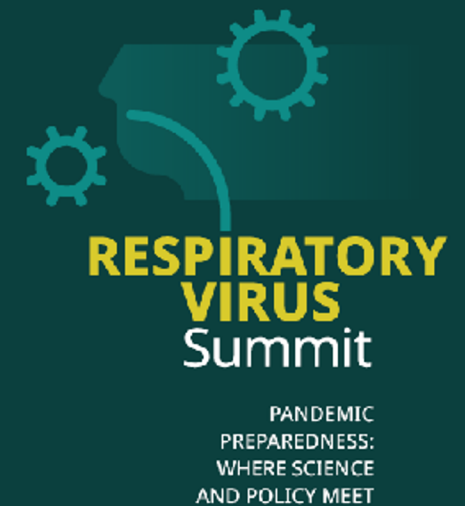


# Making the International Health Regulations work?

Prof. David Heymann, *Chatham House, United Kingdom*



---

# **International Health Regulations: making them work better**

# Infectious disease concerns over the centuries

**A general Bill for this present year, ending the 19 of December 1665, according to the Report made to the KING'S most Excellent Majesty, By the Company of Parish Clerks of London, &c.**

*The Diseases and Casualties this year.*

Abortive and Stillborne—517 Executed—21 Plague—30  
 Aged—1545 Flux and Small Pox—685 Plague—68528

## DEATHS OF MALES and FEMALES from SMALL-POX.

Months Old.	Died.	Years Old.
0	202	0
1	181	1
2	162	2
3	456	3
6	646	4
9	588	5

**CHOLERA**

**DUDLEY BOARD OF HEALTH**

**Church-yard**

Being so full, **CHOLERA** will after **SUNDAY** of the Burial Ground **St. Edmund's**, in

All Persons who die be buried in the Church

**BOARD OF HEALTH, DUDLEY**

**YELLOW FEVER,**

CONTAINING A Synopsis of its Causes, Nature, Symptoms, Treatment, Precautions to be Used to Prevent its Spread

AND Being Indigenous to the Tropical Atlantic, and Defined as a Nautical Disease.

BY **REV. E. S. TYNER,** OF FLAY CITY, FLA. FORMERLY OF THE FLORIDA CONFERENCE.

PRICE, 75 CTS.

JACKSONVILLE, FLA. Published by [illegible]

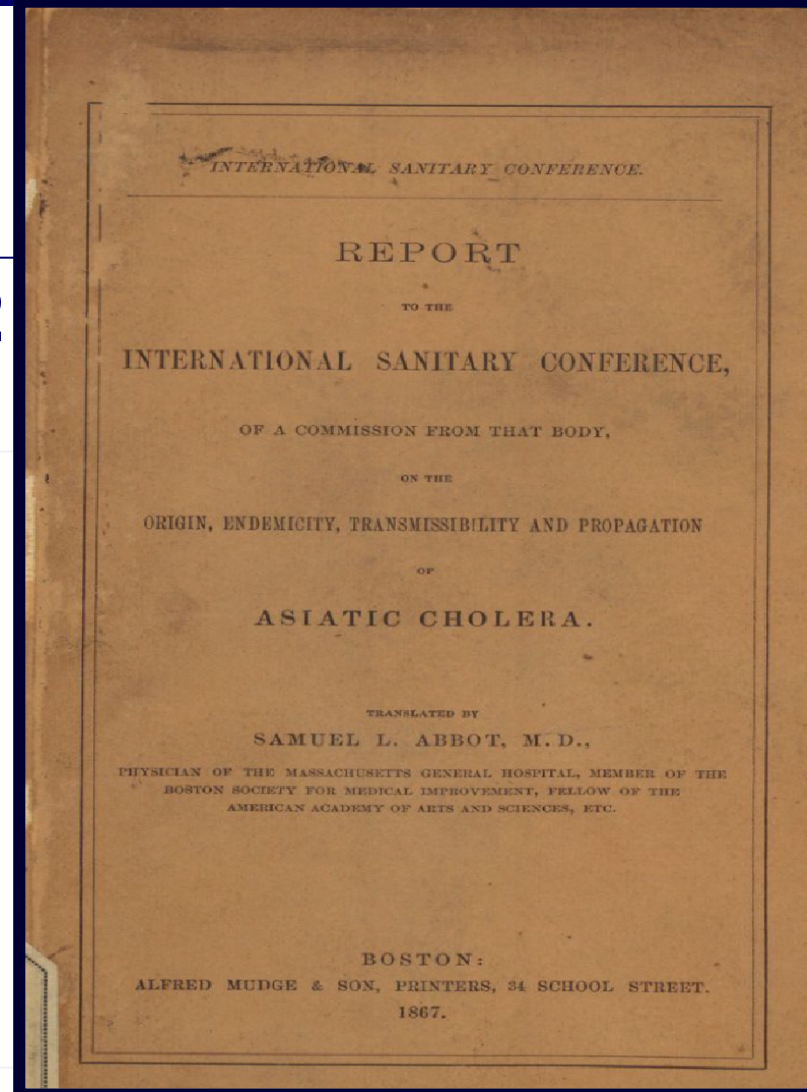
# Concern about public health security: plague, cholera, yellow fever and smallpox

1374

Ship Quarantine for  
plague only

1851 - 1902

International  
Sanitary Conferences



# **Concern about public health security: plague, cholera, yellow fever and smallpox**

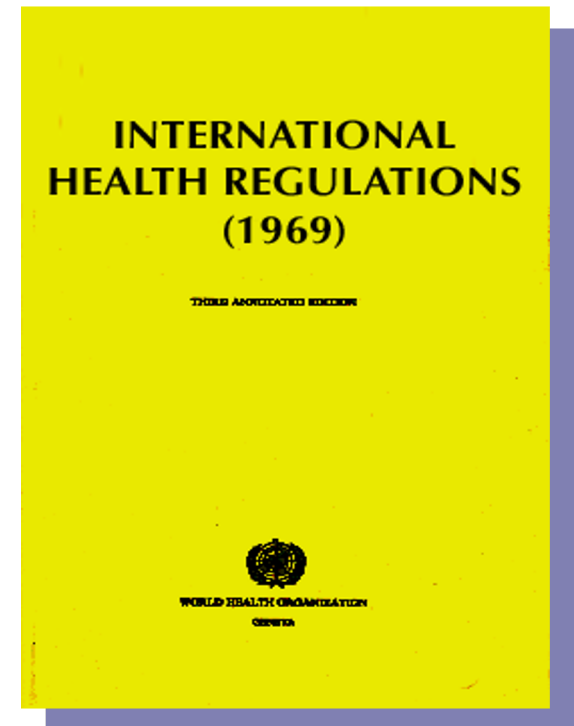
---

<b>1374</b>	<b>Venice</b>	<b>Ship Quarantine for Plague only</b>
<b>1851 - 1902</b>	<b>Europe/Americas</b>	<b>10 International Sanitary Conferences</b>
<b>1920</b>	<b>Geneva</b>	<b>League of Nations Health Organization</b>
<b>1951</b>	<b>Geneva</b>	<b>International Sanitary Regulations</b>
<b>1969 and 2005</b>	<b>Geneva</b>	<b>International Health Regulations</b>

# **International Health Regulations: objective**

---

**“Maximum security against the international spread of infectious diseases with minimal interruption of travel and trade”**



# International Health Regulations 1969: requirements

---

- Notification to WHO: cholera, plague, yellow fever or smallpox – reports only accepted from countries where event is occurring
- Health Measures: describe maximum measures that a country may require to protect against cholera, plague, smallpox and yellow fever (e.g. yellow fever vaccination card)
- Health Organization at borders: ports, airports and frontier posts adequately equipped to prevent vector proliferation



# Application of International Health Regulations: reporting/prevention

2002, 77, 405-416

## Weekly epidemiological record

## Relevé épidémiologique

29 NOVEMBER 2002, 77th YEAR / 29 NOVEMBRE 2002  
 No. 48 2002, 77, 405-416  
<http://www.who.int/wer>

---

**INTERNATIONAL HEALTH REGULATIONS / RÉGLEMENTATIONS INTERNATIONALES**

**Notifications of diseases received from 22 to 28 November 2002 / Notifications de maladies reçues du 22 au 28 novembre 2002**

Disease / Maladie	Cases / Deaths / Cas / Décès	Country / Pays
<b>Yellow Fever / Fievre Jaune</b>		
Africa / Afrique		
Democratic Republic of the Congo / République démocratique du Congo	1.1-29.IX 3 744	Somalia/Somalie
		Uganda/Ouganda

WWW access - <http://www.who.int/wer>  
 E-mail - send message [subscribe\\_wer-reh](mailto:subscribe_wer-reh) to [majordomo@who.int](mailto:majordomo@who.int)  
 Fax: (+41-0)22 791 48 21/791 42 85  
 Contact: [wantze@who.int](mailto:wantze@who.int)

416

**INTERNATIONAL CERTIFICATE OF VACCINATION**  
 AS APPROVED BY THE WORLD HEALTH ORGANIZATION

**CERTIFICAT INTERNATIONAL DE VACCINATION**  
 APPROUVÉ PAR L'ORGANISATION MONDIALE DE LA SANTÉ

TRAVELER'S NAME—NOM DU VOYAGEUR \_\_\_\_\_

ADDRESS—ADRESSE (Number—Numéro) (Street—Rue) \_\_\_\_\_

(City—Ville) \_\_\_\_\_

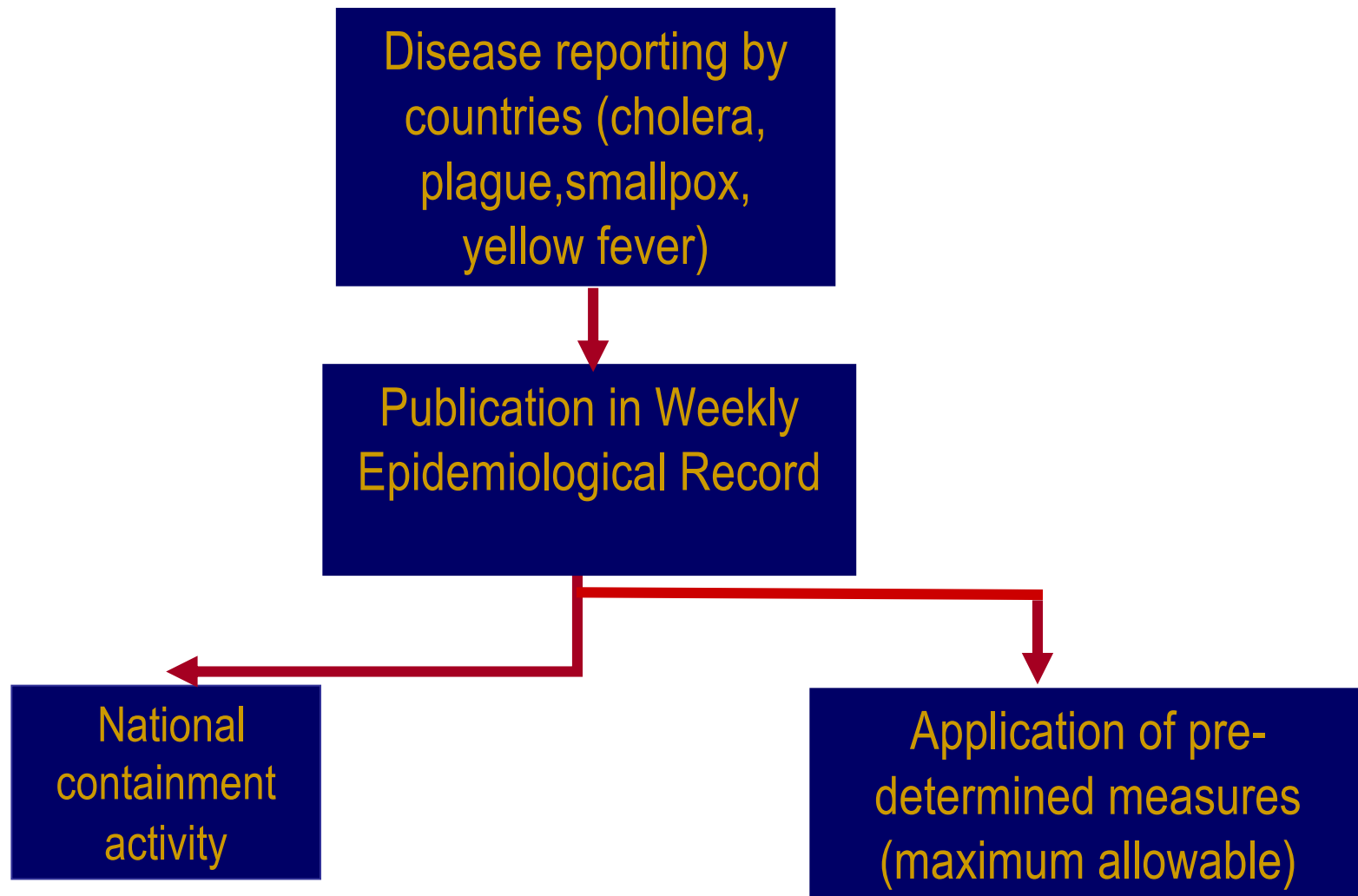
(County—Département) \_\_\_\_\_

(State—État) \_\_\_\_\_



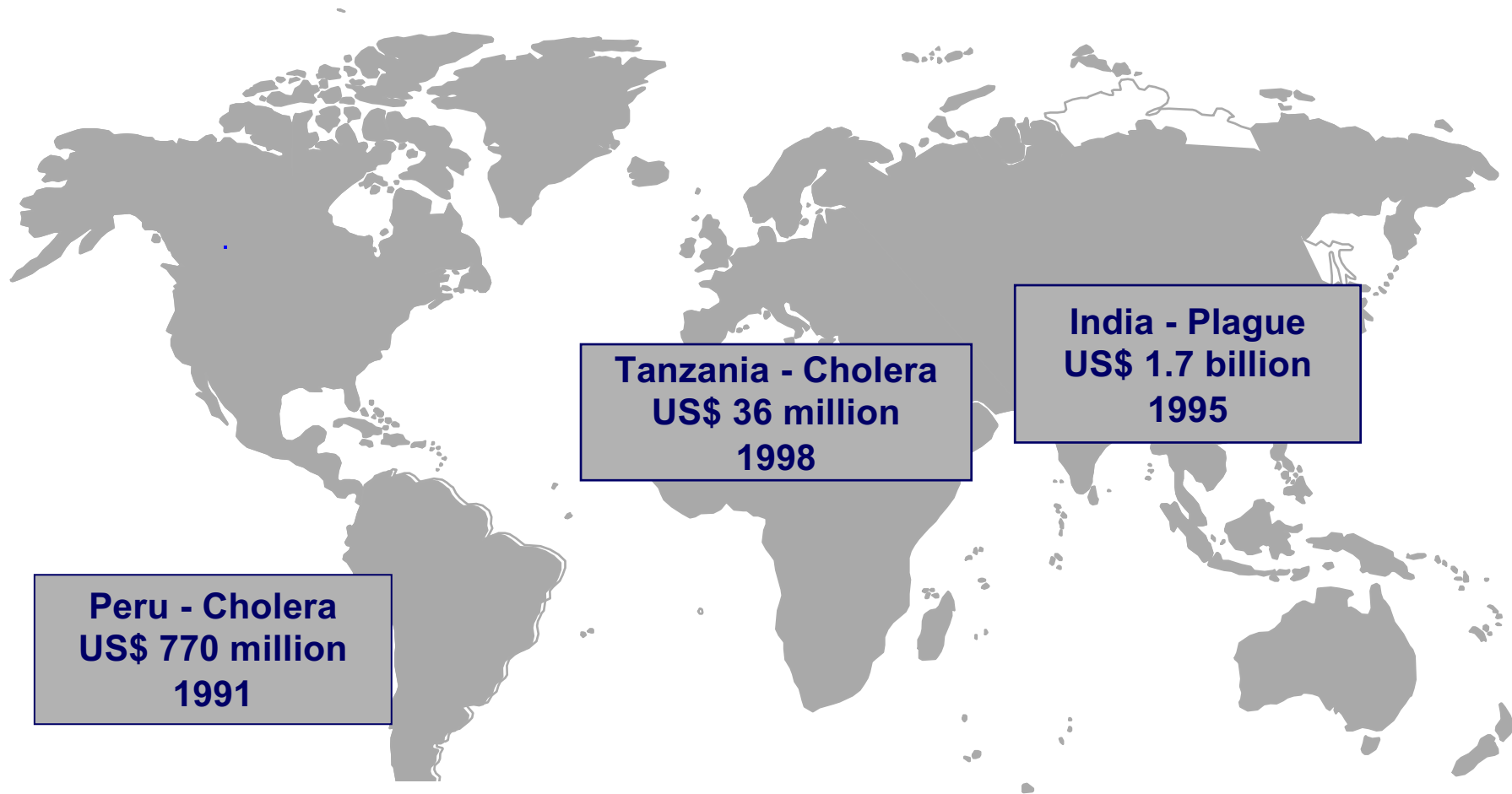
# Application of International Health Regulations, 1969

---

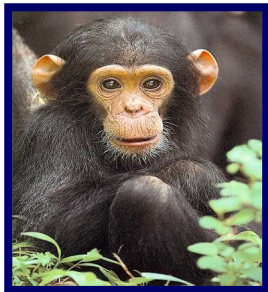


# Economic impact, cholera and plague, 1991-1998

---



# Breaches in species barrier: emerging infections in humans, late 20<sup>th</sup> century



Infection	Animal linked to transmission	Year infection first reported
Ebola virus	Bats	1976
HIV-1	Primates	1981
E. coli O157:H7	Cattle	1982
Borrelia burgdorferi	Rodents	1982
HIV-2	Primate	1986
Hendra virus	Bats	1994
BSE/vCJD	Cattle	1996
Australian lyssavirus	Bats	1996
Influenza A (H5N1 )	Chickens	1997
Nipah virus	Bats	1999

# **WHO: vision for revision of the International Health Regulations, 1996**

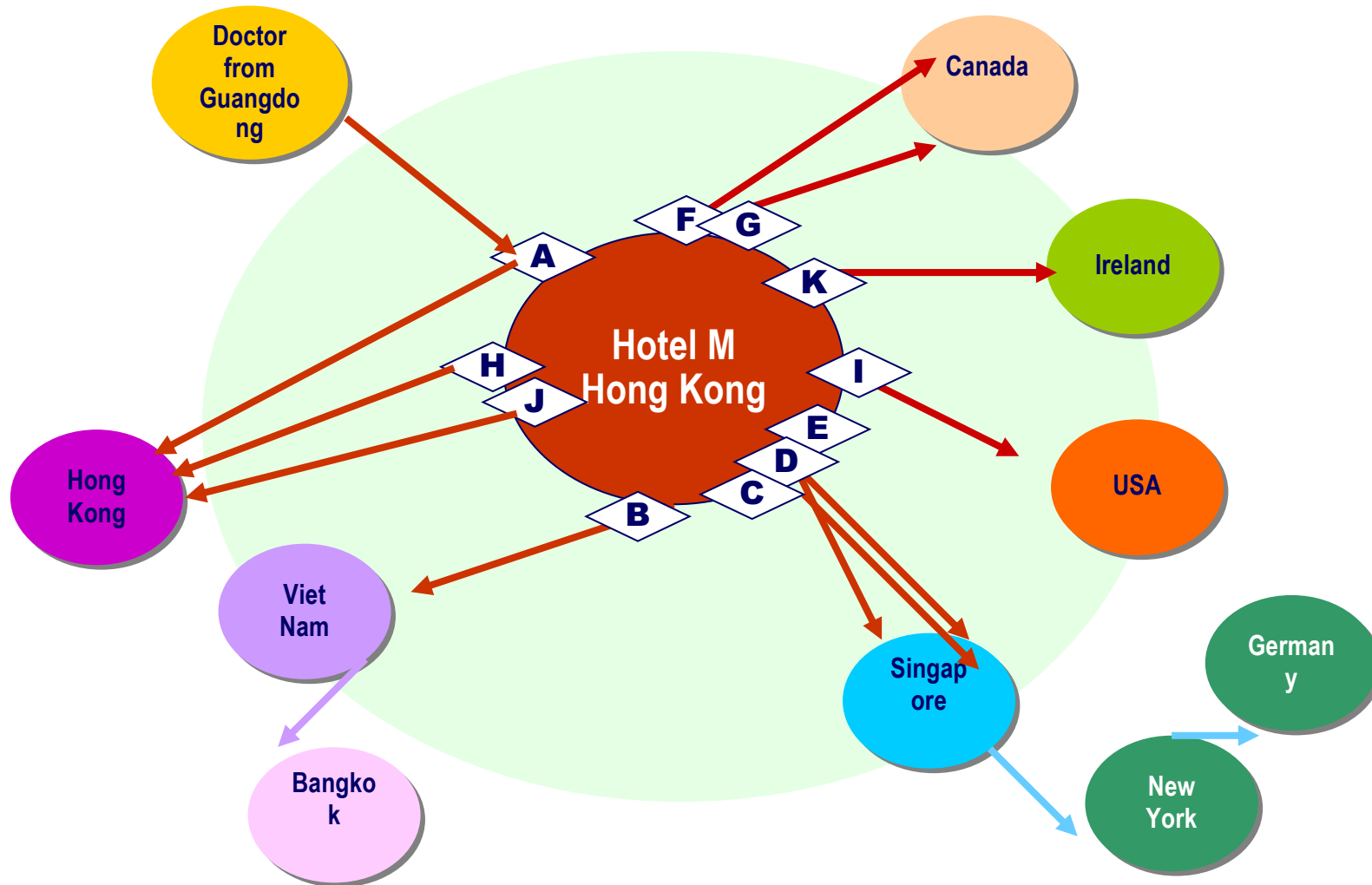
---

- *A world on the alert and able to detect and respond to international infectious disease threats within 24 hours using the most up to date means of global communication and collaboration*
- *A change in the norms surrounding reporting of infectious disease outbreaks, making it expected and respected to report*

# Global Outbreak Alert and Response Network



# SARS: international spread from Hong Kong, 21 February – 12 March, 2003



Source:  
WHO/CDC

# WHO real time guidelines, SARS, 2003: www.who.int/csr/sars/

World Health Organization

English | Español | Français

Search  OK

Home | Communicable Disease Surveillance & Response (CSR)

Countries | About CSR | Country Activities | Outbreak News | Resources | Media Centre

Health topics | Location: WHO > WHO sites > CSR Home > Severe Acute Respiratory Syndrome (SARS)

Publications

Research tools

WHO sites

CSR Home

Alert & Response Operations

Diseases

Drug Resistance

Global Outbreak Alert & Response Network

International Health Regulations

Laboratory & Epidemiology Strengthening

Preparedness for Deliberate Epidemics

Public Health Mapping

**Severe Acute Respiratory Syndrome (SARS)**

- [WHO Global Conference on SARS](#)

**Latest information:**

- [Update 71 - Status of diagnostic tests, training course in China - 2 June](#)
- [Cumulative number of reported probable cases - 2 June](#)
- [Case definitions for surveillance of SARS](#)
- [SARS Travel Recommendations, Summary Table - 2 June](#)
- [Map of current probable cases - 2 June](#)
- [China: Daily Report of SARS Cases - 2 June \(.pdf\)](#)

As provided by Ministry of Health, People's Republic of China

- [China: SARS Case Distribution by Prefecture\(City\) - 31 May \(.pdf\)](#)

As provided by Ministry of Health, People's Republic of China

- [Map of current probable cases in China - 2 June](#)

**MORE INFORMATION**

- [Guidelines, recommendations, descriptions](#)
- [WHO Collaborative Networks](#)
- [Travel advice](#)
- [Media](#)
- [Other information resources: links, images](#)

**WHO Global Conference on Severe Acute Respiratory Syndrome**  
17-18 June 2003  
[Open for registration](#)

WHO plans to hold an international conference in Kuala Lumpur, Malaysia to review the epidemiological, clinical management and laboratory

**HIGHLIGHTS**

[Severe Acute Respiratory Syndrome \(SARS\) main page](#)

**2 June 2003**  
Cumulative Number of Reported Probable Cases Of SARS  
[Full text](#)

**2 June 2003**  
Update 71 - Status of diagnostic tests, training course in China  
[Full text](#)

[SARS Travel Recommendations Summary Table](#)  
2 June

[Summary of WHO measures related to international travel \(French\) \(Chinese\)](#)  
23 May

[Lab testing: PCR primers](#)

**DISEASE OUTBREAKS**

[Severe Acute](#)

## Update 79 - Situation in China

China's Executive Vice Minister of Health, Mr Gao Qiang, and WHO's Executive Director for Communicable Diseases briefed the press this morning on the situation of SARS control in China. Also in attendance were Dr Qi Ziaoqi, Director-General of the

## Cumulative Number of Reported Probable Cases Of SARS

From: 1 Nov 2002<sup>1</sup> To: 2 June 2003, 18:00 GMT+2

Revised: 3 June 2003, 9.00 GMT +2

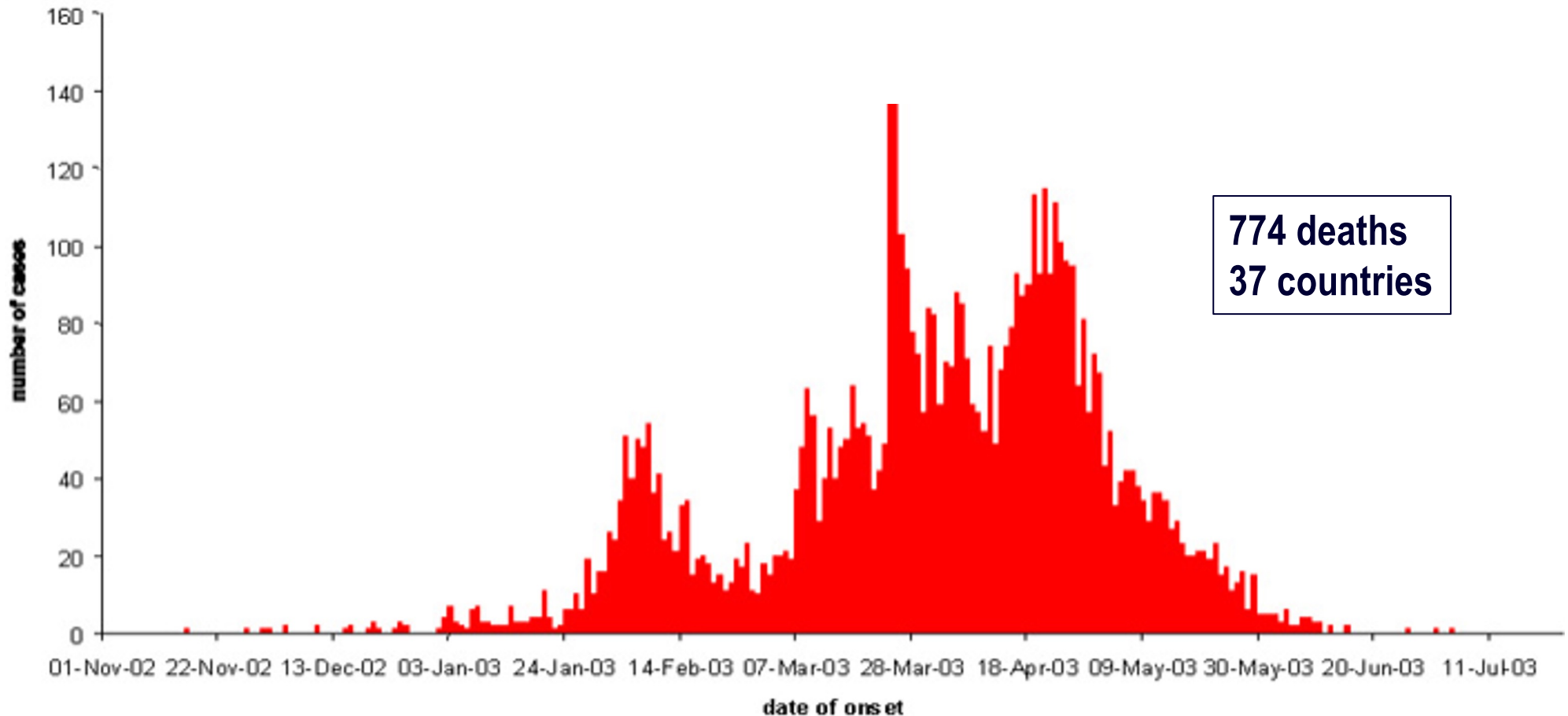
**Country Cumulative number of case(s)<sup>2</sup> Number of new cases**

Brazil	2	0	0	2	10/Apr/2003	24/Apr/2003
Canada	198	10	30	116	1/Jun/2003	1/Jun/2003
China	5378	2	334	3495	1/Jun/2003	2/Jun/2003

## SARS Travel Recommendations Summary Table

This table, updated daily, indicates those areas with recent local transmission of SARS for which WHO has issued recommendations pertaining to international travel.

# Probable cases of SARS by date of onset worldwide, 1 March – 27 June 2003



\* This graph does not include 2,527 probable cases of SARS (2,521 from Beijing, China), for whom no dates of onset are currently available.



# New norms for reporting and responding to infectious diseases, 2003



世界衛生大會 決議

قرار جمعية الصحة العالمية

RESOLUTION OF THE WORLD HEALTH ASSEMBLY  
RÉSOLUTION DE L'ASSEMBLÉE MONDIALE DE LA SANTÉ  
РЕЗОЛЮЦИЯ ВСЕМИРНОЙ АССАМБЛЕИ ЗДРАВООХРАНЕНИЯ  
RESOLUCION DE LA ASAMBLEA MUNDIAL DE LA SALUD

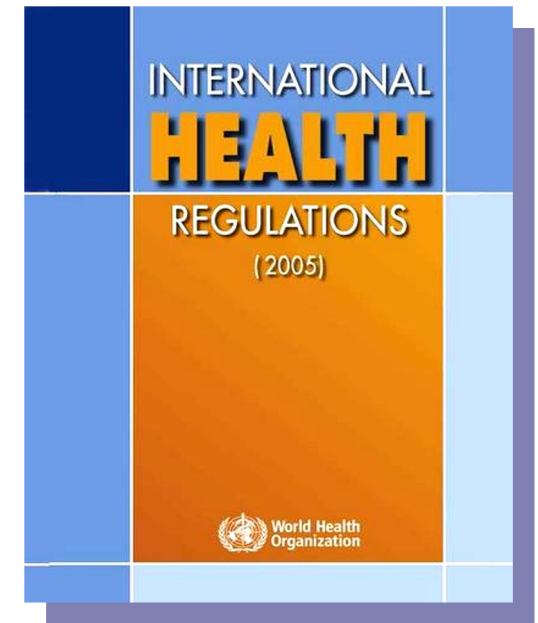
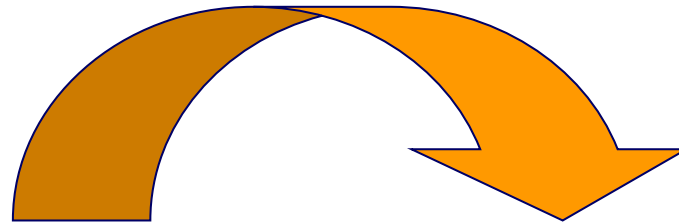
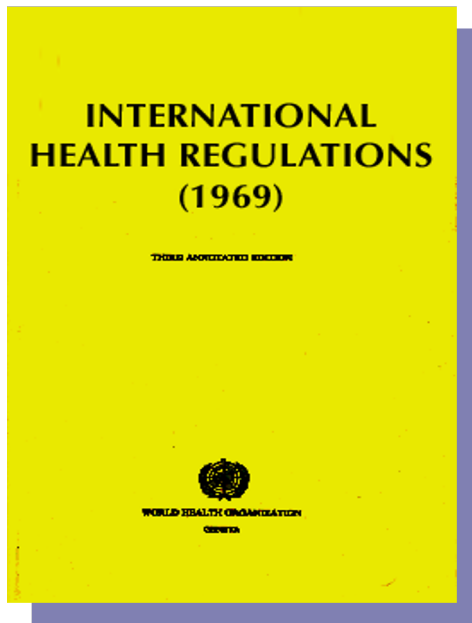
## Severe acute respiratory syndrome (SARS)

**All infectious diseases with potential for international spread to be reported**

**Reporting of infectious diseases from other sources accepted by WHO Member States**

**Revised International Health Regulations to serve as a formal framework for pro-active international surveillance and response through national IHR focal points**

# International Health Regulations 2005



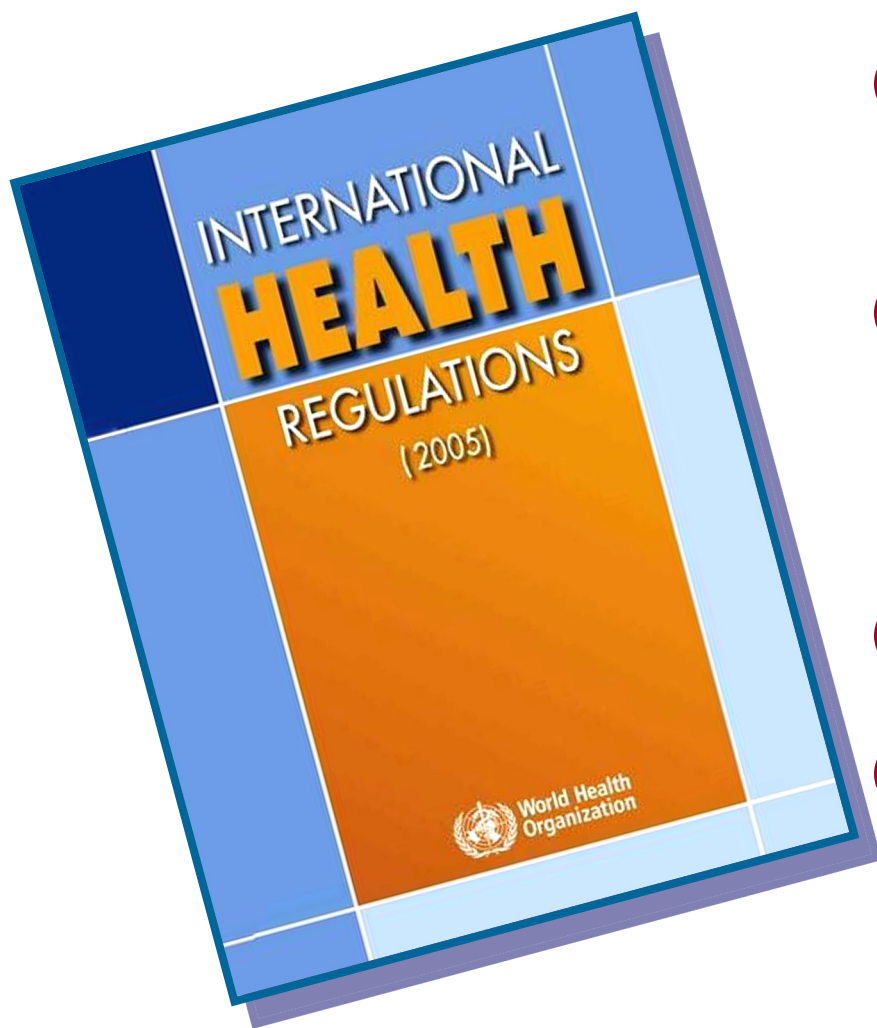
From **three diseases** to **all public health threats**

From **passive** to **pro-active using real time surveillance/evidence**

From **control at borders** to **detection and containment at source**

# Requirements, International Health Regulations

---



- Strengthened national core capacity for surveillance and control
- Mandatory reporting of possible public health emergency of international importance (PHEIC)
- Emergency Committee to advise DG
- Global response

# Core capacities in public health - example

Core Capacities MEASURE OF COMPLIANCE	Stage of Implementation (Justify answer and tick one only)			Describe stage of implementation of capacities and/or action to be taken (e.g. progress, gaps and plan for capacity development, including resource and timelines, etc.)  To be filled in by competent authority of Member State or person responsible for point of entry self assessment
	Full	Partial	None	
<b>(a) To provide appropriate public health emergency response by establishing and maintaining a Public Health Emergency Contingency Plan, including the nomination of a coordinator and contact points for relevant point of entry, public health and other agencies and services</b>				
<b>1. Public health emergency contingency plan</b> An agreed, updated, documented public health emergency contingency plan, integrated with other public health response plans (national/intermediate/local levels) and other emergency operational plans at point of entry, covering relevant services at point of entry and disseminated to all key stakeholders.				
<b>2. Integration with other response plans</b> A clearly structured allocation of functions within the public health emergency contingency plan, for all services and sectors involved at point of entry to carry out policy /guidance, coordination, management and evaluation functions during a public health response: <ul style="list-style-type: none"> <li>✓ coordinator/committee identified</li> <li>✓ sub-sector/ services contacts and plans in place</li> <li>✓ sub-sector/service contact points identified</li> <li>✓ contact points for key sectors/services at point of entry identified/nominated and details shared with competent authority</li> <li>✓ integration with possible sectoral plans contact points of key sectors/services at point of entry including public health, immigration, transportation, security, public information/media</li> <li>✓ identification of mechanism/system in operation and procedures in place for communication/collaboration between public health authorities, within national health surveillance system, with regard to reporting, information exchange, assessment and coordinated response, in coordination with national, intermediate and local public health alert and response plans</li> <li>✓ a reliable system for informing the local competent authority in charge to implement health measures of the pending arrival of a suspected case of a communicable disease, when traffic control or other authorities at point of entry have been notified of this by conveyances operators.</li> </ul>				
<b>3. Training and/or drill exercises</b> Periodic training and/or drill exercises to familiarize contact points of key sectors/services at point of entry with the public health contingency plan and respective roles and functions within it.				

# GLOBAL HEALTH SECURITY AGENDA



Global Health Security Agenda



ABOUT

MEMBERS & MEMBERSHIP

COUNTRY ROLES

EVENTS

RESOURCES

SUCCESSES

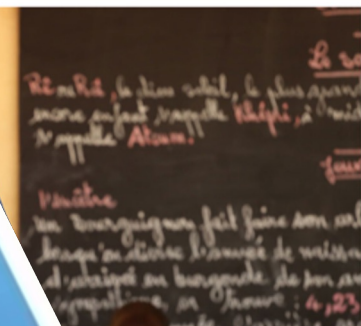
## About

The Global Health Security Agenda (GHSA) was launched to advance a world safe and secure from infectious diseases. It brings together nations from all over the world to make new, concrete commitments to global health security as a national leaders-level priority. The agenda was launched in June 2014, and Finland and Indonesia hosted commitment events to spur action in May and August.

GHSA acknowledges the essential need for a multilateral and multi-sectoral approach to prevent, detect, and respond to infectious diseases threats whether naturally occurring, deliberate, or accidental – including zoonotic infectious diseases, and bioterrorism events.

Through a partnership of nearly 50 nations, international organizations, and the private sector, GHSA is setting measurable targets around biological threats, while accelerating achievement of the [International Health Regulations \(IHR\)](#), the [World Organization of Animal Health's \(OIE\) Performance of Veterinary Services \(PVS\) 2020](#), and the [WHO Global Health Security Agenda \(GHSA\) Framework for Action](#), supported by a GHSA Steering Group composed of 10 member nations. The Chair of the Steering Group is [Dr. Tedros Adhanom](#).

In addition to individual countries, advisory partners include the [WHO](#), the [UN Food and Agriculture Organization \(FAO\)](#), the [UN Office for Disaster Risk Reduction \(UNISDR\)](#), and the [European Union](#).



to prevent, detect, and respond to infectious diseases threats, including zoonotic diseases, MERS, other highly pathogenic viruses, and antimicrobial resistance.

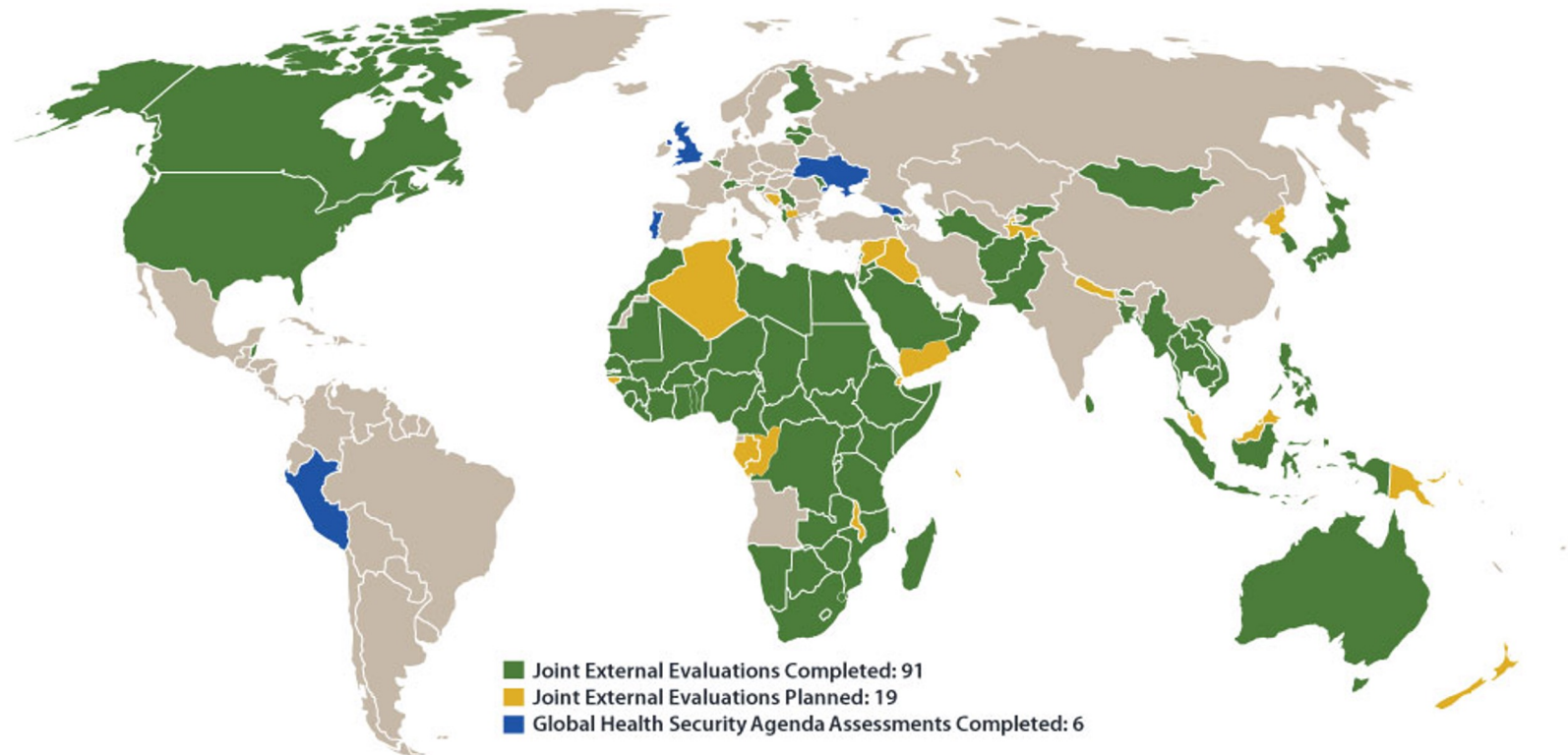
GHSA is building efforts to achieve specific and measurable targets around biological threats, while accelerating achievement of the [International Health Regulations](#) and the [WHO Global Health Security Agenda \(GHSA\) Framework for Action](#). This partnership is led and supported by the [G7](#).

Advisory partners include the [WHO](#), the [UN Food and Agriculture Organization \(FAO\)](#), the [UN Office for Disaster Risk Reduction \(UNISDR\)](#), and the [European Union](#), [Interpol](#), the [Economic Community of West African States](#), and the [African Union](#).

# Global Health Security Agenda, countries participating as of 1 January 2019

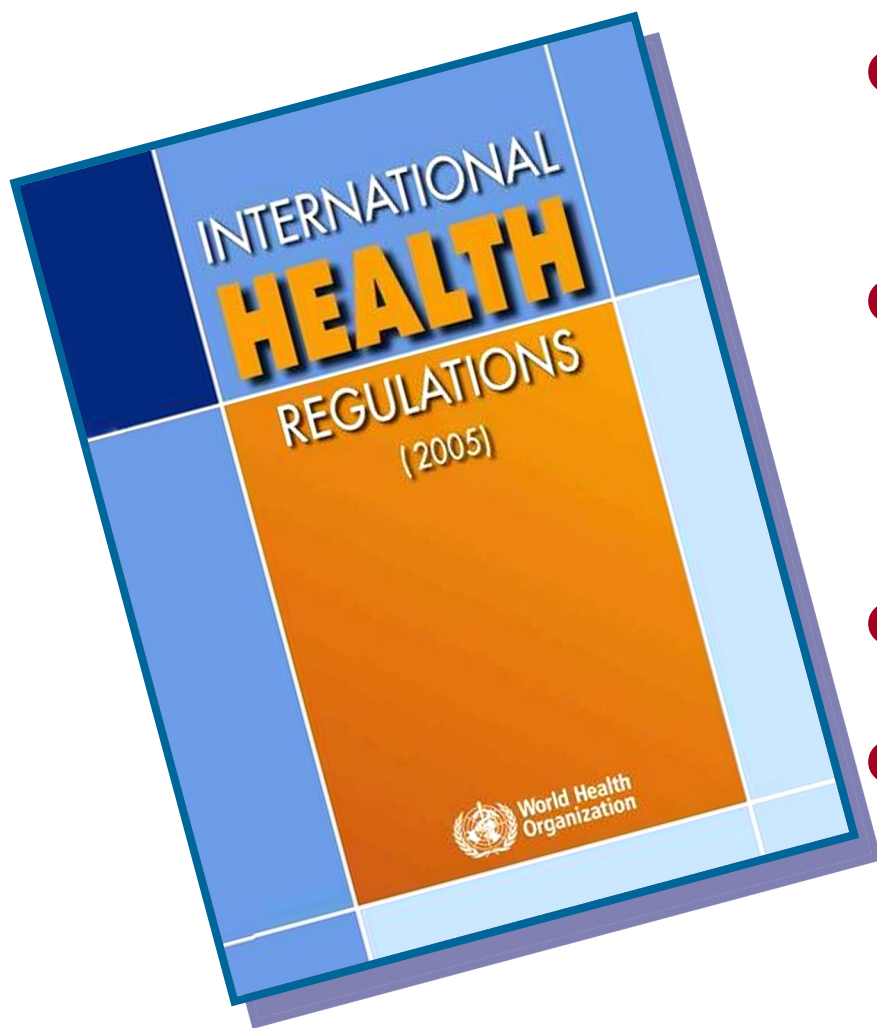
---

Completion of Joint External Evaluations Globally: End of 2018



# Requirements, International Health Regulations

---



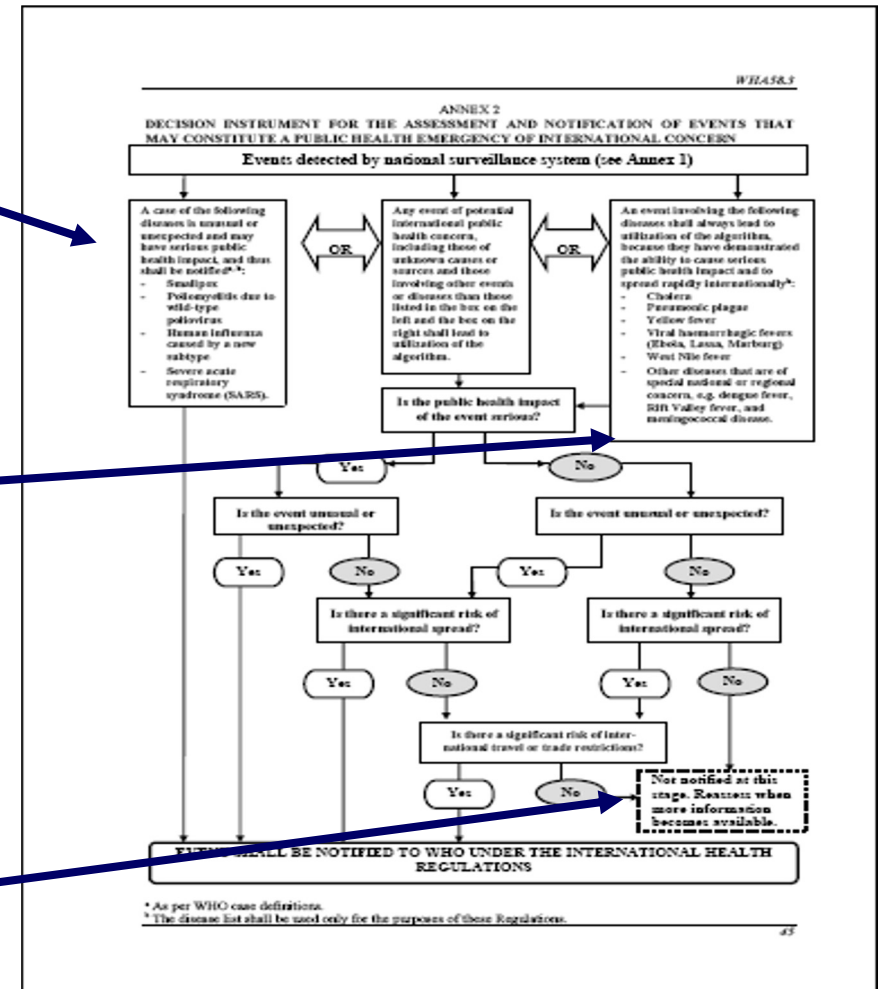
- Strengthened national core capacity for surveillance and control
- **Mandatory reporting of possible public health emergency of international importance (PHEIC)**
- **Emergency Committee to advise DG**
- **Global response**

# Decision instrument International Health Regulations, possible public health emergency of international concern (PHEIC)

4 diseases that shall be always be notified polio (wild-type polio virus), smallpox, human influenza new subtype, SARS.

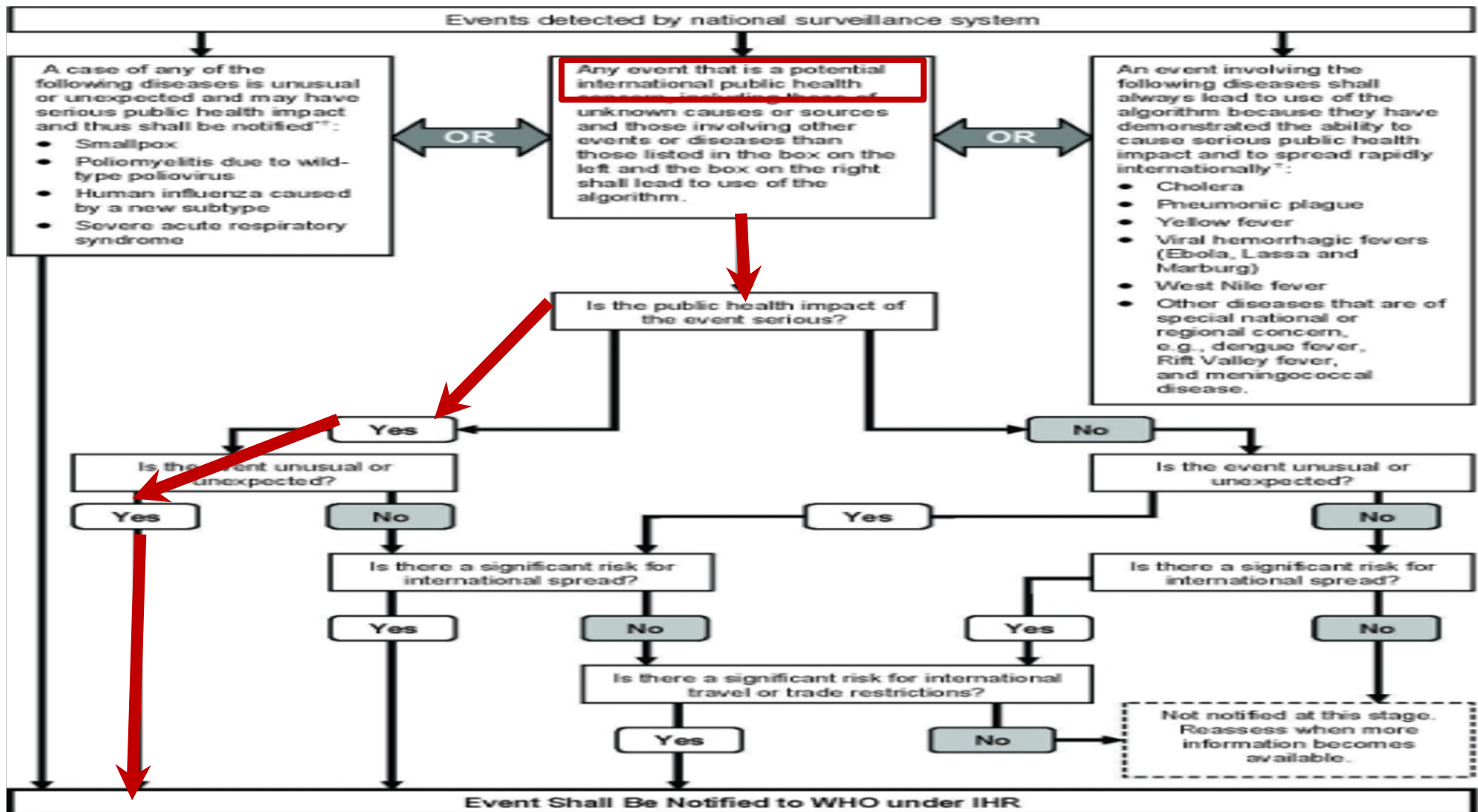
Diseases that shall always lead to utilization of the algorithm: cholera, pneumonic plague, yellow fever, VHF (Ebola, Lassa, Marburg), WNF, others that are unusual or unexpected and cause:  
 serious public health impact  
 risk of international spread  
 risk of travel/trade restriction

Insufficient information: reassess as evidence becomes available





# Decision instrument International Health Regulations, Zika

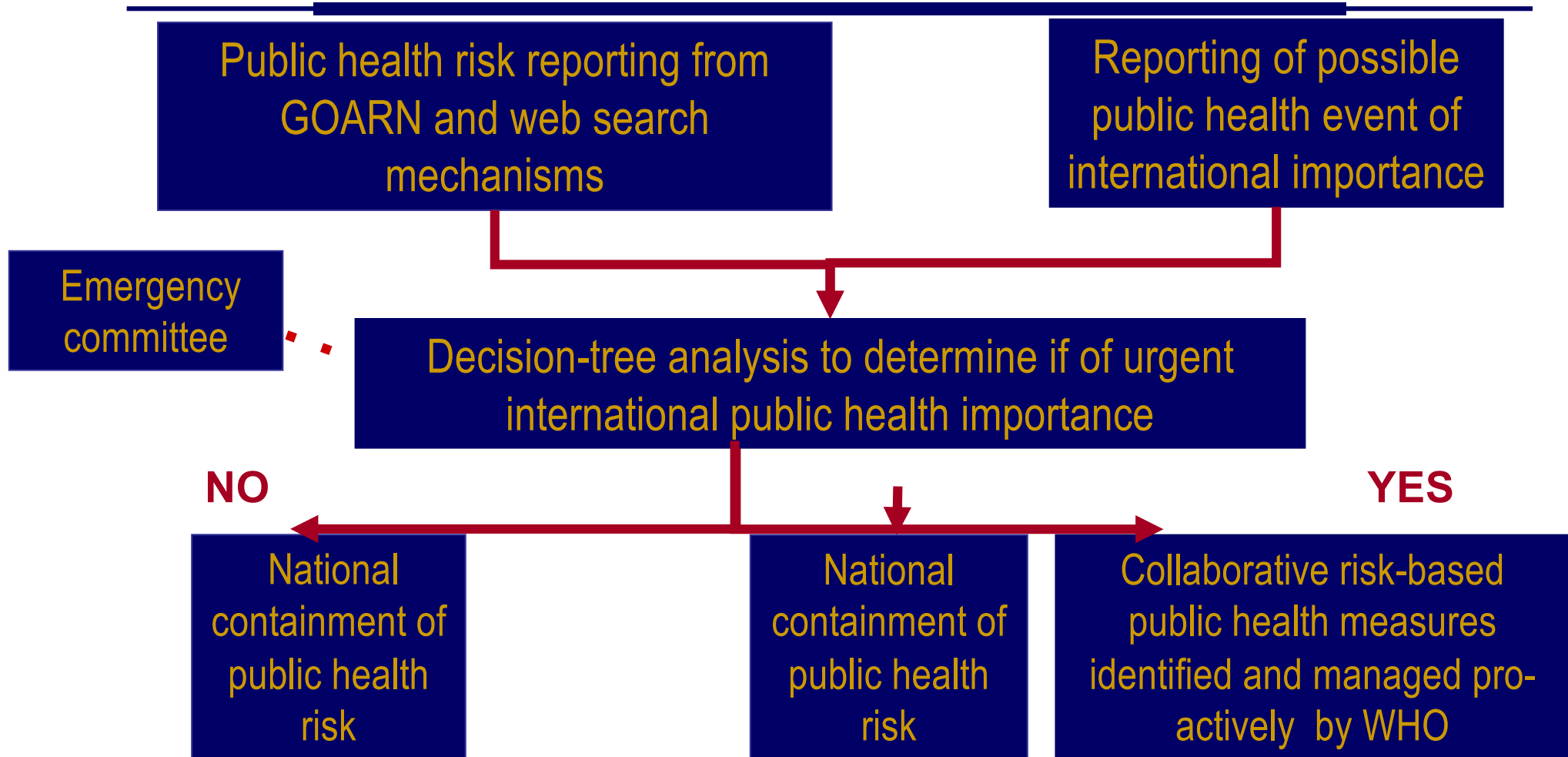


# IHR Emergency Committee, confirmation of PHEIC

---



# Decision making and response and the revised International Health Regulations 2005



# COVID-19 and the International Health Regulations 2005: Emergency Committee Recommendations

---

- 1) Share best practices with WHO; apply lessons learned from countries
- 2) Support multilateral regional and global organizations and encourage global solidarity in COVID-19 response.
- 3) Enhance and sustain political commitment and leadership for national strategies and localized response activities driven by science, data, and experience; engage all sectors in addressing the impacts of the pandemic.
- 4) Continue to enhance capacity for public health surveillance, testing, and contact tracing.
- 5) Share timely information and data with WHO on COVID-19 epidemiology
- 6) Strengthen community engagement, empower individuals, and build trust by addressing mis/disinformation a
- 7) Engage in the Access to COVID-19 Tools (ACT) Accelerator, participate in relevant trials
- 8) Implement, regularly update, and share information with WHO on appropriate and proportionate travel measures and advice, based on risk assessments; implement necessary capacities, including at points of entry, to mitigate the potential risks of international transmission of COVID-19 and to facilitate international contact tracing.
- 9) Maintain essential health services disasters.

**Statement on the fourth meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of coronavirus**

# IHR – some lessons learned from COVID-19

---

- WHO member countries decided to adopt travel recommendations based on the risk assessment of national advisory groups: non-collaborative, chaotic international travel contrary to the WHO Director General's blanket recommendation to not adopt barriers to international travel as initially recommended by the WHO
- Previous major 21<sup>st</sup> century public health events such as the SARS-CoV-1 outbreak in 2003 and the Influenza A(H1N1) pandemic in 2009: WHO accepted as the major source of information and guidance.
- Abundance of scientific evidence on COVID-19 available the internet
  - peer-reviewed publications in front of the medical journal paywall,
  - pre peer-reviewed manuscripts,
  - rapid communication through regional surveillance and other collaborative networks such as Africa CDC, ASEAN and IANPHI.

# IHR – vision for the future

---

Are the functions and scope of the IHR fit for pandemic preparedness

- do they clearly define data sharing:
- do they provide for sharing of benefits of public health innovations
- do they take advantage of the support that can be provided by the private sector

Is there a need for a standard methodology to assess the risks and benefits of closing international borders to traffic with the objective of delaying virus introduction

Will a pandemic treaty compensate for the weakness of the IHR, or will there be another revision?