Evaluation of surveillance systems in animal health: the need to adapt the tools to the contexts of developing countries

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Lyon, May 2011
Context for evaluation of surveillance

- Transboundary animal diseases / emerging diseases
- Dichotomy North/South:
  - Resources
  - Priorities

Worldmapper.com
How to ensure global use of SSIs?

- Adaptation to the socio-economic and epidemiological contexts

- Application to OASIS / SNAT Tool
  - Evaluation of the adaptability to HPAI and SEA
  - Field development: Lao and Cambodia
SNAT - Surveillance Network Analysis Tool

- Standardized tool
- For evaluation:

In depth analysis of operational efficacy and quality of epidemiological surveillance networks

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OASIS: an assessment tool of epidemiological surveillance systems in animal health and food safety

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### Section 2: Central Institutional Organisation

#### 2.1 Creation of the Network
- Date of creation of the network
- Did the network function in a non-formal manner prior to being established? [Yes] [No] [If yes, when?]

#### 2.2 Institution Responsible for Surveillance

##### 2.2.1 General Information
- **Name:** [establishment]
- **Relevant Ministry:** [ ]
- **Address:** [ ]
- **Telephone:** [ ]
- **Fax:** [ ]
- **E-mail:** [ ]

##### 2.2.2 Human Resources
- Precise if the information covers the entire system, including data collectors or if it only covers a part which needs to be defined:
  - Number of Engineers / Researchers / Manager:
  - Part of Veterinarians (DVM):
  - Number of technicians (technician with 2 or 3 years training):
  - Number of other staff (Secretary, driver, etc.):

#### 2.3 Central Unit

- **Existing:** [Yes] [No]
- **Operational:** [Yes] [No] [If yes, what type?]

##### 2.3.1 Composition
- **Formalised composition:** [Yes] [No] [If yes, what type?]
- **Composition (Number of staff and roles):** [ ]
- **Human resources in the central unit (in full-time equivalent):** [ ]

#### 2.4 Steering Committee (or Equivalent)

##### 2.4.1 Composition
- **Formalised composition:** [Yes] [No]
- **List:**
  - Veterinarian services:
  - Livestock farmers:
  - Other professionals (for example, merchants, associations, etc.):
  - Government departments:
  - Livestock projects:

#### 2.3.2 Roles and Responsibilities

- **Defined:** [Yes] [No]
- **Provide the roles and responsibilities:** [Yes] [No] [If yes, in what kind of document?]

- **Describe:** [ ]

- **Central Unit activities:** [ ]

- **Material means specific to the Central Unit:** [Yes] [No]
- **Financial means:** [Yes] [No]
  - If yes:
    - **Specific to the Central Unit (Animation unit):** [Yes] [No]
    - **Integrated into the general budget:** [Yes] [No]
- **Adequacy of material and financial means:** [Yes] [No]
# USER FRIENDLY SCORING

## SNAT - Scoring grid

<table>
<thead>
<tr>
<th>Network XXX</th>
<th>Sections and questions</th>
<th>Score (0 to 3)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Section 1: Objectives and context of surveillance</td>
<td>Point on the cell to access the scoring guide</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.1. Relevance of surveillance objectives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.2. Level of detail, accuracy, and formalization of objectives</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.3. Taking partners’ expectations into account</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.4. Coherence of the diseases under surveillance with the sanitary situation (existing/exotic diseases or threats)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>7</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>over</strong></td>
<td><strong>12</strong></td>
<td></td>
</tr>
</tbody>
</table>
Section 1 : Objectifs et champ de la surveillance

Section 2 : Organisation institutionnelle centrale

Section 3 : Organisation institutionnelle de terrain

Section 4 : Laboratoire

Section 5 : Outils de surveillance

Section 6 : Modalités de surveillance

Section 7 : Gestion des données

Section 8 : Formation

Section 9 : Communication

Section 10 : Evaluation
• 31 PARTICIPANTS
• Vet Services and Univ. Vietnam, Lao PDR, Cambodia, Thailand
• FAO, WHO, WB, CDC
Methodology

- 3 Groups of discussion
  - Surveillance system scenario
  - Review of Questionnaire and Scoring guide
    - 1) adequacy of the tool to the context of AI disease in SEA countries;
    - 2) simplicity and understanding of the tool;
    - 3) needs and recommendations for improvement.
Workshop Outputs

General
- Awareness on the importance of evaluation of surveillance
- Issue of objectives and scale of use: internal vs external evaluation
- Need for standardised approaches/tools

Limits of the tool
- Too complex: simplified version of questionnaire and scoring guide
- Importance of retroaction
- Cost benefit
- Subjectivity of the methods
Section 1: OBJECTIVES AND CONTEXT OF SURVEILLANCE
Section 2: CENTRAL INSTITUTIONAL ORGANIZATION
Section 3: FIELD INSTITUTIONAL ORGANIZATION
Section 4: LABORATORY
Section 5: SURVEILLANCE TOOLS
Section 6: SURVEILLANCE PROCEDURES
Section 7: DATA MANAGEMENT
Section 8: FORMATION
Section 9: COMMUNICATION
Section 10: EVALUATION
Field application

- Development of a “generic” tool for developing countries: simplified questionnaire and scoring guide
  - Referencing/re-organisation
  - Closed questions
  - User guide
- Development of specific tool for Lao and Cambodia (questionnaire)
Self-explained questionnaire

- Facilitate the understanding of questions and specific terms
- New definitions and examples

<table>
<thead>
<tr>
<th>Is there a charter (or other document), is it complete?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a document is complete if it is unambiguous on the rights and duties of the partners. If there are some gaps or misunderstandings, it will be considered as incomplete.</td>
</tr>
</tbody>
</table>

[ ] Yes  [ ] No

If it’s possible, attach the document
# Simple scoring guide

Organization and operations of the system laid down in regulations, a charter, or a convention established between the partners

To score, choose from the following options:

<table>
<thead>
<tr>
<th>The text (charter, regulations, other) concerns</th>
<th>The text is filled in</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>All partners</td>
<td>yes</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>no</td>
<td>2</td>
</tr>
<tr>
<td>More than half of partners</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>Less than half of partners</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>No text or no partners concerned</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
Easier scoring

Adequacy of material and financial resources of intermediary units

To score, choose from the following options:

Score of 3: Data collectors have all of the financial resources needed to carry out their surveillance activities. Score of 2: Data collectors’ conduct of surveillance activities is only slightly constrained by financial resources. Score of 1: Financial resources are a regular/constant concern for data collectors in carrying out surveillance activities. Score of 0: The issue of financial resources is a major constraint on data collectors and severely hinders their ability to conduct their surveillance activities.

- **Minor deficiencies**: generates a constraint on the structure but does not interfere with the conduct of surveillance activities
- **Medium deficiencies**: creates a constraint that interferes with the conduct of surveillance activities
- **Major deficiencies**: creates a constraint that severely limits the conduct of surveillance activities

<table>
<thead>
<tr>
<th>Deficiencies</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>No deficiency</td>
<td>3</td>
</tr>
<tr>
<td>At least one minor deficiency</td>
<td>2</td>
</tr>
<tr>
<td>At least one medium deficiency</td>
<td>1</td>
</tr>
<tr>
<td>3 medium deficiencies OR At least one major deficiency</td>
<td>0</td>
</tr>
</tbody>
</table>
Conclusion/Perspectives

- Evaluation is a critical part of surveillance process
- Countries need to define their own objectives
- Need to limit subjectivity
  - Standardized tools such as SNAT
  - Training / competencies
- Need for further development/adaptation:
  - Clarify means of implementation in the field
  - Action based
  - Economic evaluation
  - Bridges with Public Health surveillance
Acknowledgements

- All the workshop participants....

THANKS FOR YOUR ATTENTION