International Health Regulations (IHR)
Operational processes

Notification, verification and provision of information - Art 5-11

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2. WHO’s Public Health Intelligence workflow
3. Verification Requests
4. Notifications at Global Level
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IHR (2005) event notifications and PHEICs

States Parties are required to report all events that may constitute a public health emergency of international concern (PHEIC).

Since 2007 nearly 5,000 events have been reported by States Parties under IHR (2005) to WHO & 7 PHEICs declared.

Acute public health events reported to WHO by Region between 2007 and 2022 (n=4861)

Public Health Emergencies of International Concern 2007 and 2022 (n=7)

- H1N1: April 25
- EBOLA West Africa: August 8
- COVID-19: January 30
- POLIO: May 5
- ZIKA: February 1
- EBOLA DRC: July 17
- MPOX: July 23
IHR (2005): early detection and notification

- IHR (2005) are applied to all events that may constitute a public health emergency of international concern (PHEIC).

- Member States - at the national level assess all reports of public health events within 48 hours (Annex 1)

- **Notification** within 24 hours of assessment of public health information of all events which may constitute a PHEIC, through the national IHR Focal Point (Art. 6):
  - Irrespective of origin or source: chemical, biological or radionuclear; or from unknown etiology

- WHO may take into account reports from sources other than notifications and consultations (Art.9)
Notification using Annex 2

Always notifiable

- Smallpox, SARS, Wild-type poliovirus, Human influenza caused by new subtype

Any event of potential international public health concern that meet two of the criteria;

- Is the public health impact of the event serious?
- Is the event unusual or unexpected?
- Is there any significant risk of international spread?
- Is there any significant risk of international travel or trade restrictions?

Following notification

- obligation of continuous provision of accurate and sufficiently detailed information to WHO (Art 6.2)
What is reported at global level

Acute public health events (substantiated) (N=5,466) by year and WHO Region between 2007 and 2023

*Substantiated*: when the presence of a hazard is confirmed or the number of human cases exceeds normal thresholds.

Source: Event Management System
**What is reported in the Americas**

Acute public health events (substantiated) (N=1,258) by year, Region of the Americas, between 2007 and 2023

Acute public health events (substantiated) (N=1,258) by year and type of source, Region of the Americas, between 2007 and 2023

*Substantiated*: when the presence of a hazard is confirmed or the number of human cases exceeds normal thresholds.

Source: Event Management System, accessed 7 July 2023

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**Type (in percentage) of acute public health events (substantiated) reported in the Americas, by quinquennium, Jun 2007 – Jun 2023*.**

**Top ten (in percentage) substantiated infectious disease events reported in the Americas, Jun 2007 - Jun 2023**

*In 2022 the EMS was updated, and the categories animal/zoonosis and food safety were eliminated; events are now under the other remaining categories accordingly they do not appear in the June 2022-2023 data.*
WHO's Public Health Intelligence workflow

Event-based surveillance and information triangulation
- EROS
- Dedicated WHO email accounts
- GLEWS

Pieces of information
- Potential signals
- detention
- Health consultation

Signal triage and assessment
- Verification

Acute public health event
- Analysis and initial risk assessment

Reports of public health threats

Results in
- Average monthly stats
  - 60,000 pieces of information scanned
  - 1000 signals of relevance detected
  - 40 signals highlighted for WHO Emergency programme inputs
  - 35 new events
  - 5 Rapid Risk Assessments
  - 10 EIS for NFPs
  - DONs

Rapid risk assessment reports
- Event information site posting
- Disease outbreak news report

PAHO
120th Anniversary
WHO Verification request (Art 10)

- WHO may take into account reports from informal sources of information (i.e., reports from other countries, informal information, media reports).
- WHO is mandated to obtain verification from States Parties of events that have not been reported by a State and may constitute a PHEIC (Articles 5.4, 9.1 and 10.1)
- Communication via Regional IHR Contact Points and WHO Country Offices
- States Parties shall acknowledge these requests and provide available public health information on the status of the event within 24 hours, respectively (Article 10.2).
- In 2022, 66% of request for verification responses were received in 24-48hrs globally.
Verification: Proportion of IHR National Focal Point (NFP) responses to request for verification within 48 hours, by quinquennium

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Numerator</td>
<td>101</td>
<td>49</td>
<td>81</td>
</tr>
<tr>
<td>Denominator</td>
<td>243</td>
<td>127</td>
<td>168</td>
</tr>
<tr>
<td>% within 48h</td>
<td>42%</td>
<td>39%</td>
<td>48%</td>
</tr>
</tbody>
</table>

Source: Event Management System, accessed 7 July 2023
Events in the Americas – June 2007 to June 2022

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Region of the Americas</td>
<td>1.60</td>
<td>0.44</td>
<td>0.34</td>
<td>0.39</td>
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<tr>
<td>Andean</td>
<td>2.03</td>
<td>0.77</td>
<td>0.53</td>
<td>0.74</td>
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<tr>
<td>Central America</td>
<td>3.28</td>
<td>0.95</td>
<td>1.01</td>
<td>1.30</td>
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<tr>
<td>Caribbean</td>
<td>5.20</td>
<td>1.68</td>
<td>1.55</td>
<td>1.96</td>
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<tr>
<td>North America</td>
<td>0.60</td>
<td>0.26</td>
<td>0.19</td>
<td>0.15</td>
</tr>
<tr>
<td>Southern Cone</td>
<td>0.79</td>
<td>0.32</td>
<td>0.20</td>
<td>0.27</td>
</tr>
</tbody>
</table>

Substantiated: when the presence of a hazard is confirmed or the number of human cases exceeds normal thresholds.

Source: Event Management System

95% Confidence Interval
Detection: Time to reporting of substantiated events* by quinquennium and type of hazards, Region of the Americas

Mean and CI95%** of days to reporting event

<table>
<thead>
<tr>
<th></th>
<th>Time to reporting (mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2007 to May 2012</td>
<td>70.2</td>
</tr>
<tr>
<td>June 2012 to May 2017</td>
<td>46.7</td>
</tr>
<tr>
<td>June 2017 to May 2022</td>
<td>33.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Time to reporting (median)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>51.2</td>
</tr>
<tr>
<td>Infectious</td>
<td>47.1</td>
</tr>
</tbody>
</table>

Median and IQR of days to reporting event

<table>
<thead>
<tr>
<th></th>
<th>Time to reporting (median)</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2007 to May 2012</td>
<td>45.0</td>
</tr>
<tr>
<td>June 2012 to May 2017</td>
<td>42.0</td>
</tr>
<tr>
<td>June 2017 to May 2022</td>
<td>43.0</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>Time to reporting (IQR)</th>
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<tbody>
<tr>
<td>All</td>
<td>10.0</td>
</tr>
<tr>
<td>Infectious</td>
<td>7.5</td>
</tr>
</tbody>
</table>

*Substantiated: when the presence of a hazard is confirmed or the number of human cases exceeds normal thresholds.

**Confidence Interval (CI)95%: calculated using bootstrap method

Time to reporting: Timeframe between the estimated date of onset of the event and the date information was first received by PAHO/WHO

IQR: Interquartile range

Source: Event Management System, accessed 7 July 2023
Information Dissemination (Article 11)

- Sharing information with affected countries
- Sharing information with Member States
- Sharing information with the public health community / public
- Sharing information with other authorities
- Temporary recommendations in relation to a PHEIC

Source: Event Management System, accessed 7 July 2023
States Parties shall inform WHO within 24 hour of receipt of evidence of a public health risk identified outside their territory that may cause international disease spread, as manifested by exported or imported:

- Human cases
- Vectors which carry infection or contamination; or
- Goods that are contaminated

WHO informed and transfer as much information as possible to NFP
Alerting Member States – Event Information Site (EIS)

• EIS: secure website developed by WHO to facilitate communications with the National IHR Focal Points (NFPs) as part of the implementation of the IHR

• Information is provided by WHO to NFPs in confidence as specified in Article 11.1 of the IHR

• Information provided
  ✓ IHR criteria assessment
  ✓ Situation update
  ✓ Public Health Response
  ✓ WHO Risk Assessment
  ✓ WHO Advice/Recommendations
  ✓ Links for more information

• Compiled by technical experts across 3 levels of WHO
• Sent to NFP for consultation (an accuracy check)

https://extranet.who.int/ihr/eventinformation/

WHO shall send to all States Parties [...] as soon as possible [...] such public health information [...] which is necessary to enable States Parties to respond to a public health risk
Alerting the public – Disease Outbreak News (DONs)

• DONs: WHO's main communications product for the public on acute public health events > 25 years

• Contents
  • Situation at a glance
  • Description of the outbreak
  • Epidemiology of the disease
  • Public health response
  • WHO risk assessment
  • WHO advice
  • Further information links

• Multi-stage production & clearance process of technical experts across all 3 levels of the organization – approx. 10-50 individuals

https://www.who.int/emergencies/disease-outbreak-news
Alerting the public - Epidemiological Alert and Updates

- PAHO's main communications product for the public on acute public health events > 20 years

- Provide information on acute international public health events as well as recommendations issued by the Organization

- Alerts and Updates mainly on infectious agents, although they may also be of events concerning contaminated goods, food safety, or of chemical or radionuclear origin, per the provisions of the International Health Regulations (IHR (2005))

- Complement the WHO Diseases Outbreak News (DONs) postings

- Between January and Jun 2023, 23 alerts and updates have been issued.
Global and Regional Situation Reports (SitReps)
### Risk Assessment on chikungunya – Implications for the Region of the Americas

**Date of risk assessment:** 7 March 2023

#### Overall risk

<table>
<thead>
<tr>
<th>Region</th>
<th>Risk</th>
<th>Likelihood</th>
<th>Impact</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region A</td>
<td>High</td>
<td>Moderate</td>
<td>High</td>
<td>Moderate</td>
</tr>
<tr>
<td>Region B</td>
<td>Medium</td>
<td>High</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Region C</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

#### Confidence in available information

- **High:** Confident in the information available.
- **Moderate:** Some uncertainty.
- **Low:** Little or no information available.

#### Key Points
- **Significant increase in chikungunya transmission in several countries of the Region:**
  - Dengue, chikungunya, and Zika have been major threats.
  - This increase affects health facilities in terms of case management and outbreak response.

#### Action Plan
- **Immediate:**
  - Surveillance and early detection.
  - Public health measures to control transmission.
- **Intermediate:**
  - Research and development of vaccines and therapeutics.
- **Long-term:**
  - Development of sustainable prevention strategies.

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### Summary

**Date of assessment:** 22 February 2023

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#### Confidence in available information

- **High:** Confident in the information available.
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#### Key Points
- **Between 2015 and 2020, cases of vaccine-preventable diseases (measles) increased:**
  - Regional coverage for measles vaccination has dropped.
  - This increase in vaccine-preventable diseases stress health systems.

#### Action Plan
- **Immediate:**
  - Reinforcement of vaccination campaigns.
  - Increased monitoring of disease trends.
- **Intermediate:**
  - Development of strategies to improve vaccination coverage.
- **Long-term:**
  - Strengthening of health surveillance systems.

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### Risk Assessment on vaccine-preventable diseases (diphtheria, measles, yellow fever and polio): Implications for the Region of the Americas

**Date of risk assessment:** 4 May 2023

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#### Confidence in available information

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#### Key Points
- **Between 2015 and 2020, cases of vaccine-preventable diseases increased:**
  - Measles, diphtheria, polio, and yellow fever.
  - This increase stresses health systems in the Region.

#### Action Plan
- **Immediate:**
  - Strengthening of vaccination programs.
  - Improved monitoring and surveillance.
- **Intermediate:**
  - Development of strategies to improve vaccination coverage.
- **Long-term:**
  - Strengthening of health systems to handle increased demand.

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### Rapid Risk Assessments (RRAs)

**Risk assessment date:** 21 April 2023

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<table>
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#### Key Points
- **Between 2015 and 2020, cases of vaccine-preventable diseases (measles, diphtheria, polio, yellow fever) increased:**
  - This increase stresses health systems in the Region.

#### Action Plan
- **Immediate:**
  - Strengthening of vaccination programs.
  - Improved monitoring and surveillance.
- **Intermediate:**
  - Development of strategies to improve vaccination coverage.
- **Long-term:**
  - Strengthening of health systems to handle increased demand.
Monthly reports on notified events and requests for verification sent by the WHO Regional Contact Point

- Since January 2022, 17 monthly IHR reports have been distributed to IHR NFPs in the Region
- Provides a summary of IHR communications received and sent by WHO Regional Contact Point including
  - Notifications
  - Requests for verification (RFV)
  - Requests for further information (RFI)
  - Disease/condition
  - Timeliness of responses to RFV
- Includes relevant PAHO/WHO information products shared with IHR NFPs and published online
Annual Report on public health events assessed by the WHO Regional Offices, under the IHR

- Since 2016, 7 Annual Reports on Acute public health events assessed by WHO Regional Offices have been published.

- Initially as a joint venture between the Regional Offices of the Americas, Africa, and Europe and since 2021 at the Global Level.
Country specific annual report: Notified events and request for verification

- Disseminated to States Parties since 2018
- Summary of:
  - Notified events by the IHR NFP
  - Requests for verification (RFV) sent and responses received
  - Events published in the EIS
  - Events recorded in the EMS since June 2007
  - Hazard, disease/condition, aetiology of each event
Summary

- **WHO Public Health Intelligence activities** – WHO shall collect information regarding events through its surveillance activities and assess their potential to cause international disease spread and possible interference with international traffic. (Art 5.4)

- **Notification** of all events which may constitute a public health emergency of international concern (PHEIC) (per IHR Annex 2), with follow-up of relevant information (Art 6)

- **Consultations** with WHO on non-notifiable events (Art 8)

- **Reporting** of public health risks in other countries (Art 9.2)

- **Verification** and provision of available information on events if requested by WHO, with follow-up of information (Arts 9.1, 10)

- **Access to event information** disseminated by WHO through its secure Event Information Site (EIS) (Article 11)