem comfortable with biological threats to health. However, chemical and environmental threats appeared more difficult to address.
    - **Collaboration within the EU and beyond.** Similar themes as in the intersectorality discussion were also raised in this area. For example, collaboration with civil protection authorities does not seem to be a challenge, but other intersections may be more complicated, including, for example, with the transport and energy sectors. Different collaboration challenges exist at different levels, i.e., local, regional and national.
    - **Human resources:** The lack of human resources was cited as a critical factor.

Ms. Pendolovska reiterated that the objective of the workshop was to identify gaps and take stock of the state of preparedness, in support of discussions at the Health Security Committee.

HOW TO OBTAIN EU PUBLICATIONS

Free publications:

- one copy:
  via EU Bookshop (http://bookshop.europa.eu);
- more than one copy or posters/maps:
  from the European Union's representations (http://ec.europa.eu/represent_en.htm);
  from the delegations in non-EU countries (http://eeas.europa.eu/delegations/index_en.htm);
  by contacting the Europe Direct service (http://europa.eu/europedirect/index_en.htm) or calling 00 800 6 7 8 9 10 11 (freephone number from anywhere in the EU) (*).

  (*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

Priced publications:

- via EU Bookshop (http://bookshop.europa.eu).

LEGAL NOTICE

This document has been prepared for the European Commission, however it reflects the views only of the authors, and the Commisison cannot be held responsible for any use which may be made of the information contained therein

More information on the European Union is available on the internet (http://www.europa.eu)

Luxembourg Publications Office of the European Union, 2018

© European Union, 2018

All pictures were taken during the event: for any use of the picture, permission must be sought directly from the copyright holder (DG SANTE, European Commission)

EB-04-18-606-EN-N

Publications Office

doi: 10.2818/367585