

# **Syndromic surveillance in Europe: Current situation in human and animal health and possible synergies**

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# Context: The TRIPLE S project

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- **Syndromic Surveillance (SyS) Systems in Europe**
- **Co-financed by European Commission**
- **Sept 2010- Sept 2013**
- **Both Human (InVS) and Animal Health (Anses) SyS**
- **Inventory of SyS systems**
- **Guidelines for implementation of SyS system**



# Objectives

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- **Identify and describe syndromic surveillance (SyS) systems or initiatives in Europe**
- **Identify possible gaps and expectations**  
→ **Guidelines**
- **Create a network of people involved in SyS in Europe and a bridge between human and animal health**



# Triple-S SyS definition

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“Syndromic Surveillance is the **real-time** (or near real-time) collection, analysis, interpretation and dissemination of health-related data to enable the **early identification of the impact (or absence of impact)** of potential **human or veterinary** public-health threats which require effective public health action” (*Triple-S project, 2011, Lancet*)



# Method

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## 1) Identification of persons involved in SyS

- Literature review: European authors of scientific papers
- Official contact in animal and human health (EFSA focal points, CVO, Ministry of Health, Institute of Public Health...)

→ **248/28** contacts identified

## 2) Brief questionnaire together with short presentation of Triple-S project and Triple-S SyS definition

→ **22/24** answers

# Method

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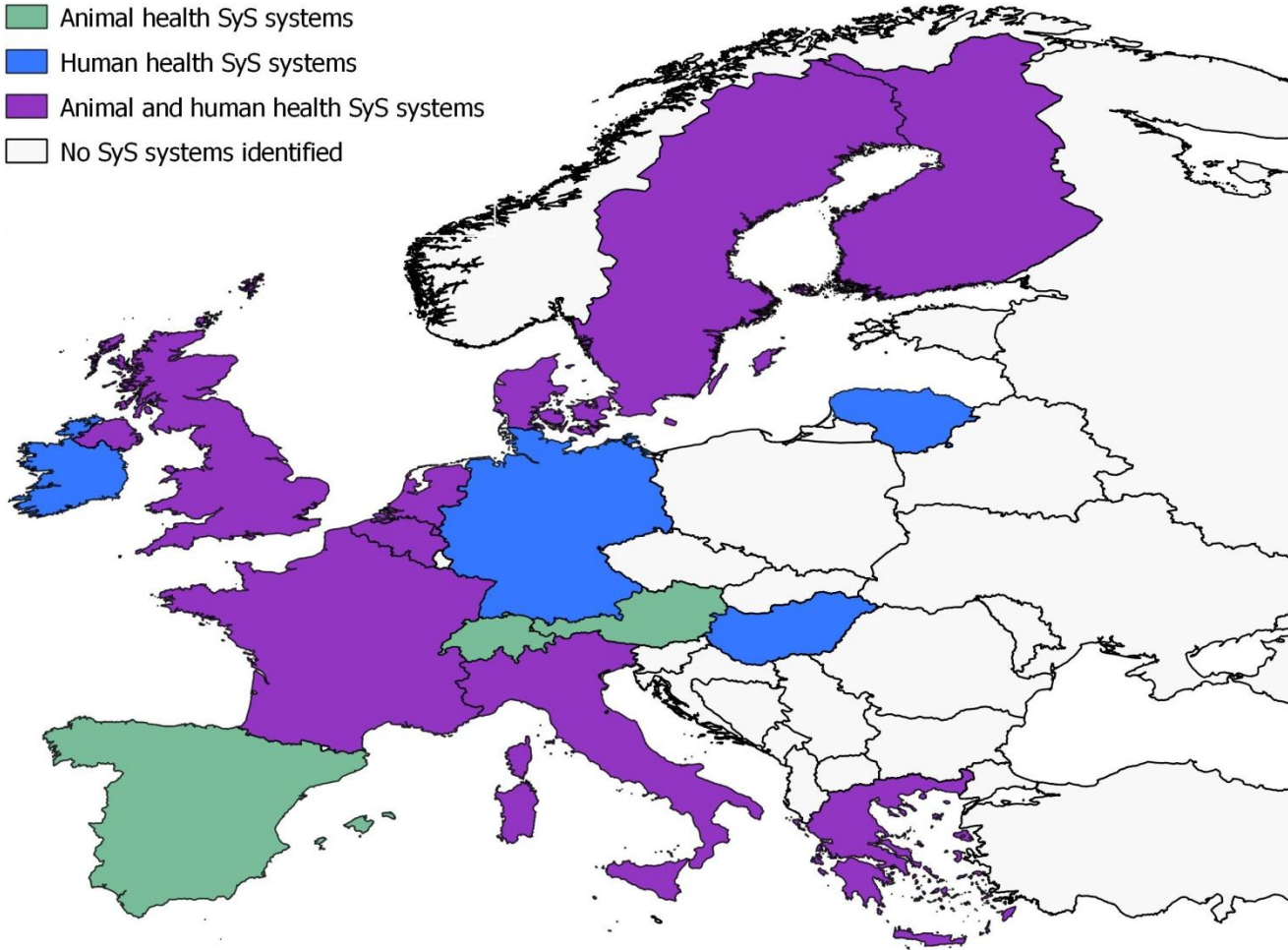
## 4) Long questionnaire sent to 26/39 people:

- General characteristics of the system
- Data providers
- Data collected
- Data analysis
- Data dissemination
- Uses and evaluation of the system

# Descriptive analysis

- **27/33** systems identified from **12/15** countries

- Animal health SyS systems
- Human health SyS systems
- Animal and human health SyS systems
- No SyS systems identified



Brief description of each system available on the Triple-S website

<http://www.syndromicsurveillance.eu/>

# Differences between human and animal health SyS systems

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- Most systems in active phase in human health **22/33** versus **12/27** in animal health  
→ **SyS at an early stage in animal health**
- Outbreak detection is an objective for **44%** / **100%** of SyS systems
- Data transmitted at least daily for **70%** / **54%** of SyS systems

Animal health SyS systems / Human health SyS systems





# Differences between human and animal health SyS systems

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- **Lack of knowledge in data analysis particularly in animal health: 12/2 systems do not yet use statistical methods**
- **No standardized coding systems for clinical signs or lesions in animal health**



# Differences between human and animal health SyS systems

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- **Complexity and diversity of animal health SyS systems (n=27)**
  - 33% > one population (several species)
  - 56% > one objective
  - 78% > one data source
  - 80% > one indicator
- **Human health SyS systems (n=33)**
  - 67% use only one type of data source
  - 80% monitor influenza-like illness

Animal health SyS systems / Human health SyS systems



# Similarities between human and animal health SyS systems

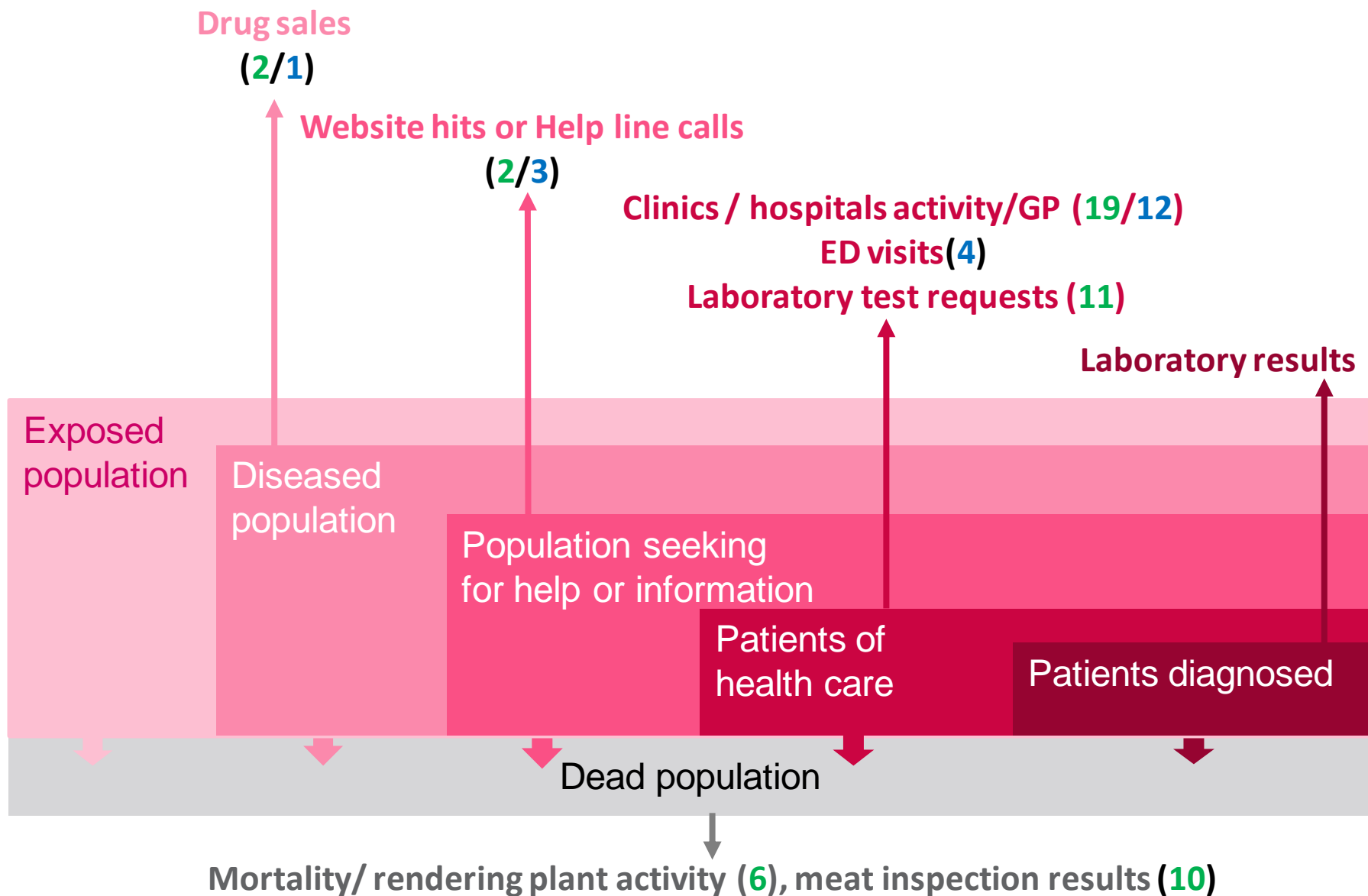
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- **General health surveillance is the main objective of SyS systems for 100% and 70% of systems**
- **Lack of coding systems: 52% of human and animal health SyS do not use any**
- **Common epidemiological and statistical issues**
- **Similar data sources**

Animal health SyS systems / Human health SyS systems / Both



# Diagnosis process



Animal health SyS systems / Human health SyS systems



# Synergies

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- **Why?**

- Similarities between SyS systems in human and animal health
- Common diseases (zoonoses)
- Early detection (sentinel animals)
- Help for statistical alarm interpretation
- Complementarity for health event impact assessment

- **How?**

- Increasing awareness of animal health among public health stakeholders
- Create networks of people involved in SyS in both sides
- Exchange of knowledge (common meetings, Triple-S guidelines)
- Sharing outputs of SyS systems

**→ Triple-S was a first step that needs to be emphasized**



# Thank you for your attention



<http://www.syndromicsurveillance.eu/>

**Dupuy, C. et al. 2013. Inventory of veterinary syndromic surveillance initiatives in Europe (Triple-S project): Current situation and perspectives. Preventive Veterinary Medicine 111, 220-229.**

