



National Public Health Centre
under the Ministry of Health

INTERSECTORIAL COOPERATION DURING EPIDEMIOLOGICAL INVESTIGATION OF FOODBORNE DISEASES

Ginreta Valinčiūtė

Advisor

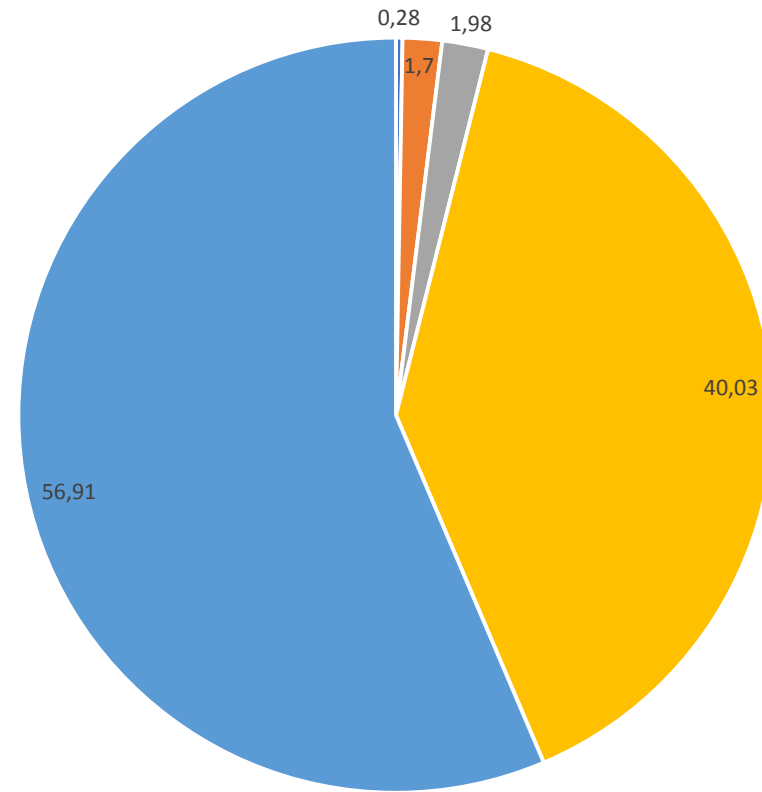
National Public Health Centre under the Ministry of Health

Department of Communicable Diseases Management

Epidemiological situation of foodborne diseases in Lithuania and Europe

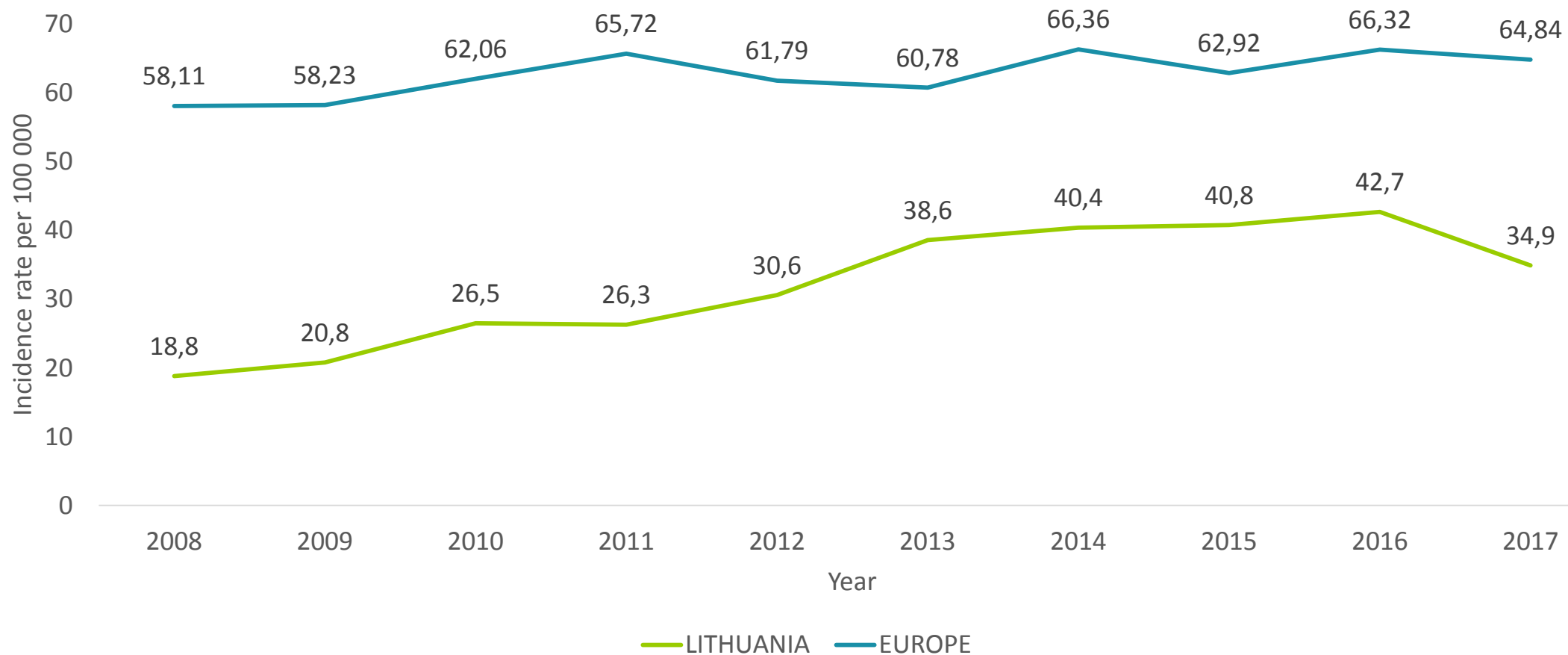


Gastrointestinal infections at common structure of communicable diseases (2018)

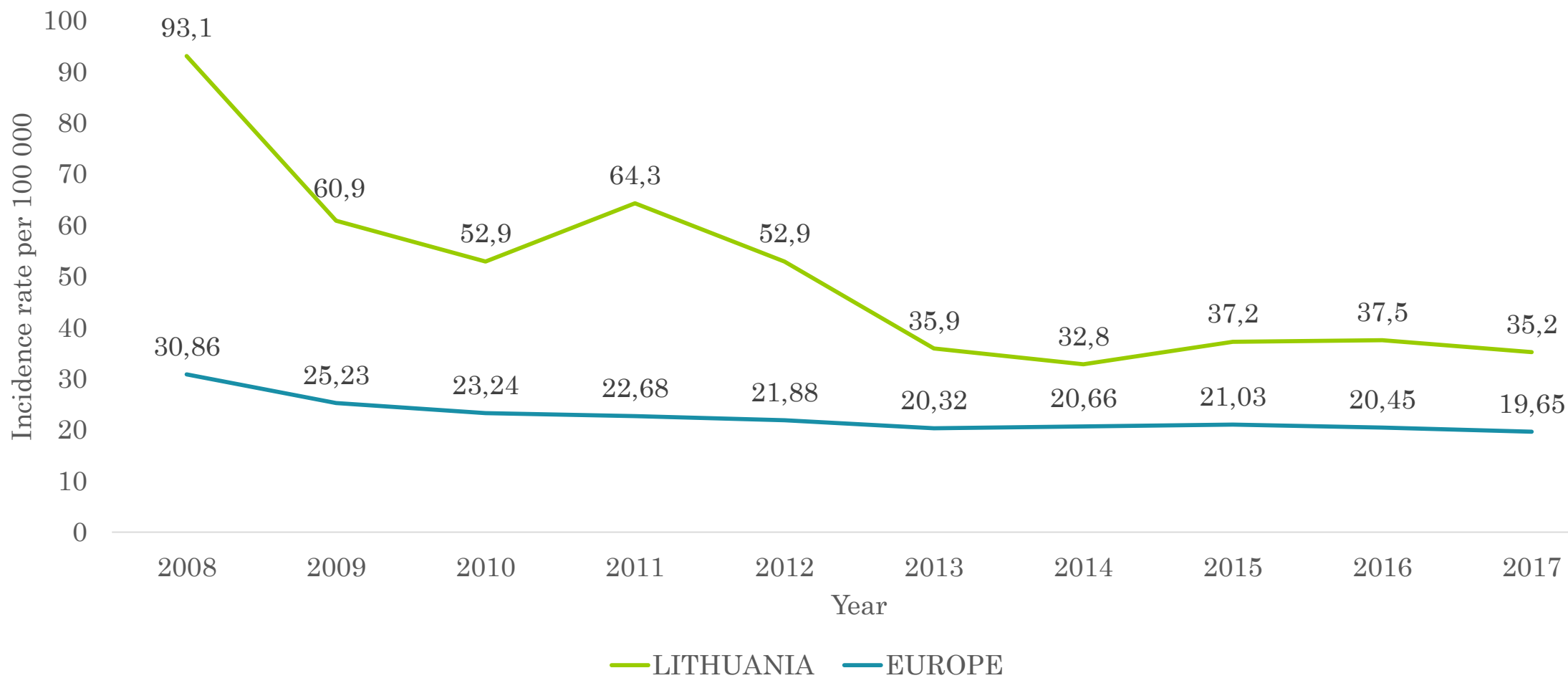


■ Yersiniosis ■ Salmonellosis ■ Campylobacteriosis ■ Other gastrointestinal infections ■ Other diseases

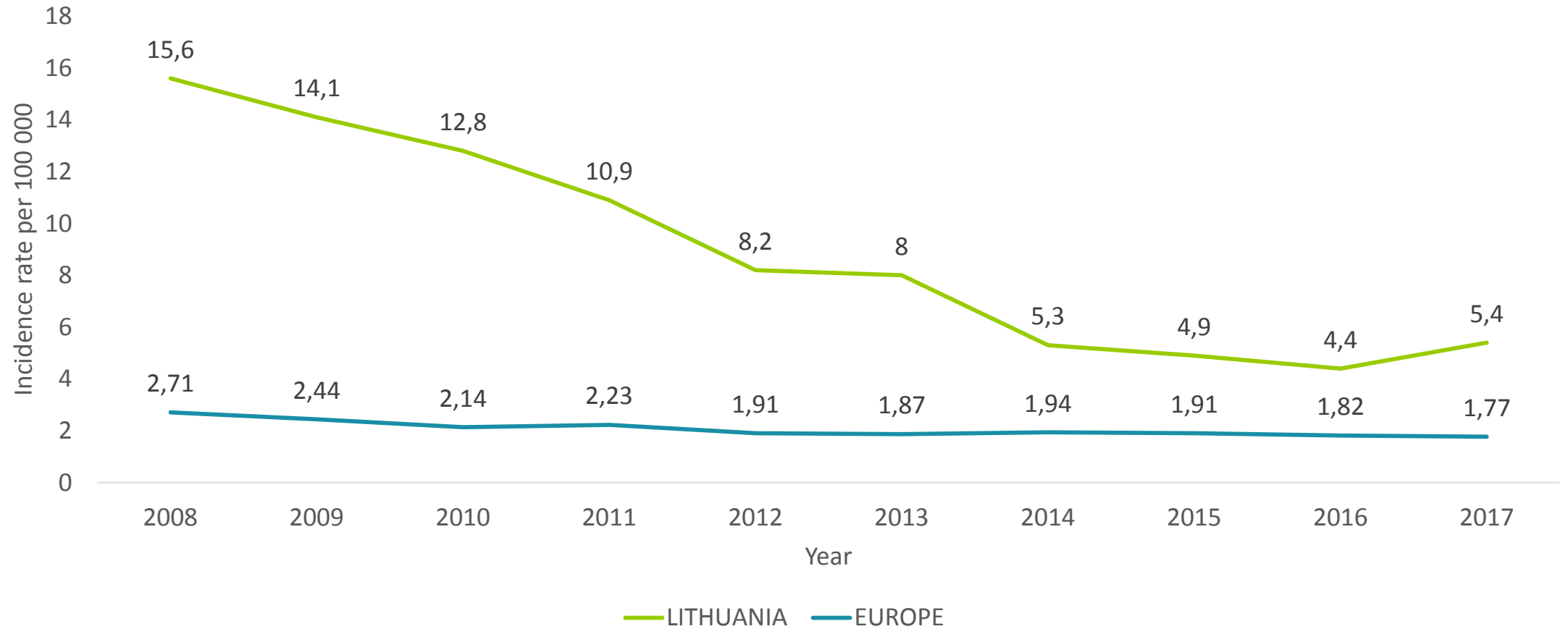
Incidence rate of Campylobacteriosis in Lithuania and Europe 2008-2017



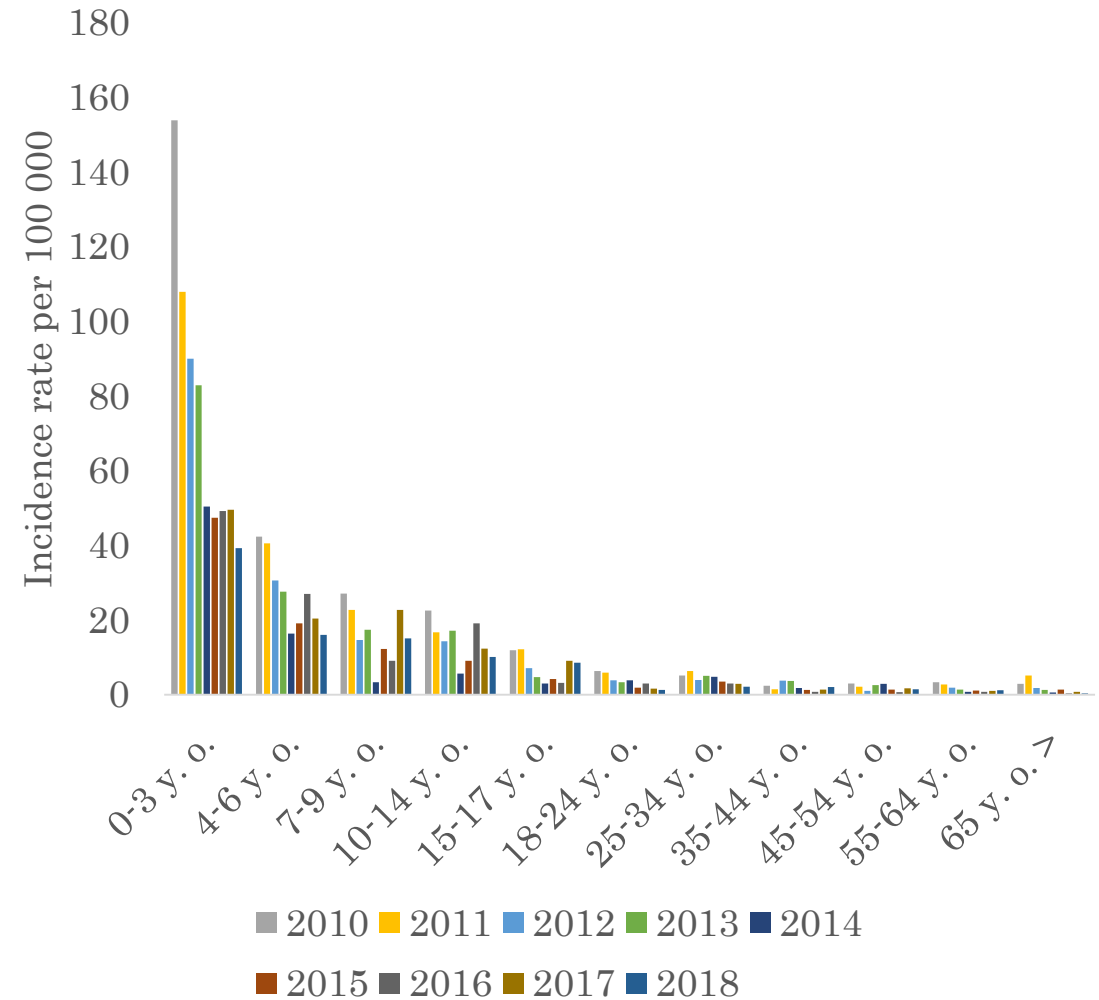
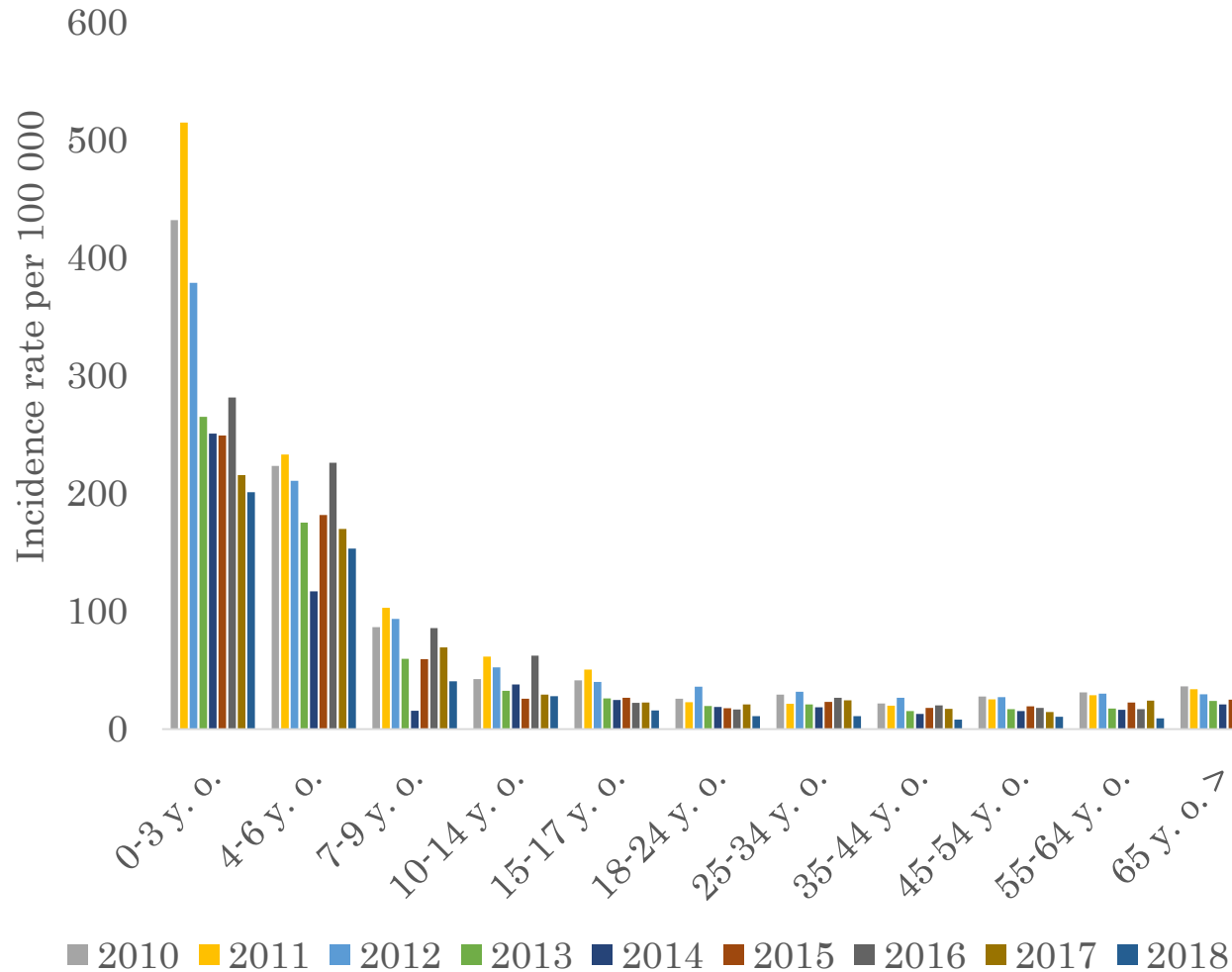
Incidence rate of Salmonellosis in Lithuania and Europe 2008-2017



Incidence rate of Yersiniosis in Lithuania and Europe 2008-2017



Incidence rate of Salmonellosis and Yersiniosis in Lithuania by age (2010-2018)



Assessment of epidemiological patterns and risk factors of yersiniosis in the case-control study in Vilnius County (2016) (1)

Survey tasks. To assess relevance of yersiniosis in a group of intestinal tract infections transmissible through food and water in Lithuania and the European Union; to identify epidemiologic patterns of yersiniosis in Lithuania and Vilnius County in a period of 2005-2015; to assess risk factors and their prevalence in Vilnius County in the period concerned.

Assessment of epidemiological patterns and risk factors of yersiniosis in the case-control study in Vilnius County (2016) (2)

Food products	OR	OR _{adj}	90 percent C.I.	p
Pork	3,42	3,65	1,01; 13,19	0,10
Vegetables salad	0,72	0,54	0,21; 1,42	0,29
Fresh fish	9,83	5,57	0,61; 50,83	0,20
Seafood	2,74	2,03	0,66; 6,29	0,30
Baked eggs	0,32	0,32	0,10; 1,02	0,11
Milk and milk products	0,49	0,38	0,14; 1,02	0,11

Epidemiological investigation of foodborne diseases



Surveillance of food borne diseases

Lithuania has case definitions for each of the notifiable food borne diseases and a case-based system of epidemiological surveillance of food borne communicable diseases. List of the registered gastrointestinal infectious diseases:

- typhoid
- salmonellosis
- shigelosis
- escherichiosis
- enterohemorrhagic E. coli
- campylobacteriosis
- yersiniosis
- other bacterial infections
- rotavirus infection
- norovirus infection
- other virus infections
- food poisoning (caused by Staphylococcus, botulism, other).

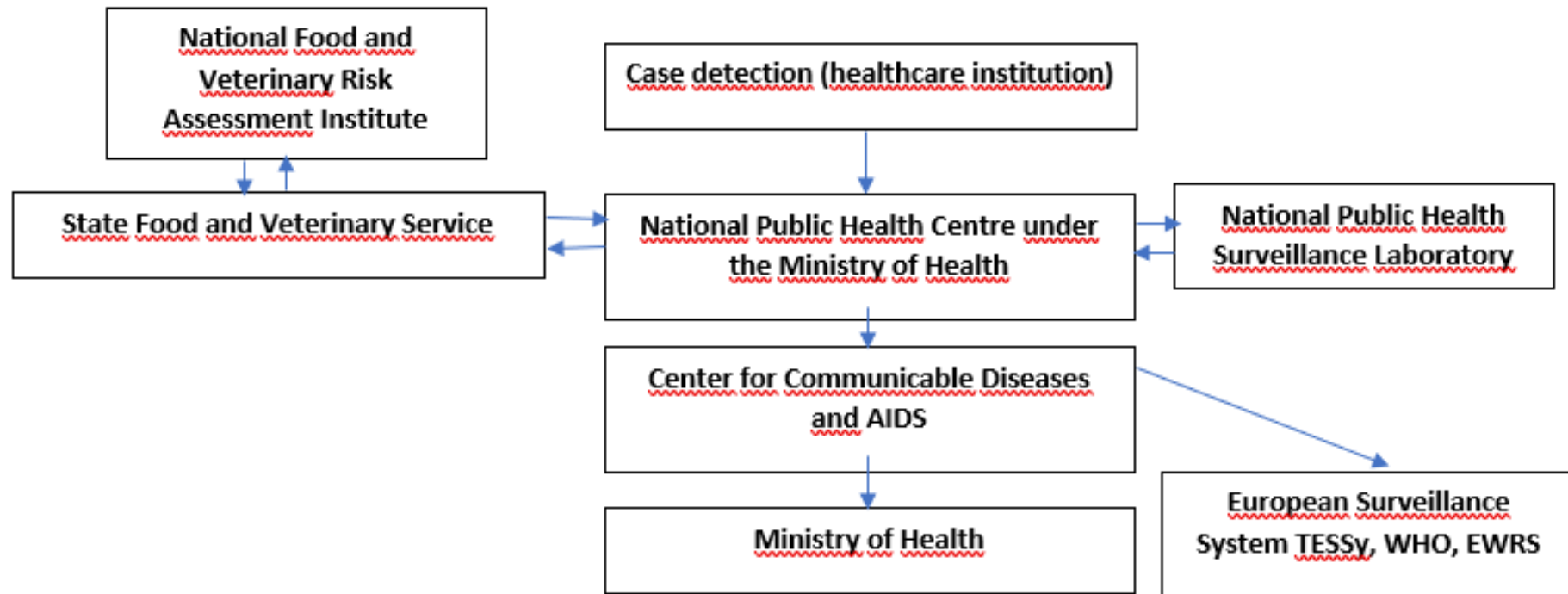
Epidemiological investigation is performed while each case of gastrointestinal infectious diseases listed below are registered:

- enterohemorrhagic E. coli
- botulism
- typhoid
- shigelosis

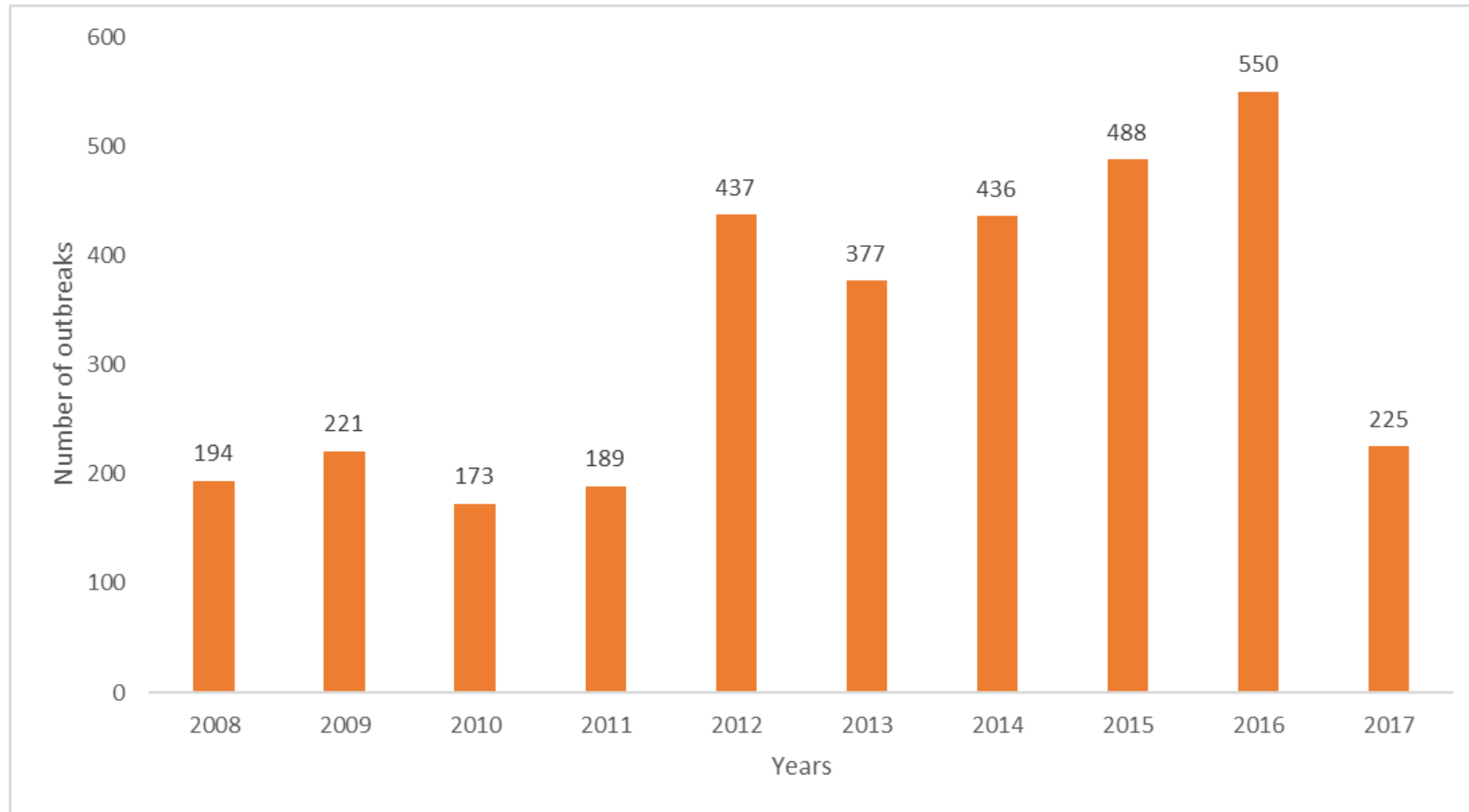
In other cases epidemiological investigation is performed when:

- case is related with an outbreak;
- case is epidemiologically important;
- case is from educational, social care, healthcare institutions;
- etc.

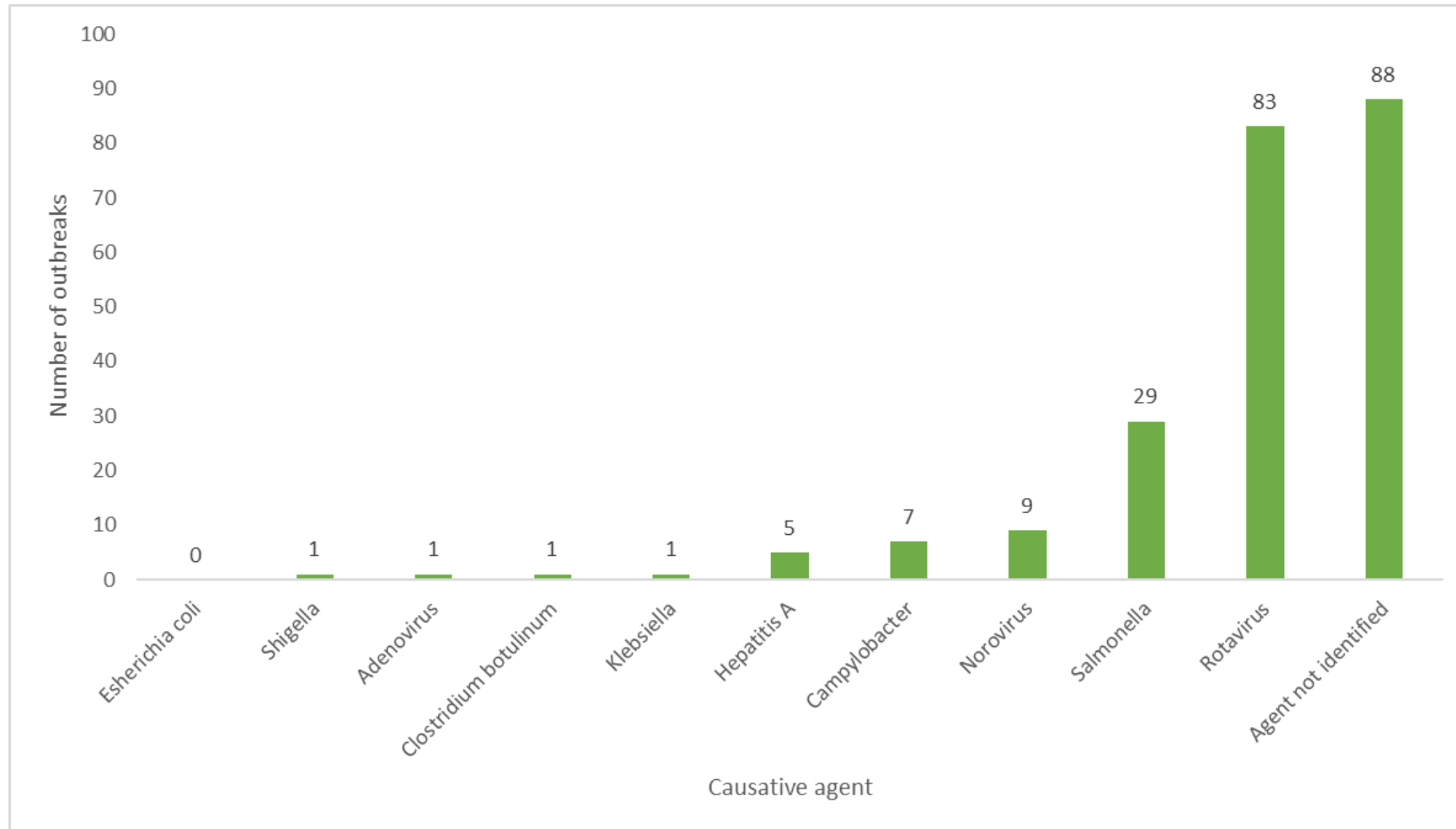
Flow chart of data exchange among health professionals at territorial, regional and national level



Gastrointestinal diseases outbreaks in Lithuania 2008-2017



Causative agents of gastrointestinal infections outbreaks in 2017

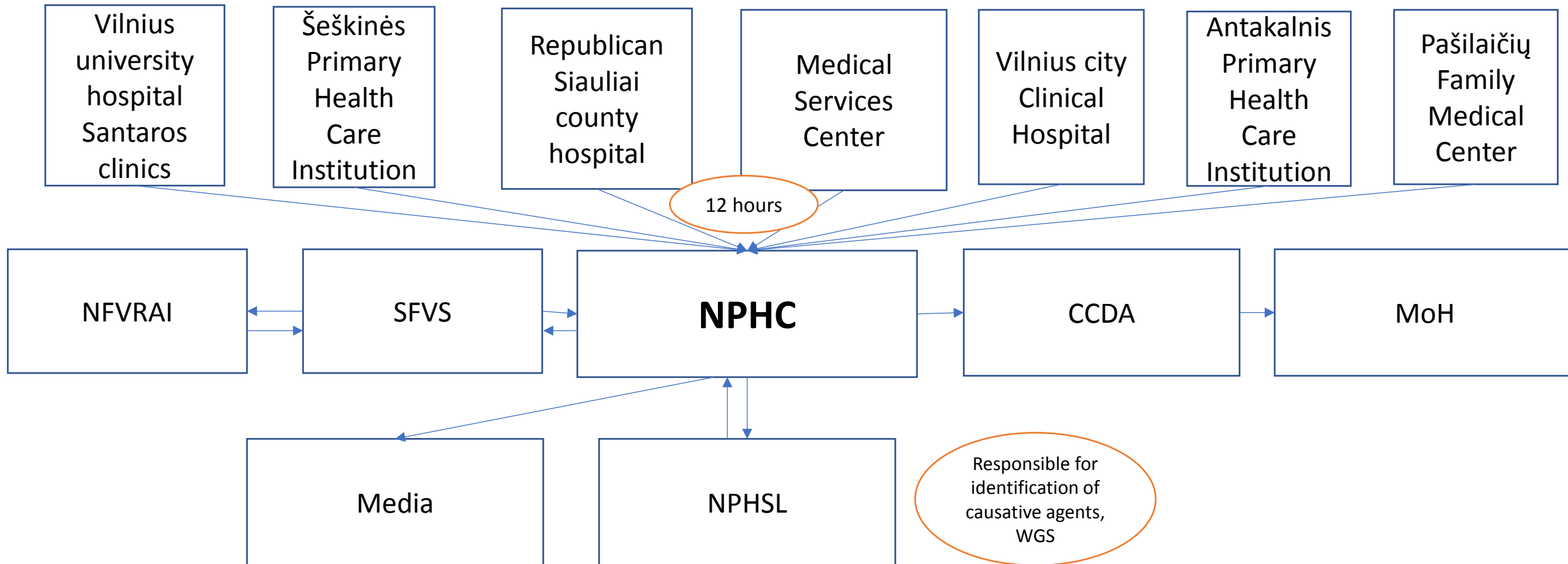


Example of outbreak investigation (1)

- In Vilnius city an outbreak of salmonellosis was registered on June 2016 .
- Cases were from five children's preschool institutions in Vilnius, all the institutions are supplied by one food business operator.
- 20 individuals was in accordance with the approved *Salmonella* case definition. Causative agent of an outbreak was *Salmonella Enteritidis*.
- 17 children were 2 years old, also registered 1 year, 4 years and 5 years old children.
- The cause of the outbreak was confirmed by descriptive epidemiological and analytical methods. A statistically reliable direct relationship with the disease was found in two dishes: pork chop (RR = 8.13, 95 percent CI [1.14-58.18], p = 0.002) and barley porridge with butter (RR = 6.38, 95 percent CI [1, 57-26.01], p <0.001).

Example of outbreak investigation (2)

Intersectorial cooperation during epidemiological investigation of outbreak investigation



WHO IHR Joint External Evaluation

JOINT EXTERNAL EVALUATION
OF IHR CORE CAPACITIES
of the
REPUBLIC OF LITHUANIA

Mission report:
19–23 November 2018



Recommendations for priority actions (Food safety)

- Maintain the high level of food safety in Lithuania and transparency of the control by continuous education of staff, adequate financial resources and international cooperation.
- Improve self-control procedures and make the private food and feed producing sectors more accountable for the safety and control of their products.
- Improve multi-sectoral collaboration through table-top exercises.

Surveillance systems in place for the detection and monitoring of foodborne diseases and food contamination

- Inter-sectoral collaboration between the Ministry of Health and the State Food and Veterinary Service (SFVS).
- Availability of legislation and resources for detection and response of food borne emergencies.
- Well-established accredited national reference laboratories.
- State Food and Veterinary Service (SFVS) ensures a unified food safety control.
- **Effective multi-sectoral collaboration to control food borne emergencies.**

Mechanisms are established and functioning for the response and management of food safety emergencies

- Effective official control of food safety established and sustained.
- 52 regional offices of the State Food and Veterinary Service (SFVS) oversee 140 000 food business operators.
- In 2017, SFVS performed 47 000 inspections, investigated 4000 consumer complaints, provided
- 4000 consultations, performed 1 million laboratory analyses and investigated 90 000 EU import / transit cases.
- One single competent authority (SFVS) responsible for food and feed safety in Lithuania.
- Standard Operating Procedures for official control of the whole food chain are implemented.
- **Effective outbreak management for low-impact foodborne illness.**

Thank you for your attention 😊

