

A web-based early warning system for the detection of emerging animal diseases in Belgium

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Introduction

In 2006, the unexpected emergence of Bluetongue disease in Belgium was detected and identified only after several weeks since it was a totally uncommon disease in cattle. Later on, the disease caused important economic losses due to export limitation and poor production performances.

This outbreak clearly highlighted the need for an early detection system to reduce the possible impact of emerging diseases on animal and public health. Therefore the Belgian sanitary authorities launched the set up of a **Monitoring and Surveillance System (MoSS)** targeted at the detection and control of potential emerging diseases.

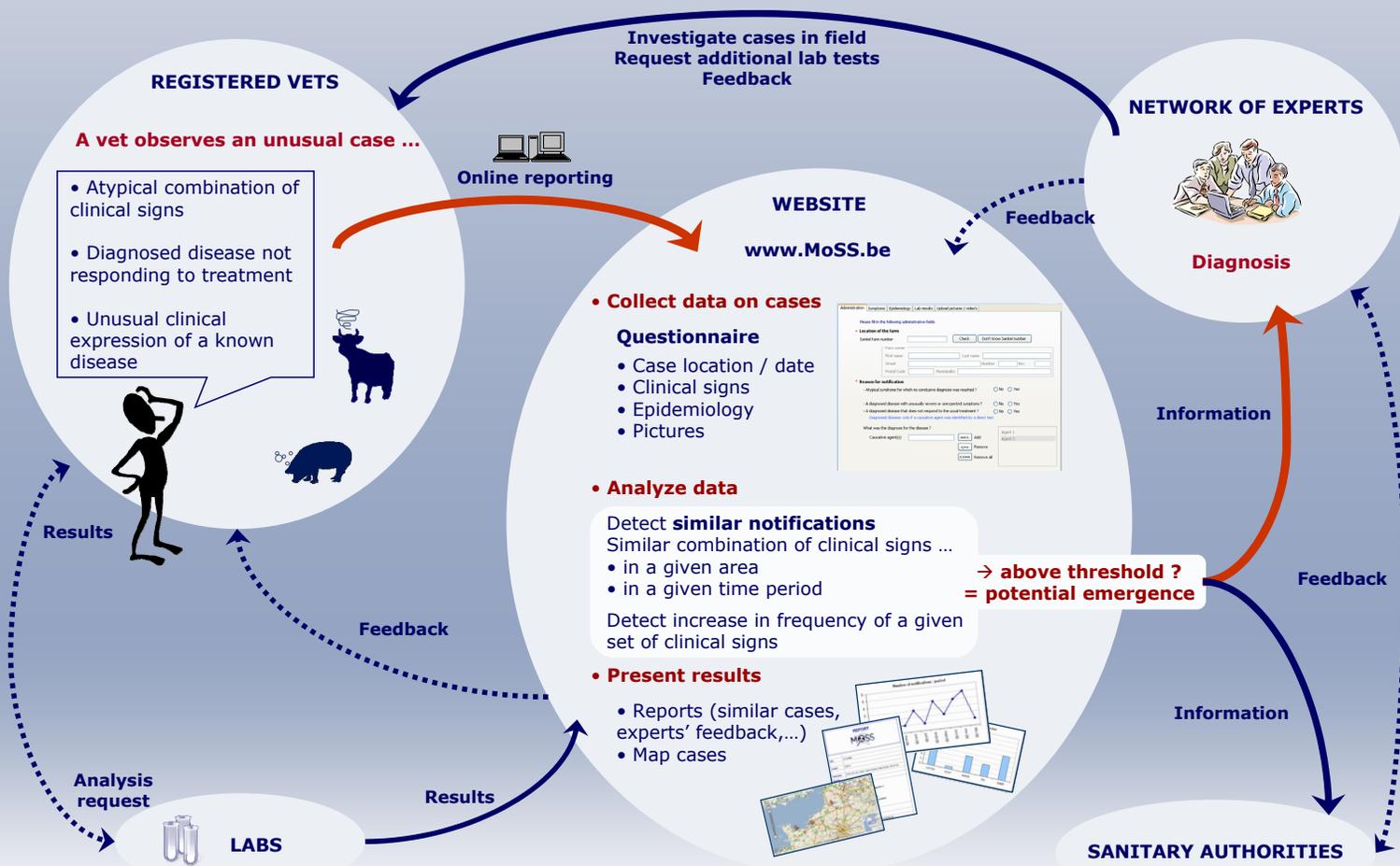
Objective

Early detection and identification of emerging and re-emerging animal diseases.

The MoSS includes a web-based tool that allows us:

- to collect clinical information on atypical syndromes that could be related to emerging diseases
- to analyze the pattern of occurrence of these atypical cases in order to **detect potential emergences**
- to make a preliminary assessment of spatio-temporal distribution and epidemiological characteristics of these cases.

Web-based notification and reporting



Expected results and perspectives

- Development of complementary methods for:
 - the **clustering** of reported cases with respect to the observed syndromes,
 - the identification of possible **spatio-temporal groups** of cases,
 - the detection of changes in the frequency of different clinical signs.

- Reinforcement of a **network** among veterinary field practitioners, experts and sanitary authorities.
- Easy implementation of a Belgian - French **transboundary surveillance** thanks to the common development.