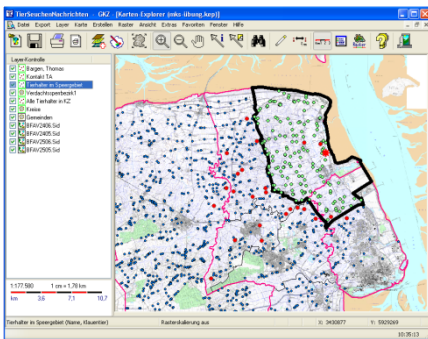


Epidemiological tools to support risk managers in controlling animal disease epidemics: where science meets politics

General information

Incursions of high-virulent infections such as classical swine fever, foot and mouth disease, bluetongue or avian influenza require prompt actions to avoid an uncontrollable disease spread with severe economical consequences. The success of controlling high-infectious disease epidemics lays in an early detection and elimination of infection sources and the restriction of spread to populations at risk. Veterinary authorities and risk managers wish to relay of science-based experts advice to decide upon the most efficient outbreak control.



Epidemiological research studies diseases in populations and may therefore provide important information and tools to risk managers during disease epidemics. However, the emerging situation of such epidemic requires specific short-term research actions.

The aim of the workshop is to explore aspects of epidemiological research, which can support risk managers and veterinary authorities in controlling animal disease epidemics. Common epidemiological methods will be applied in the context of the emergence of a high-infectious epidemic disease, where resources and time are limited and

data are scarce. During the workshop, participants will contribute to the formulation of risk management options, based on real-time examples.

Workshop philosophy

The workshop aims to help participants understand rather than just learn about applications of epidemiology when controlling disease outbreaks. This can only be achieved in a relaxed, informal and interactive environment using plenty of examples and hands-on exercises where participants apply and adapt what they have learned.

Target audience

This workshop is designed for professionals and researchers involved in the control and management of animal disease outbreaks, i.e. risk managers, risk analysts, epidemiologists, microbiologists, diagnosticians, etc. Some experience in veterinary epidemiology is an asset but no requirement.

The workshop specifications

- The workshop will be organised from 26 until 28 August 2012.
- Minimum number of attendees: 15 Maximum number: 25
- Participants should bring their own laptops

The workshop contents

Time	Session	Format	Items
Sunday 26 August 2012			
08:30 - 09:00	Registration & welcom		
09:00 - 10:30	Introduction	Theory	Objectives and purpose of the course History and characteristics of controlling animal disease epidemics
10:30 - 11:00	Coffee break		
11:00 - 12:30	Case study: Classical swine fever outbreak in Eplonia	Exercise	Objectives of the case study & presentation of scenario: First scenario: cases in neighbouring country; brainstorming on what to do & measures to take
12:30 - 13:30	Lunch break		
13:30 - 15:00	Data collection	Theory	Surveillance methodology Clinical Epidemiology
15:00 - 15:30	Coffee break		
15:30 - 17:30	Case study: part II	Exercise	Case in a neighbouring country Setting up a surveillance system
Monday 27 August 2012			
09:00 - 10:30	Epidemiological tools	Theory	Data collection and management Obtain information on key parameters and events
10:30 - 11:00	Coffee break		
11:00 - 12:30	Case study: part III	Exercise	Suspicion on a farm: Introduction to the affected farm Epidemiological investigations
12:30 - 13:30	Lunch break		
13:30 - 15:00	Decision tools	Theory	Reporting tools & data management multi-criteria decision analysis
15:00 - 15:30	Coffee break		
15:30 - 17:30	Case study part IV	Exercise	Confirmed case: epidemiological reporting tools
Tuesday 28 August 2012			
09:00 - 10:30	Epidemiologic research during and after epidemics	Theory	Reproduction ratio, case-control studies
10:30 - 11:00	Coffee break		
11:00 - 12:30	Case study: part V	Exercise	Decision tools Presentation of results
12:30 - 13:30	Lunch break		
13:30 - 14:00	Freedom from disease	Theory	Freedom of disease including all uncertainty
14:00 - 15:30	Case study: part VI	Exercise	Freedom from disease Developing maps
15:30 - 16:00	Workshop closure		

Registration fee

The workshop fee is 700 euro. Included is a binder with workshop material, a USB-stick with all workshop material and literature references in digital form; coffee and tea breaks, and lunch.

The history of the workshop

The workshop was organized in 2010 hosted by the EPIZONE Network of Excellence at the Friedrich Loeffler Institute in Wusterhausen, Germany. Summary statements by the workshop participants were:

- Innovative epidemiological tools in a fun and interactive atmosphere to better assess control measures and intervention strategies
- The workshop gave a comprehensive overview on epidemiology & epidemiological tools to be used in outbreak scenarios with the most important animal epidemics, with an emphasis on CSF
- Good summary of epidemiological science applied to outbreak control
- Good opportunity to learn about control and research during epidemics. In addition you learn from the experience in this matter of participants from different countries

Short biographies and contact information of all the workshop organizers

Koen Mintiens

Avia-GIS, Zoersel, Belgium

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Koen Mintiens is leading the Health Information Systems unit at Avia-GIS and is specialized in epidemiology and risk analysis related to animal health management. With a background in veterinary epidemiology and biostatistics, Koen has been providing science-based expert advice to national and international authorities related to the control of animal disease for more than 18 years. He has been involved in the control of animal disease epidemics (classical swine fever, foot and mouth disease, avian influenza, bluetongue) by providing risk options and risk-based surveillance tools to risk managers. Koen has equally been involved in contingency planning and the organization of simulation exercises.

Koen has been consultant for the European Commission (DG SANCO), the European Food Safety Authority (EFSA), the Food and Agriculture Organization (FAO), and the International Organization for Animal Health (OIE). He has been project manager for many national and EU funded scientific research project on different topics related to animal disease control.

Armin Elbers

Central Veterinary Institute (CVI) of Wageningen UR, Lelystad, the Netherlands

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After 17 years with the Dutch Animal Health Service (Boxtel and Deventer in the Netherlands) working in the Pig Health Department and for a long time as head of the Epidemiology Department, he is now working for 8 years as an epidemiologist within the department of Epidemiology, Crisis Organisation and Diagnostics of CVI, with a main focus on development of early detection systems for notifiable animal diseases. He has been consultant for several international institutions in relation to control of animal disease epidemics (European Commission (EU), European Food Safety Authority (EFSA), and the Canadian Food and Inspection Agency (CFIA)). He is author and co-author of approximately 140 peer-reviewed scientific publications. He was attached to the national and local crisis centre as an epidemiologist during several notifiable animal disease epidemics in the Netherlands : classical swine fever in 1997-1998; foot-and-mouth disease in 2001; highly pathogenic avian influenza (H7N7) in 2003; bluetongue serotype 8 in 2006-2008. Parallel to fighting those epidemics, scientific research was done to be better prepared for the future and learn lessons from what happened.

Christoph Staubach

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Christoph Staubach is working since 1995 as senior scientist at the Institute of Epidemiology. As member of the task force he investigated outbreaks in husbandry and wildlife animals. He is experienced in the management of large databases using database software, web applications and geographical information system (GIS). Furthermore, he is the manager of the GIS at the FLI and responsible for the spatial component of the animal disease notification and crisis management system of Germany (TSN). In the framework of TAIEX and twinning programs of the EC and FAO he supported veterinary authorities to improve animal disease control.