Is reporting aquatic animal diseases important?

Aquatic Focal Point meeting, Qingdoa, China, December 12-14
UK Government Executive Agency
Research and regulatory responsibilities for fish and shellfish health
Home to the Fish Health Inspectorate (FHI).
Overview

- OIE standards for reporting
- OIE reporting system and disease freedom
- OIE objectives
  - Transparency
  - Sanitary safety
- Other benefits
  - Uses of WAHIS data
Article 1.1.2.

Member Countries shall make available to other Member Countries, through the OIE, whatever information is necessary to minimise the spread of important diseases of aquatic animals and their pathogenic agents and to assist in achieving better worldwide control of these diseases.
Reporting – listed diseases – 24 hour notification

Article 1.1.3.

1. first occurrence;
2. recurrence
3. first occurrence of a new strain;
4. a sudden and unexpected change in the distribution or increase in incidence or virulence of, or morbidity or mortality
5. occurrence in a new host species;
Reporting system

Two components to reporting

• Immediate 24 hour reports
  • an early warning system to inform the international community, by means of “alert messages”, of relevant epidemiological events that occurred in OIE Member Countries, and

• 6 monthly and annual reporting
  • monitoring system in order to monitor OIE Listed diseases (presence or absence) over time
Infection is reportable

in absence of disease

- ……the circumstances for regular as well as immediate notification of aquatic animal diseases do not require the presence of clinical disease or mortality.

- The Aquatic Code clarifies:
  - “The presence of an infectious agent, even in the absence of clinical disease, should be reported.”
Competent Authorities shall, under the responsibility of the Delegate, send to the Headquarters:
1. a notification through WAHIS or by fax or email, when an emerging disease event has occurred in a country, a zone or a compartment;

**EMERGING DISEASE**
means a disease, other than listed diseases, which has a significant impact on aquatic animal or public health resulting from:
1. a change of known pathogenic agent or its spread to a new geographic area or species; or
2. a newly recognised or suspected pathogenic agent.
Don’t forget diseases of wildlife

- Some listed diseases primarily affect wildlife
  - *Batrachochytrium dendrobatidis*
  - *Batrachochytrium salmandrivorans*
  - *Gryodactylus salaris*
  - Epizootic haematopoietic virus
  - Ranavirus

- Diseases in wildlife may be important reservoirs of infection for aquaculture
Why reporting is important

Countries with self-declared disease free status

- A commitment to notify disease occurrence is required to support any claim for a disease status (e.g. free, under control)
  WHICH
- Is the basis on which regulation of trade to minimise disease spread is based (i.e. free trade between areas of equal status)
Self declared disease freedom

From a specified pathogen

- OIE standards require
  - A legal obligation that the disease is notifiable
  - An early detection system is in place
  - Restrictions on imports (i.e. trade in live susceptible species only with countries of the same status)
why should countries report?
Reporting supports the OIE’s objectives

- Sanitary safety
- Transparency
  - To ensure transparency in the world animal health situation
- Scientific information
- International solidarity
- Food safety and animal welfare
- Promotion of veterinary services
Transparency

- Ensure transparency in the global animal disease situation
Key objectives of information collected and disseminated through WAHIS

PREVENT THE TRANSBOUNDARY SPREAD OF IMPORTANT ANIMAL DISEASES, INCLUDING ZOONOSES
- countries can take appropriate actions

SUPPORT ANIMAL HEALTH DECISION MAKING AND DISSEMINATING SCIENTIFIC KNOWLEDGE
**Benefits of WAHIS+**

*National veterinary services*

- Improve national surveillance
- Share information with national partners
- Spatial data for risk analysis, correlations with production loss,
- Visualisation of the global animal sanitary situation
- Predict disease outbreaks
- Analysis of long terms trends (30 years)
- Linkage to OIE PVS
“risk analysis can ensure that sanitary and phytosanitary measures are based on an assessment, ..., of risks to human, animals or plant life and health...”¹

¹ Sanitary and Phytosanitary Agreement (World Trade Organisation)

- Disease reporting supports risk management
Benefits of WAHIS+

Private sector

- Decisions about sourcing stock
- Enhanced understanding of national context of trading partners & health certification
- Opportunities to develop public-private partnerships
- Ability for private partners to incorporate official and reliable data on OIE-listed diseases into their strategic plans
Benefits of WAHIS+

Academia

- Up to date information on latest disease situation
- Training tool
- Global disease data source (from 1996)
- Data extraction function to support analysis
- Support development of research projects
...but it all depends on reporting

- Benefits of WAHIS+ only realised if reporting is timely, accurate and complete

"Garbage in, garbage out"

Your analysis is as good as your data.
<table>
<thead>
<tr>
<th>Country</th>
<th>Disease</th>
<th>Reason for notification</th>
<th>Disease manifestation</th>
<th>Outbreaks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Hepatopancreatitis in prawns</td>
<td>Emerging disease</td>
<td></td>
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<tr>
<td>Australia</td>
<td>Infection with Bonamia exitiosa</td>
<td>First occurrence</td>
<td>Clinical disease</td>
<td>2</td>
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<tr>
<td>Australia</td>
<td>White spot disease</td>
<td>First occurrence</td>
<td>Clinical disease</td>
<td>8</td>
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<tr>
<td>Canada</td>
<td>Viral haemorrhagic septicaemia</td>
<td>Unexpected change or increase</td>
<td>Clinical disease</td>
<td></td>
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<tr>
<td>Croatia</td>
<td>Koi herpesvirus disease</td>
<td>First occurrence in the country</td>
<td></td>
<td>4</td>
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<tr>
<td>Czech Republic</td>
<td>Koi herpesvirus disease</td>
<td>Recurrence</td>
<td>Clinical disease</td>
<td>2</td>
</tr>
<tr>
<td>Ireland</td>
<td>Koi herpesvirus disease</td>
<td>Recurrence</td>
<td>Clinical disease</td>
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<td>Kenya</td>
<td>Infect. haematopoietic necrosis</td>
<td>First occurrence in the country</td>
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<tr>
<td>Romania</td>
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<td>Recurrence</td>
<td>Clinical disease</td>
<td>1</td>
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<tr>
<td>Romania</td>
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<td>Clinical disease</td>
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<td>Clinical disease</td>
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<tr>
<td>South Africa</td>
<td>Epizootic ulcerative syndrome</td>
<td>Recurrence</td>
<td>Clinical disease</td>
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<tr>
<td>South Africa</td>
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<td>Recurrence</td>
<td>Clinical disease</td>
<td>1</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>Epizootic ulcerative syndrome</td>
<td>First occurrence in the country</td>
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<td>2</td>
</tr>
</tbody>
</table>
Current reporting

- Emerging diseases are not reported
- Low level of reporting from Asia-Pacific given importance of aquaculture
- Shrimp diseases are not often reported
Conclusions

Disease reporting…….

- Is essential to support claims of disease freedom
- Underpins OIE objectives to support safe trade
- Is essential for the development of evidence based disease control
- Is a global public good
Thank you for your attention