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

1374

Venice
Ship Quarantine for Plague only

1851 - 1902

Europe/Americas
10 International Sanitary Conferences

1920

Geneva
League of Nations Health Organization

1951

Geneva
International Sanitary Regulations

1969 and 2005

Geneva
International Health Regulations
### Concern about public health security: plague, cholera, yellow fever and smallpox

<table>
<thead>
<tr>
<th>Year(s)</th>
<th>Location</th>
<th>Action/Outcome</th>
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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
Application of International Health Regulations, 1969

Disease reporting by countries (cholera, plague, smallpox, yellow fever)

Publication in Weekly Epidemiological Record

National containment activity

Application of pre-determined measures (maximum allowable)

- Tanzania - Cholera
  - US$ 36 million
  - 1998

- Peru - Cholera
  - US$ 770 million
  - 1991

- India - Plague
  - US$ 1.7 billion
  - 1995
Breaches in species barrier: emerging infections in humans, late 20\textsuperscript{th} century

<table>
<thead>
<tr>
<th>Infection</th>
<th>Animal linked to transmission</th>
<th>Year infection first reported</th>
</tr>
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<tbody>
<tr>
<td>Ebola virus</td>
<td>Bats</td>
<td>1976</td>
</tr>
<tr>
<td>HIV-1</td>
<td>Primates</td>
<td>1981</td>
</tr>
<tr>
<td>E. coli O157:H7</td>
<td>Cattle</td>
<td>1982</td>
</tr>
<tr>
<td>Borrelia burgdorferi</td>
<td>Rodents</td>
<td>1982</td>
</tr>
<tr>
<td>HIV-2</td>
<td>Primate</td>
<td>1986</td>
</tr>
<tr>
<td>Hendra virus</td>
<td>Bats</td>
<td>1994</td>
</tr>
<tr>
<td>BSE/\textit{v}CJD</td>
<td>Cattle</td>
<td>1996</td>
</tr>
<tr>
<td>Australian lyssavirus</td>
<td>Bats</td>
<td>1996</td>
</tr>
<tr>
<td>Influenza A (H5N1)</td>
<td>Chickens</td>
<td>1997</td>
</tr>
<tr>
<td>Nipah virus</td>
<td>Bats</td>
<td>1999</td>
</tr>
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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
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 Ziaoqiu, Director-General of the Department of Disease Control in the Chinese Ministry of Health, and Dr Henk Bekedam, WHO Representative to China.

Cumulative Number of Reported Probable Cases Of SARS
From: 1 Nov 2002¹ To: 2 June 2003, 18:00 GMT+2
Revised: 3 June 2003, 9.00 GMT +2
Country Cumulative number of case(s)² Number of new cases
Brazil 2 0 0 2 10/Apr/2003 24/Apr/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

774 deaths
37 countries

*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

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

<table>
<thead>
<tr>
<th>Core Capacities</th>
<th>Stage of Implementation</th>
<th>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.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURE OF COMPLIANCE</td>
<td>Full</td>
<td>To be filled in by competent authority of Member State or person responsible for point of entry self assessment</td>
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</table>

(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

1. Public health emergency contingency plan
   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.

2. Integration with other response plans
   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:
   - coordinator/committee identified
   - sub-sector/services contacts and plans in place
   - sub-sector/service contact points identified
   - contact points for key sectors/services at point of entry identified/nominated and details shared with competent authority
   - integration with possible sectoral plans contact points of key sectors/services at point of entry including public health, immigration, transportation, security, public information/media
   - 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
   - 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.

3. Training and/or drill exercises
   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

About

The Global Health Security Agenda (GHSA) was launched in June 2014, and Finland and Indonesia hosted commitments 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 -- from influenza, SARS, MERS, other highly pathogenic infectious diseases, and bioterrorism events.

Through a partnership of nearly 50 nations, international organizations, and stakeholders, GHSA is building efforts to achieve specific and 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, and the UN’s Sustainable Development Goals. This partnership is led by the Global Health Security Group, and GHSA is supported by a GHSA Steering Group composed of 10 member nations. The Chair of the GHSA is currently The Netherlands.

In addition to individual countries, advisory partners include the WHO, the UN Food and Agriculture Organization (FAO), the World Bank, the United Nations Children’s Fund (UNICEF), the United Nations Office for Disaster Risk Reduction (UNISDR), and the European Union.
Global Health Security Agenda, countries participating as of 1 January 2019

Completion of Joint External Evaluations Globally: End of 2018

- Joint External Evaluations Completed: 91
- Joint External Evaluations Planned: 19
- Global Health Security Agenda Assessments Completed: 6
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
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

Public health risk reporting from GOARN and web search mechanisms

Reporting of possible public health event of international importance

Emergency committee

Decision-tree analysis to determine if of urgent international public health importance

NO

National containment of public health risk

YES

National containment of public health risk

Collaborative risk-based public health measures identified and managed pro-actively by WHO
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.


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

June 2022 28
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 21st 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?