Veterinary Laboratories Agency

Introduction to pre-ISVEE workshop

Discussing the development and application of methods for effective surveillance in livestock populations

August 6-8 , Durban, South Africa

Aim of the workshop

To identify appropriate methods to achieve different surveillance objectives and any constraints limiting their implementation

Method

Discussion of appropriate methods for the collection and analysis of data to achieve specific objectives for a number of selected diseases or conditions

Anticipated output

A report summarising the conclusions reached about effective surveillance approaches for different objectives and methods to encourage their adoption and overcome any constraints thought likely to inhibit their implementation

The organising team

- Linda Hoinville, VLA, workshop co-ordinator
- Joey Ellis-Iversen, VLA, endemic disease data collection
- Daan Vink, Massey, endemic disease data analysis
- Eamon Watson, VLA, emerging disease
- Lucy Snow, VLA, exotic disease
- Jane Gibbens, Defra, implementation and constraints
- Ren Sheehan, VLA, practical support
- Absent friends
  - Alex Cook, VLA, workshop co-ordinator
  - Lara Inwood, VLA, practical support
  - Victor Del Rio Vilas, Defra, scientific support

Lara Inwood

Alex Cook

Brief participant introductions

- Name
- Institute
- Country
- Aspects of surveillance of particular interest

Agenda

- **Thursday**
  - Introduction – objectives, approaches, definitions
  - Session 1 – collection of endemic disease data
  - Session 2 – analysis of endemic disease data
  - Optional meal at Havanna Grill – estimate numbers
- **Friday**
  - Session 3 – detection of emerging conditions
  - Session 4 – certifying freedom from or detecting exotic diseases
- **Saturday**
  - Closing session – implementation and constraints

Format for sessions 1-4

- **Overview presentation** of strategies applied by session organiser (10 mins)
- **Participant presentations** – examples of strategies developed or applied (10 mins each)
  - Questions for clarification only at this stage – discussion of strategy selection in whole group discussions later
- **Small group discussions** – each group to discuss strategies for achieving the stated objective for a specific disease or condition (45 mins)
- **Whole group discussions**
  - Presentation of conclusions from each small group to whole group **focusing on description and evaluation of chosen strategies** (5 mins each)
  - Whole group discussion of strategies for different conditions (30 mins)

Plan for small group discussions – sessions 1-4

- Participants have been allocated to groups by organisers
- Discussion plan
  - Strategy identification (15 mins)
    1. Clarification of objective (target population, measure of disease frequency)
    2. Identification of appropriate strategies
  - Description and evaluation of selected strategies (20 mins)
  - Preparation of overview presentation (10 mins)
- Facilitator from organising team will keep discussions focussed and help to record discussions
- Group to elect participant to present summary of conclusions for whole group discussion at beginning of discussions – Ren will check!

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Introductory session – objectives, approaches and definitions

Aim of discussions in this session

- Present our proposed definitions and classifications of surveillance approaches
- Determine whether the proposed definitions and classification of approaches are clear for use in the discussions at this workshop
- Identify whether there are variations in the use of surveillance related terms we should be aware of
- **NOT** to reach agreement about all the definitions – could take more than 2.5 days!!

Surveillance objectives

Scanning surveillance objectives (disease not pre-specified)

- Detect emerging (new), re-emerging or exotic disease occurrence
- Identify changes in the health of the population

Targeted surveillance objectives (pre-specified disease)

- Certify freedom from exotic disease
- Assess the level or distribution of disease or condition
- Detect changes in level or distribution of disease or condition (may contribute to assessment of control measure efficacy)
- Identify risk factors for disease occurrence
- Detect cases to facilitate control (e.g. zoonosis)

Approaches for collecting data

Population included

- Unit of interest
- Where data collected
- Sampling strategy e.g. risk-based

Data collection mechanism

- Study design e.g sentinel
- How reported

Information collected

- Case definition e.g syndromic
- Other data

Need to consider different aspects of surveillance approach to describe fully

Evaluation criteria

- Sensitivity
- Specificity
- Positive predictive value
- Negative predictive value
- Timeliness
- Representativeness
- Coverage
- Data quality
- Cost
- Practicality (simplicity, acceptibility, flexibility, stability)
- Multiple utility

Small group discussions

- Aims of discussion
  - Are proposed definitions clear and acceptable
  - Identify variation in use of terms

All discussions based on information provided in summary of surveillance objectives, approaches and definitions document

- Groups a&b – Surveillance definitions and objectives (page 1)
- Groups c&d – Approaches for the collection of surveillance data and definitions of surveillance approaches (pages 2&3)
- Groups e&f – Surveillance evaluation criteria and their definitions (page 4)