Current OIE standards in surveillance: Ten years since adoption

Angus Cameron
CHAPTER 1.4.
AQUATIC ANIMAL HEALTH SURVEILLANCE

Article 1.4.1.

Introduction and objectives:
1) Surveillance activities may be performed to achieve any of the following objectives:
   a) demonstrating the absence of a disease;
   b) identifying events requiring notification as listed in Article 1.3.3;
   c) determining the occurrence or distribution of endemic disease, including changes in their incidence or prevalence (or its contributing factors), in order to:
      i) provide information for disease control programmes;
      ii) provide relevant disease occurrence information to be used by trading partners for qualitative and quantitative risk assessment.

   The type of surveillance applied depends on the desired outputs needed to support decision-making. Surveillance data determine the quality of disease status reports and should satisfy information requirements for accurate risk analysis both for international trade as well as for national decision-making. Surveillance of endemic diseases provides valuable information for day-to-day health management and can act as the foundation for detecting outbreaks of exotic disease and demonstrating specific disease freedom.

   Surveillance systems described in this chapter should also be used to generate information for decisions on prescribed disease prevention and control programmes. However, the actual strategies for prevention and control are beyond the scope of this chapter on surveillance recommendations.

   Having suitable management strategy to respond to surveillance data is of utmost importance for the successful implementation of surveillance systems.

   2) Essential prerequisites to enable a Member Country to provide information for the evaluation of its animal health status are:
      a) that the particular Member Country complies with the provisions of the Aquatic Animal Health Services;
      b) that, where possible, surveillance data be complemented by sources of information (e.g. scientific publications, research data, documented field observations and other non-survey data);
      c) that transparency in the planning and execution of surveillance activities and the analysis and availability of data and information, be maintained at all times, in accordance with Chapter 1.1.

   3) The following recommendations may be applied to all species, their agents, and susceptible species listed in the Aquatic Manual, and are designed to assist with the development of surveillance methodologies. Where possible, the development of surveillance systems using these recommendations should be based on the relevant information in the individual disease chapters in the Aquatic Manual. These recommendations are also applicable to non-listed diseases that may be of importance to a country or region, such as new or emerging diseases. There is sometimes a perception that surveillance can only be conducted using sophisticated methodologies. However, an effective surveillance system can also be developed by making use of gross observations and already available resources.

   4) It would be impractical to try to develop a surveillance system for all the known aquatic animal diseases for which a country has susceptible species. Therefore, prioritising the diseases to be included in a surveillance system should be conducted considering:
      a) the needs to provide assurance of disease status for trade purposes;
      b) the resources of the country;
      c) the financial impact or threat posed by the different diseases;
      d) the importance of an industry-wide disease control programme within a country or region.

   5) More detailed information in each disease chapter (where it exists) of the Aquatic Manual may be used to further refine the general approaches described in this chapter. Where detailed disease-specific information is not available, surveillance can also be conducted following the recommendations in this chapter. Access to epidemiological expertise would be invaluable for the design, implementation of the system and interpretation of results derived from a surveillance system.
• History
• Key features
• Looking to the future

Overview
• A fine balance
  – Legislate or Lecture?
  – Audit or Adapt?
  – Today or Tomorrow?
Key features

- Output-based standards
- Value of alternative surveillance approaches
- Accumulation of evidence over time
- Factors to consider in surveillance design
- Flexible surveillance
# Output-based standards

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<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Presenter</th>
<th>Country</th>
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<tbody>
<tr>
<td>14:20–14:45</td>
<td>Terrestrial examples of substantiating freedom through outcome-based surveillance: what, why and how?</td>
<td>Preben Willeberg</td>
<td>Denmark</td>
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<tr>
<td>14:45–15:10</td>
<td>Why use outcome based surveillance?</td>
<td>Kristina Landsverk</td>
<td>Norway</td>
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*AusVet*  
Animal Health Services
Alternative surveillance approaches

• In the beginning...
  – Active (= survey)
  – Passive (= farmer reporting)

<table>
<thead>
<tr>
<th>13:55–14:20</th>
<th>Surveillance challenges under different farming and environmental conditions</th>
<th>Larry Hammell</th>
<th>Canada</th>
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</thead>
</table>

– Syndromic surveillance

| 16:05–16:30 | Engaging farmers in surveillance | Angus Cameron | Australia |

– Production indicator surveillance
– Sentinel surveillance
– Risk-based surveillance
– Participatory surveillance
Accumulation of evidence over time

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Surveillance for pathogens absent for two years, five years, or ten years: when can we stop?

Lori Gustafson
USA

AusVet
Animal Health Services
Factors to consider in surveillance

- Populations
- Epidemiological units
- Clustering
- Case and outbreak definitions
- Analytical methodology
- Testing
- Quality assurance
- Validation
- Data collection and management
Flexible surveillance

- Multiple approaches possible
- Economic assessment of alternatives

| 16:30–16:55 | Economics of different approaches to surveillance | Katharina Stärk  
             |                                               | United Kingdom |
Looking to the future

- Skills
- Purpose of surveillance
- Risk-based surveillance
- Data capture and management
- Farmer reporting systems
Skills for better surveillance

• Design
• Analysis
• Availability of tools

Explicitly identified in Chapter

Many more developed or under development
Purposes of surveillance

• Disease present
  – Occurrence and distribution
  – Case finding
• Disease absent
  – Demonstration of freedom
  – Early detection
Risk-based surveillance

• Better understanding
  – What it is, what it isn’t, when to use it

• Better tools and resources
  – RiskSur project
Data capture and management
Farmer reporting systems