



An exploratory study on barriers and opportunities in food-borne disease surveillance from a One Health approach within EU countries – preliminary results

Filippitzi M.E.^{1*}, Humboldt-Dachroeden S.², Boseret G.¹, Lailier R.³, Nordeng Z.⁴, Jore S.⁴, Ågren E.⁵

¹ Veterinary Epidemiology Service, Federal Research Institute Sciensano, Brussels (Belgium); ²Department of Social Science and Business, Roskilde University, Roskilde (Denmark); ³ French Agency for Food, Environmental and Occupational Health and Safety (ANSES), Laboratory of food safety de Maisons-Alfort, Paris (France); ⁴ Department of Zoonotic, Food- and Waterborne Infections, Norwegian Public Health Institute, Oslo (Norway); ⁵ Department of Disease Control and Epidemiology, National Veterinary Institute, Uppsala (Sweden)

Aim: identify barriers that challenge the efficiency of the food-borne zoonoses surveillance systems in Belgium, Sweden, France and Norway, and also to identify opportunities for improvement of these surveillance systems.

METHODS

Interviews of 5 professionals with specified profiles from public health, animal health and food safety sector per country | A thematic analysis of information collected through the interviews

RESULTS

- The barriers and opportunities identified in the analysis were grouped in 8 themes:

Data governance | Set-up and operations of the surveillance system | Coordination | Communication | Regulations (political legislations and procedures) | Industry's challenges | Funding | Training and education

- The most important barriers were indicated for the theme: **Data governance**. Indicatively, the information for this theme for Belgium and Sweden will be presented below (Figure 1, 2).

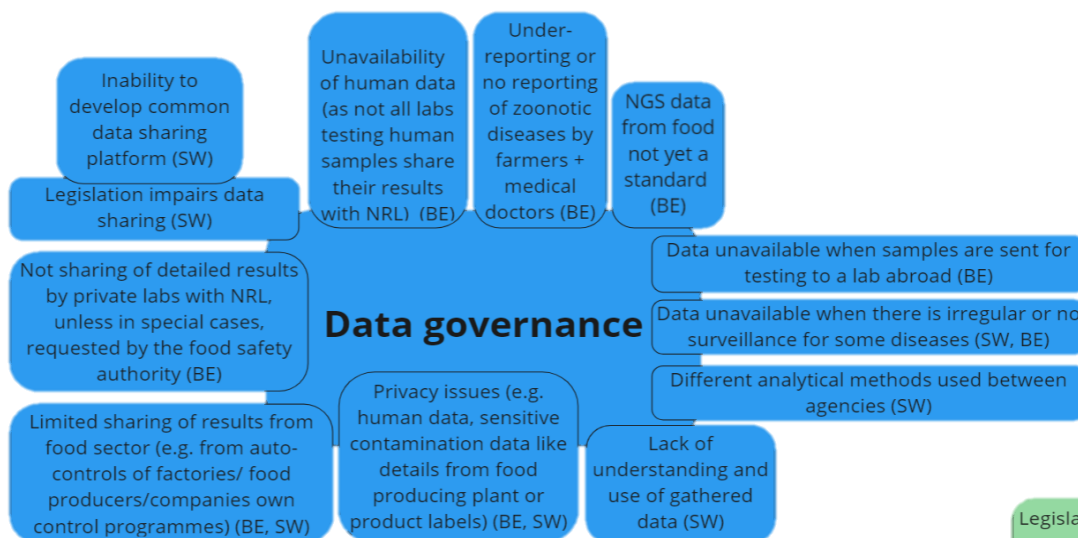
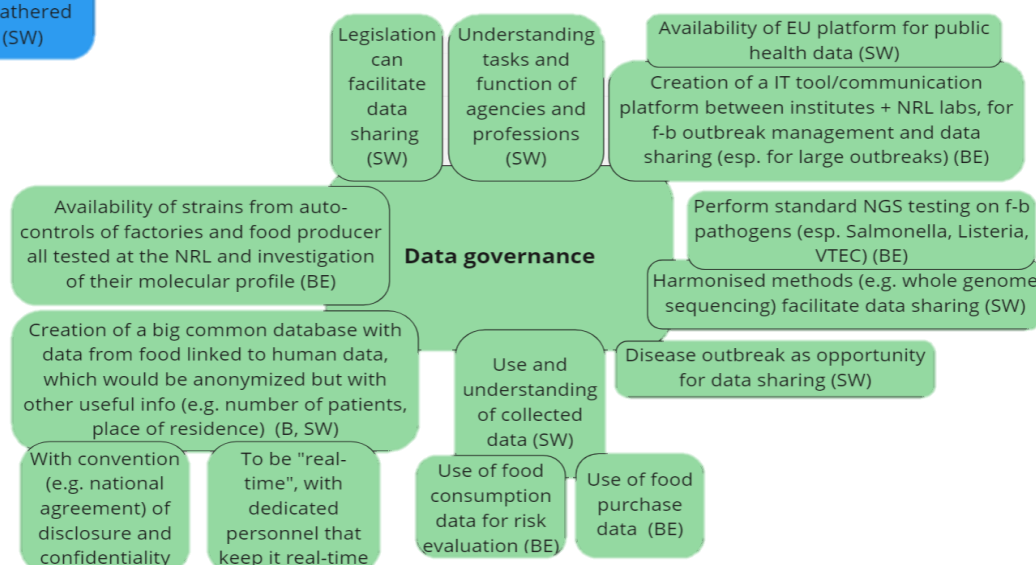


Figure 1 (left). Barriers in food-borne disease surveillance from a One Health approach related to data governance, identified in Belgium and Sweden.

BE: Belgium, SW: Sweden, NRL: National Reference Lab, NGS: next generation sequencing

Figure 2 (right). Opportunities for food-borne disease surveillance from a One Health approach related to data governance, identified in Belgium and Sweden.

BE: Belgium, SW: Sweden, NRL: National Reference Lab, NGS: next generation sequencing, EU: European Union, f-b: food-borne, VTEC: Verocytotoxin-producing *Escherichia coli*



PERSPECTIVES – NEXT STEPS

The first results show that there is room for improvement in food-borne disease surveillance of microbiological pathogens towards a One Health approach, especially regarding data governance and the set up and operations of surveillance systems.

An analysis of the collected information is currently performed per identified theme, taking into account the particularities of each country (Belgium, Sweden, France, Norway).

The results can be used when revising existing systems, or when developing new systems for food-borne disease surveillance from a One Health perspective.