



Rijksinstituut voor Volksgezondheid
en Milieu
*Ministerie van Volksgezondheid,
Welzijn en Sport*



(Pandemic) Preparedness from
an international perspective:

*Prepare for the worst, hope for
the best*

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Content:

Preparedness: Principles

WHO - IHR requirements

Lessons learnt COVID-19: new insights preparedness

Latest developments: IHR amendments and Pandemic Treaty (introduction of prevention)



Principles Preparedness:

- > Two types of **high impact threats**:
 - **Large outbreaks/** pandemics: high number of cases (CFR might be low) – large scale measures
 - **High Consequence Infectious Disease (HCID)** – few cases, CFR high. Specific procedures. Centralized care

- > Preparedness - **structure**:
 - 1 system expanding: events - pandemics
 - Generic approach: sometimes disease specific guidelines (fe HPAI H5N1)



Fase 0
Geen uitbraken

Fase 0: geen uitbraak Groep-A-ziekte



Fase 1
Uitbraak elders op de wereld
Kleine kans op onverwachte patiënten

Fase 1: uitbraak Groep-A-ziekte ergens op de wereld, maar kleine kans



Fase 2
Realistische kans op onverwachte patiënten en/of vermeende onrust

Fase 2: uitbraak Groep-A-ziekte ergens op de wereld, met reële kans c



Fase 3
Eén of meerdere (potentiële) patiënt(en) opgenomen

Fase 3: er zijn patiënten met verdenking of bevestiging van een Groep opgenomen





Preparedness: Public Health Emergency Preparedness Cycle

- > 7 'bricks' or 'domains'
- > Plan-Do-Check-Act:
continuous improvement
- > Per domain:
 - Capacities (means)
 - Competencies (of persons)
 - Capabilities of the system



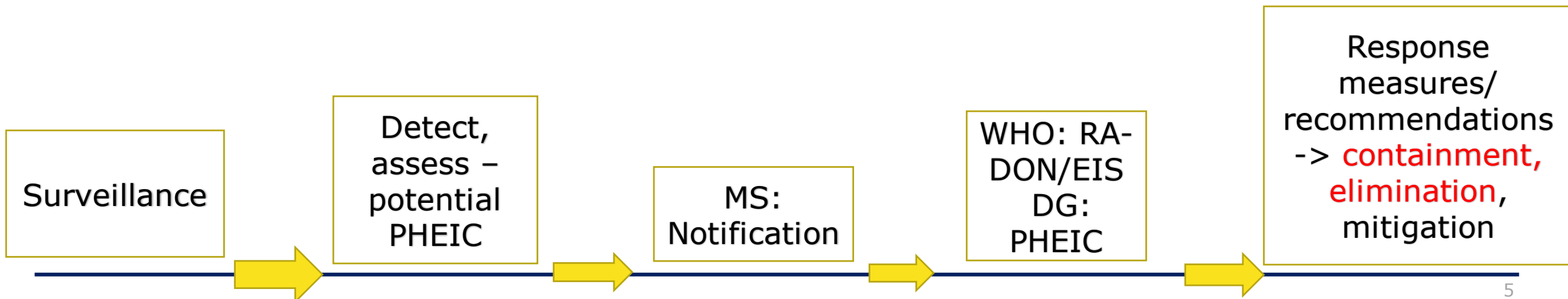
<https://ecdc.europa.eu/sites/portal/files/documents/Technical-Doc-HEPSA-tool.pdf>
Belfroid et al, BMC Public Health 2020 ([Towards defining core principles of public health emergency preparedness: scoping review and Delphi consultation among European Union country experts - PubMed \(nih.gov\)](#))



WHO International Health Regulations



- > In the past: quarantinable diseases
- > **Scope ('05): to prevent, protect against, control and provide a public health response to the international spread of disease** in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade.
- > **'All hazard approach'**
- > Procedures and arrangements for the chain surveillance – response





WHO International Health Regulation (IHR)



- > Requirements for core capacities on national, regional and local level.
- > Intersectoral cooperation
- > **Annual Reporting/SPAR:** ` State Party Annual Report' on implementation IHR requirements
- > **15 capacities**, scoring level of implementation

ANNEX 1

A. CORE CAPACITY REQUIREMENTS FOR SURVEILLANCE AND RESPONSE

1. States Parties shall utilize existing national structures and resources to meet their core capacity requirements under these Regulations, including with regard to:
 - (a) their surveillance, reporting, notification, verification, response and collaboration activities; and
 - (b) their activities concerning designated airports, ports and ground crossings.

B. CORE CAPACITY REQUIREMENTS FOR DESIGNATED AIRPORTS, PORTS AND GROUND CROSSINGS



Capacity 12: Zoonotic Diseases

Mechanisms and documented procedures among all relevant sectors,⁹³ particularly those responsible for human, animal (livestock, pets, wild animals)⁹⁴ and environmental health are in place to ensure operational coordination in preparedness, planning, surveillance and response to zoonotic diseases and other health events existing or emerging at the human–animal–environment interface.

Indicators

Level	C12.1. One Health ⁹³ collaborative efforts across sectors on activities to address zoonoses
Level 1	The animal, human, and environment health sectors work together on zoonoses on an ad hoc basis
Level 2	The animal, human and environment health sectors have jointly mapped existing and areas of collaboration and agreed on prioritized zoonoses for coordinated prevention and control activities
Level 3	The animal, human and environment health sectors collaborate regularly and coordinate their activities ⁹⁴ at national level to prevent, detect assess/investigate and respond to one or more prioritized zoonoses(s). Their ability to detect new or emerging zoonotic diseases has been demonstrated in some occasions
Level 4	The animal, human and environment health sectors collaborate regularly and coordinate their activities at national and intermediate level to prevent, detect assess/investigate and to respond to prioritized zoonoses, and have appropriate procedures to jointly react in case of emergency, including in case of new or emerging zoonotic diseases
Level 5	One Health multisectoral capacities to prevent, detect, assess/investigate and respond to zoonotic events (endemic and emerging) are exercised (as applicable, reviewed, evaluated, updated on a regular basis and improvements are implemented accordingly)



C15 -SPAR '21-'22 -'23 results global level

All capacities average

C1 Policy, Legal and normative Instruments to implement IHR

C2 IHR Coordination, National IHR Focal Point functions and advocacy

C3 Financing

C4 Laboratory

C5 Surveillance

C6 Human resources

C7 Health emergency management

C8 Health services provision

C9 Infection prevention and control (IPC)

C10 Risk communication and community engagement (RCCE)

C11 Points of entry (PoEs) and border health

C12 Zoonotic diseases

C13 Food safety

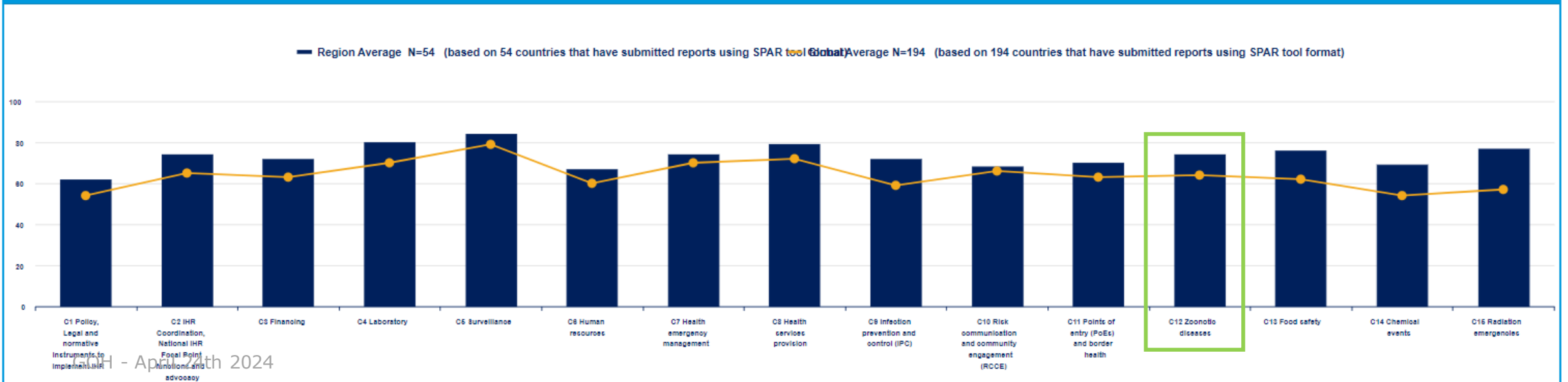
C14 Chemical events

C15 Radiation emergencies

EURO 2023



IHR Score per capacity EURO 2023 (Updated on 18-03-2024)



SPAR 2023 Netherlands



IHR Score per capacity

EURO

Netherlands (Ki...

2023



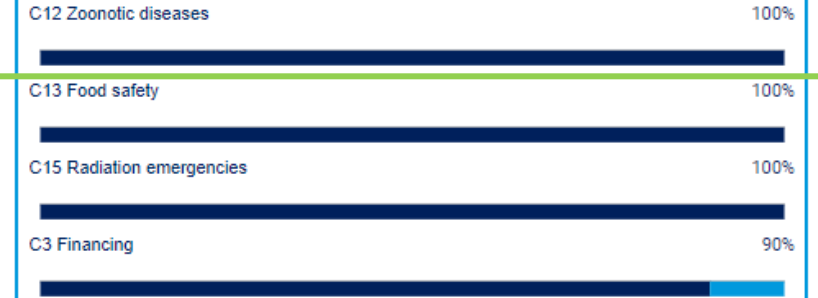
Main challenges

Based on the analysis of the latest annual reporting data, the top challenges are:



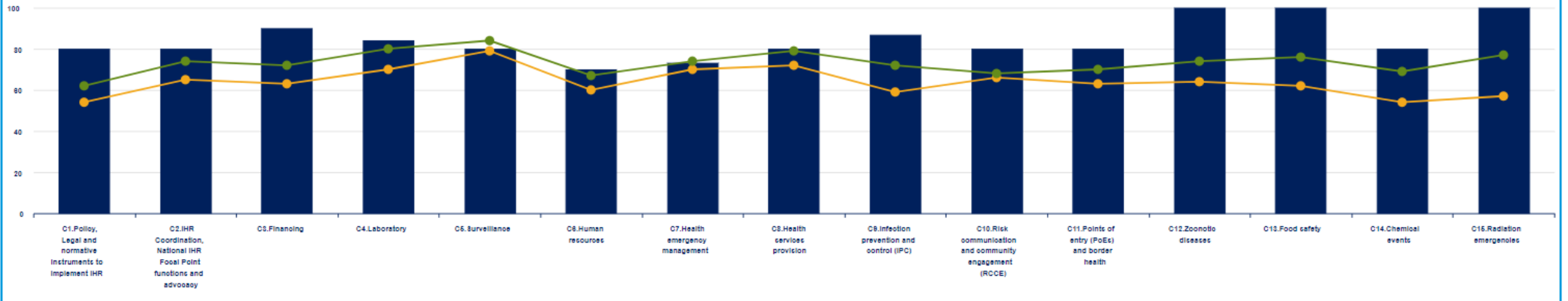
Main strengths

Based on the analysis of the latest annual reporting data, the top strengths are:



IHR Score per capacity EURO Netherlands (Kingdom of the) 2023 (Updated on 18-03-2024)

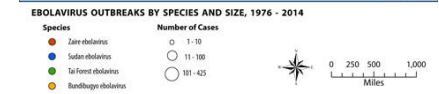
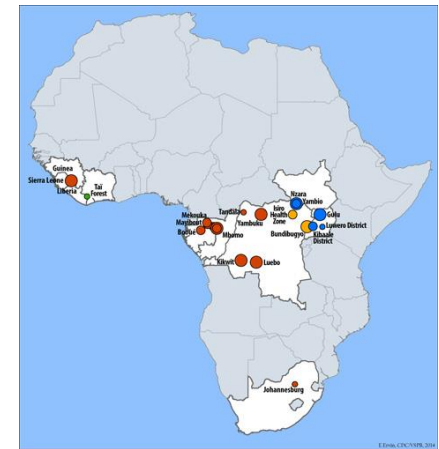
Country Average Global Average N=194 (based on 194 countries that have submitted reports using SPAR tool format) Regional Average N=54 (based on 54 countries that have submitted reports using SPAR tool format)



Ebola outbreak '14- '16



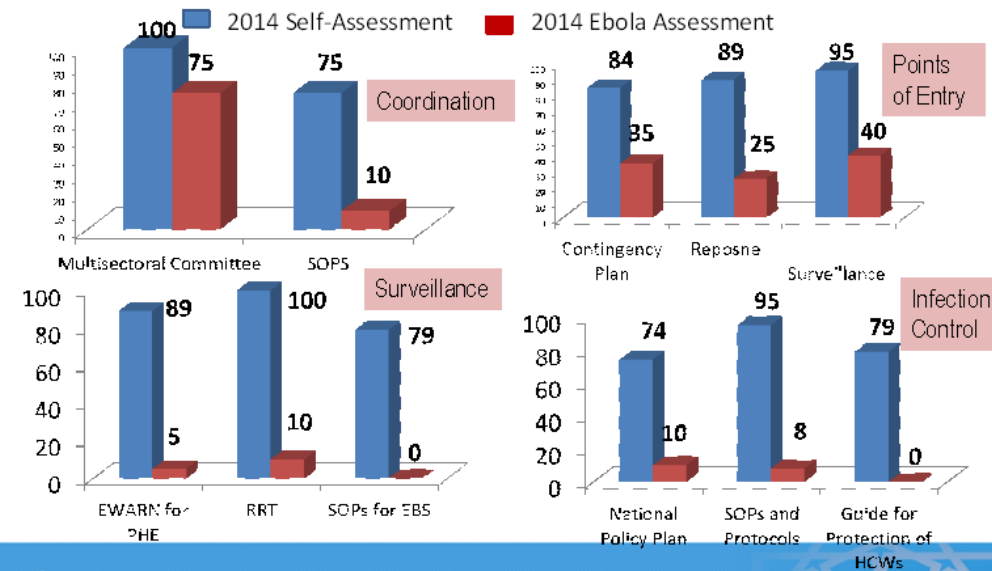
- > Unprecedented outbreak:
 - 28 616 confirmed, potential and possible cases, 11 310 deaths
 - Guinea, Liberia and Sierra Leone
- > Inconsistent self-assessment and external ebola assessment



- > -> WHO Monitoring & Evaluation framework:
 - SPAR, **Simulation exercises, After Action Reviews (-> intra action), Joint External Evaluation (JEE) -> National Action Plan (NAPHS)**

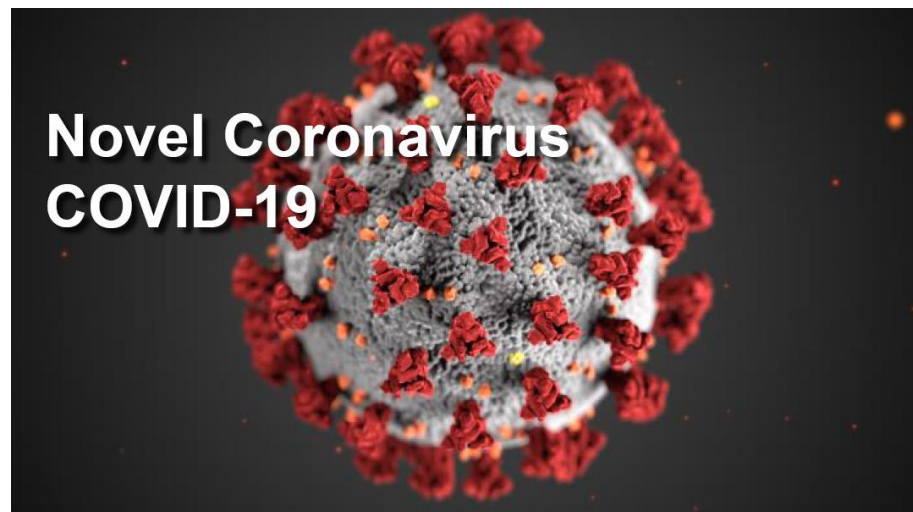
> **Prepared for the worst?**

2014 Self-Assessment and 2014 Ebola Assessment: Inconsistent Results of availability of Capacity Requirements (%)





COVID-19





COVID-19 IHR Review – WHA 2021

SUMMARY OF RECOMMENDATIONS

Preparedness	Alert	Response	Governance
<ul style="list-style-type: none"> NFPs legislation Strengthen NFPs capacities Strengthen collaboration with other partners in support of NFPs and IHR implementation SPs to integrate core capacities into health systems and EPHF Build genomic sequencing capacities WHO to review tools for assessing capacities Legal preparedness – review and update emergency legislation WHO to provide tools to support use of legislation for IHR implementation 	<ul style="list-style-type: none"> Mechanism for SPs sharing real-time emergency information for risk assessment WARN – World Alert and Response Notice – with actions for response WHO standard forms for requesting information and verification of events under relevant articles of the IHR. WHO to share unverified information if no response verification requests WHO to make available States Parties through the information and technical documentation it provides to the Emergency Committee; standard template for Emergency Committee statements Address the risk of zoonotic diseases 	<ul style="list-style-type: none"> SPs to mandate WHO to proactively support individual States Parties when information about high-risk events becomes known to the Organization. WHO to strengthen operations and networks, and develop clear procedures and mechanisms for intersectoral coordination and collaboration for risk assessment, outbreak alert and response 	<ul style="list-style-type: none"> Framework Convention for pandemic preparedness and response Establish national competent authority for overall IHR implementation Finance IHR implementation – at national, sub-national level, and of WHO Universal Periodic review mechanism for assess, report on

IHR REVIEW COMMITTEE ON THE FUNCTIONING OF THE IHR DURING THE COVID-19 RESPONSE

UPDATES ON THE FINAL REPORT

Prof Lothar Wieler, Chair of the IHR Review Committee on COVID-19 response
Member States Information Session, 6 May 2021

(4) As part of a One Health approach to preparedness, alert, response and research to emerging zoonotic diseases, WHO should work closely with States Parties, in collaboration with the World Organisation for Animal Health, the Food and Agriculture Organization of the United Nations and the United Nations Environment Programme, as well as other networks and relevant stakeholders and partners, to address the risks of emergence and transmission of zoonotic diseases, and provide a coordinated, rapid response and technical assistance as early as possible for acute events.



COVID-19: demonstrated importance of..

- > Governance (decision making/ trust)
- > **Early detection - respons**
- > Research readinss
- > Operational readiness / **surge capacity**
 - > Extra phase in the prep cycle
- > Behavioral sciences
- > Countering mis- and disinformation
- > Whole-of-governance, whole-of-society approach
- > Early detection: fe HPAI H5N1 passive -> active monitoring



IHR amendments – in negotiation / WGIHR9

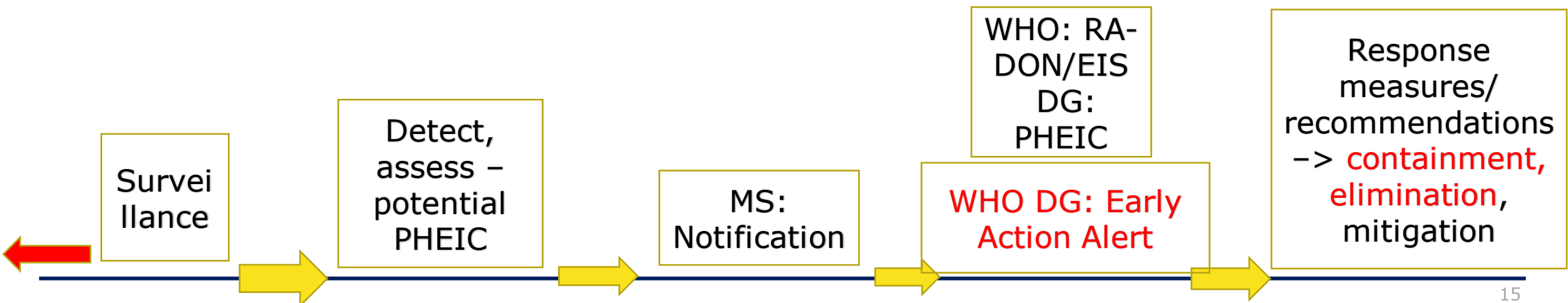


CORE CAPACITIES

1. States Parties shall utilize existing national structures and resources to meet their core capacities requirements under these Regulations, including with regard to:

- (a) their surveillance, reporting, notification, verification, **preparedness**, response and collaboration activities; and
- (b) their activities concerning designated airports, ports and ground crossings.

- > Introduction ` **Early Action Alert** `
- > Specifications Core Capacities
 - Including communication



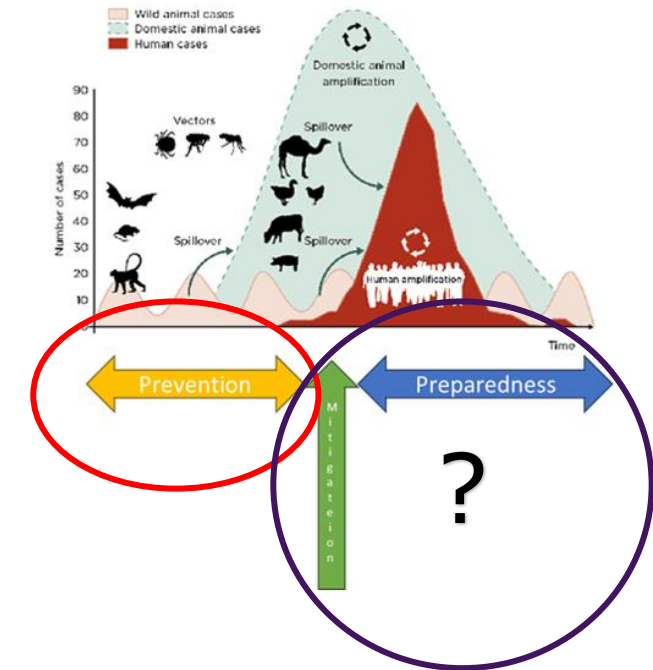
pandemic treaty - under negotiation



Intergovernmental Negotiating Body / INB process



- > Art 4-5: Pandemic **prevention** and public health surveillance, One Health
- > Art 6. Preparedness, readiness and health system resilience
- > Art 12: access & benefit sharing: **PABS system**
- > Art 19: international cooperation and support for implementation (**commitment**)



<https://apps.who.int/gb/inb/index.html>



EU Serious Cross Border Threats to Health (SCBTH)

1. In order to address serious cross-border threats to health and the consequences thereof, this Regulation lays down rules on:

(a) the Health Security Committee (HSC);

(b) prevention, preparedness and response planning, including;

- i) preparedness plans at Union and national levels; and
- ii) reporting and assessing preparedness at national level;

(c) joint procurement of medical countermeasures;

(d) emergency research and innovation;

(e) epidemiological surveillance and monitoring;

(f) the network for epidemiological surveillance;

(g) the Early Warning and Response System (EWRS);

(h) risk assessment;

(i) coordination of response; and

(j) recognition of a public health emergency at Union level.

3. The Union prevention, preparedness and response plan shall, in particular, include provisions on joint arrangements for governance, capacities and resources for:

- (f) the health preparedness and response and multi-sectoral collaboration, such as identifying risk factors for disease transmission and the associated disease burden, including social, economic and environmental determinants, following the One Health approach for zoonotic, food and waterborne diseases and relevant other diseases and related special health issues;

GUP - April 24th 2024



– Stronger coordination
Prevention, Preparedness and
Response on EU level (**HSC**)

– **EU and national planning
PPR** (capacity assessments,
country assessment)

- ` article 7' questionnaire
- ` article 8' assessment
(lead by ECDC)

Resumee



- > **Preparedness requires capacities**
 - regularly exercised, evaluated, and lessons learnt incorporated (PDCA).
 - generic system (zoonoses, VPD, ...)
- > **International requirements** for capacities in the IHR
 - Monitoring (SPAR) shows weak points: policy/legislation, HR
- > **COVID-19: preparedness system needs strengthening:**
 - On country level: governance, legislation, HR, **research/operational readiness (containment, elimination!)**
 - On international level: sharing mol seq analysis (PABS system), **detection - containment**
- > **Stronger international governance** regarding monitoring preparedness:
 - WHO: IHR amendments, **Pandemic Treaty (prevention)**, UHPR
 - EU SCBTH, including monitoring preparedness, country assessments
- > **EARLY DETECTION – RESPOND**
- > **CAPACITIES** .Overkill? Preparedness needs to be improved. International rules keep the pressure for preparedness – use it. All countries need to be prepared...



Thank you



- > With the support of: Carolina dos Santos Ribeiro - RIVM

