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## SUPPLEMENTARY MATERIAL

### **A comprehensive review of foodborne disease burden associated with protein foods: a 13-year evaluation of incidence and outbreaks in high-income countries**

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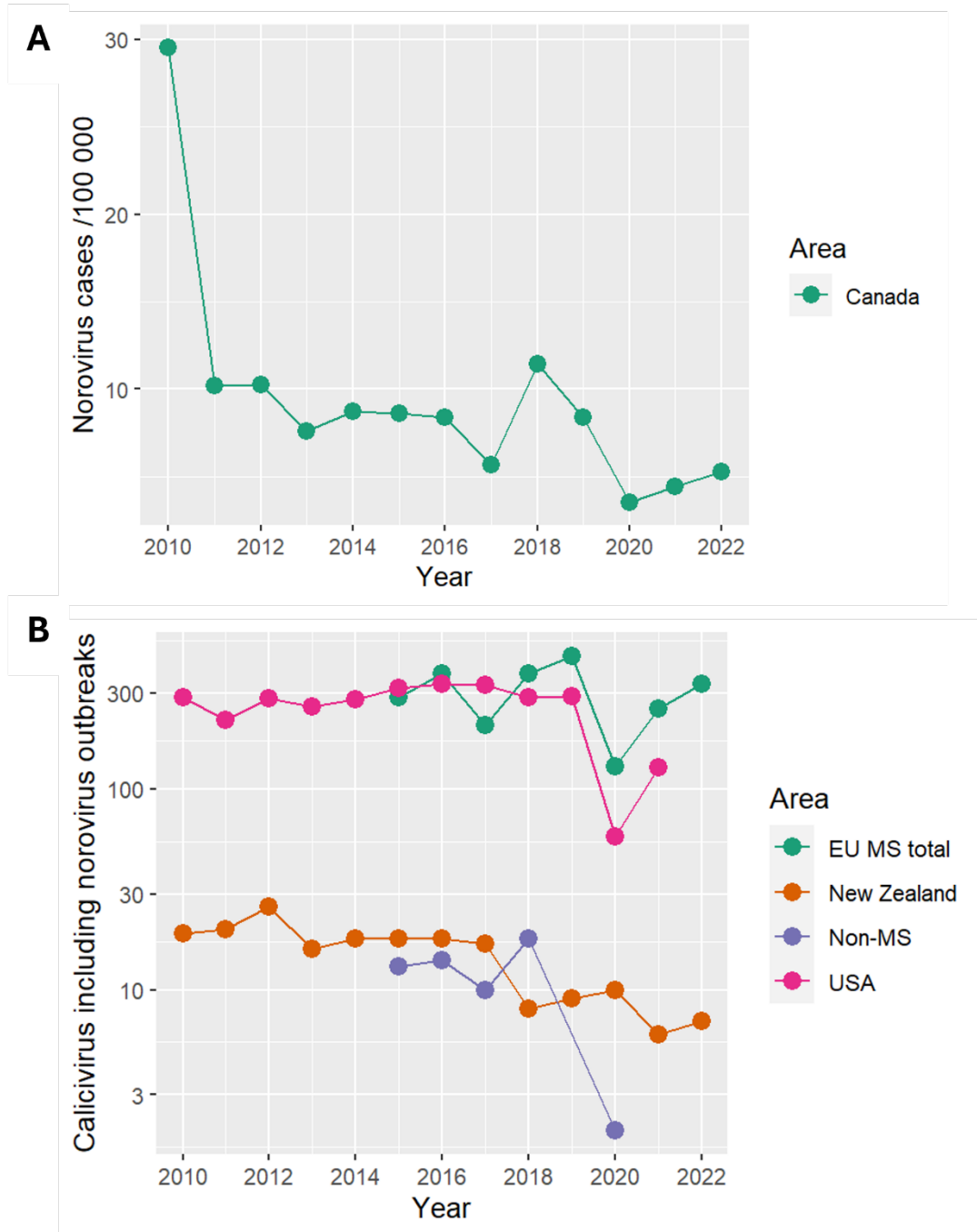
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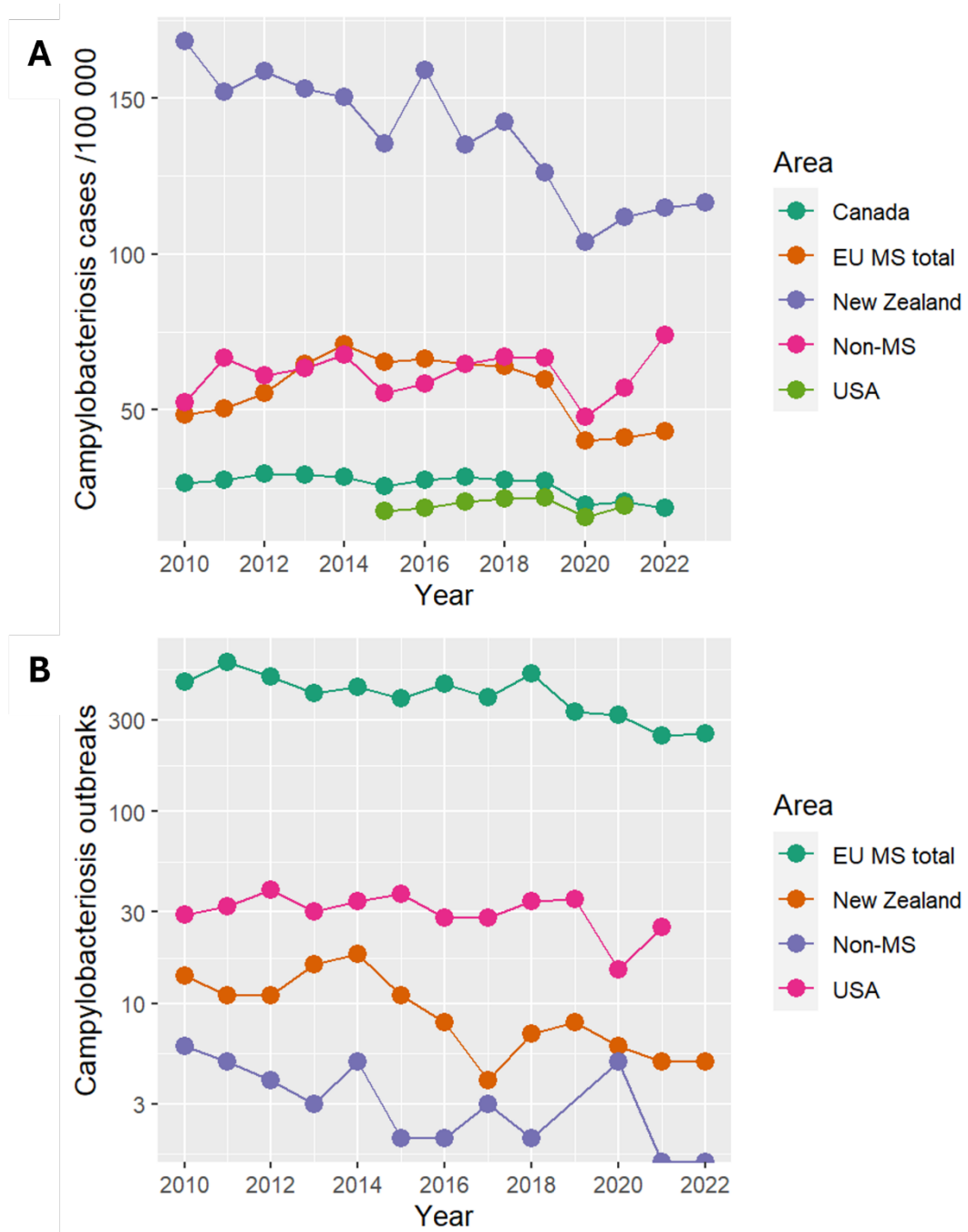
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**Key words:** meta-analysis, foodborne pathogens, microbial occurrence, outbreaks, animal-source foods.

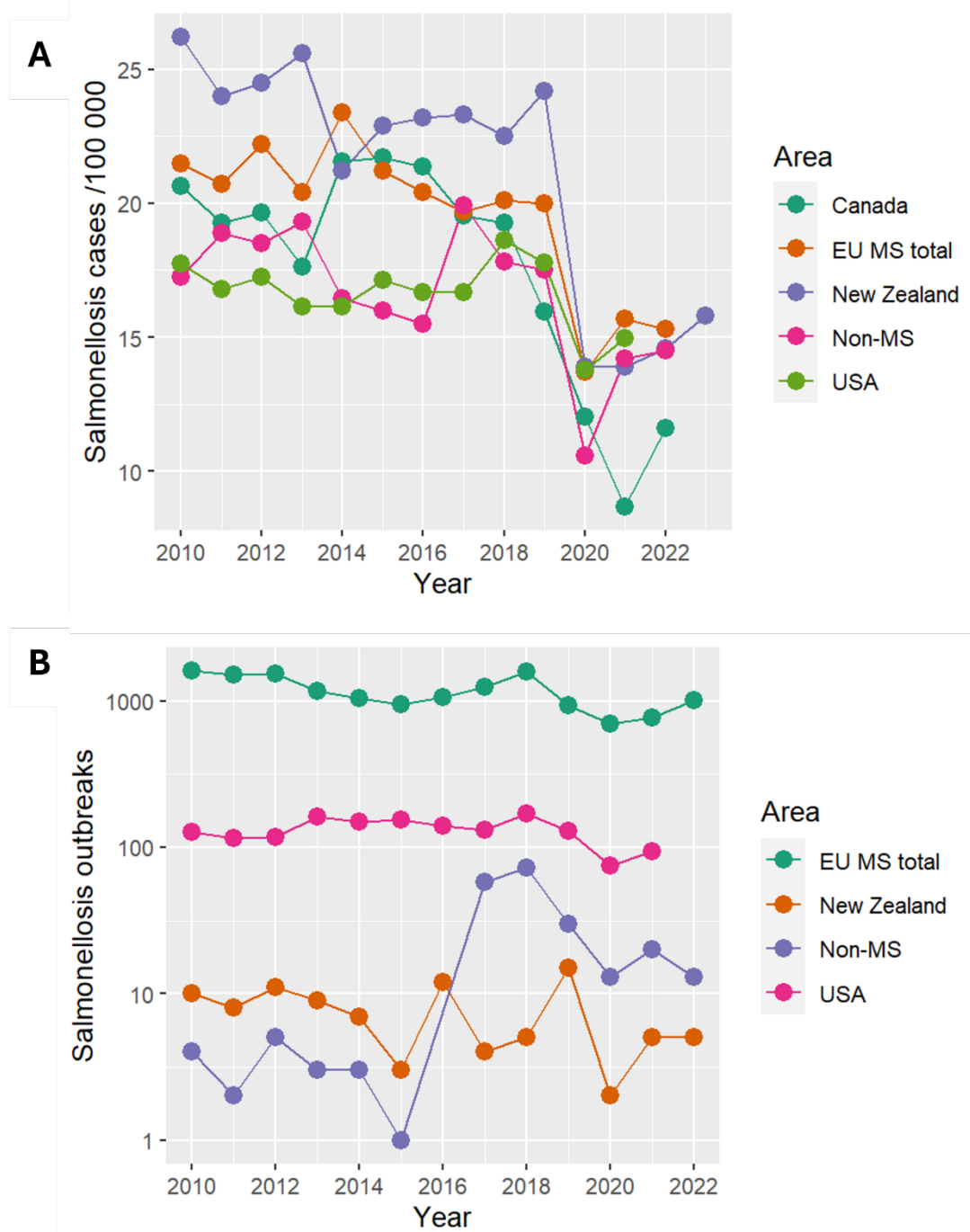
Annual incidence rates and total outbreaks



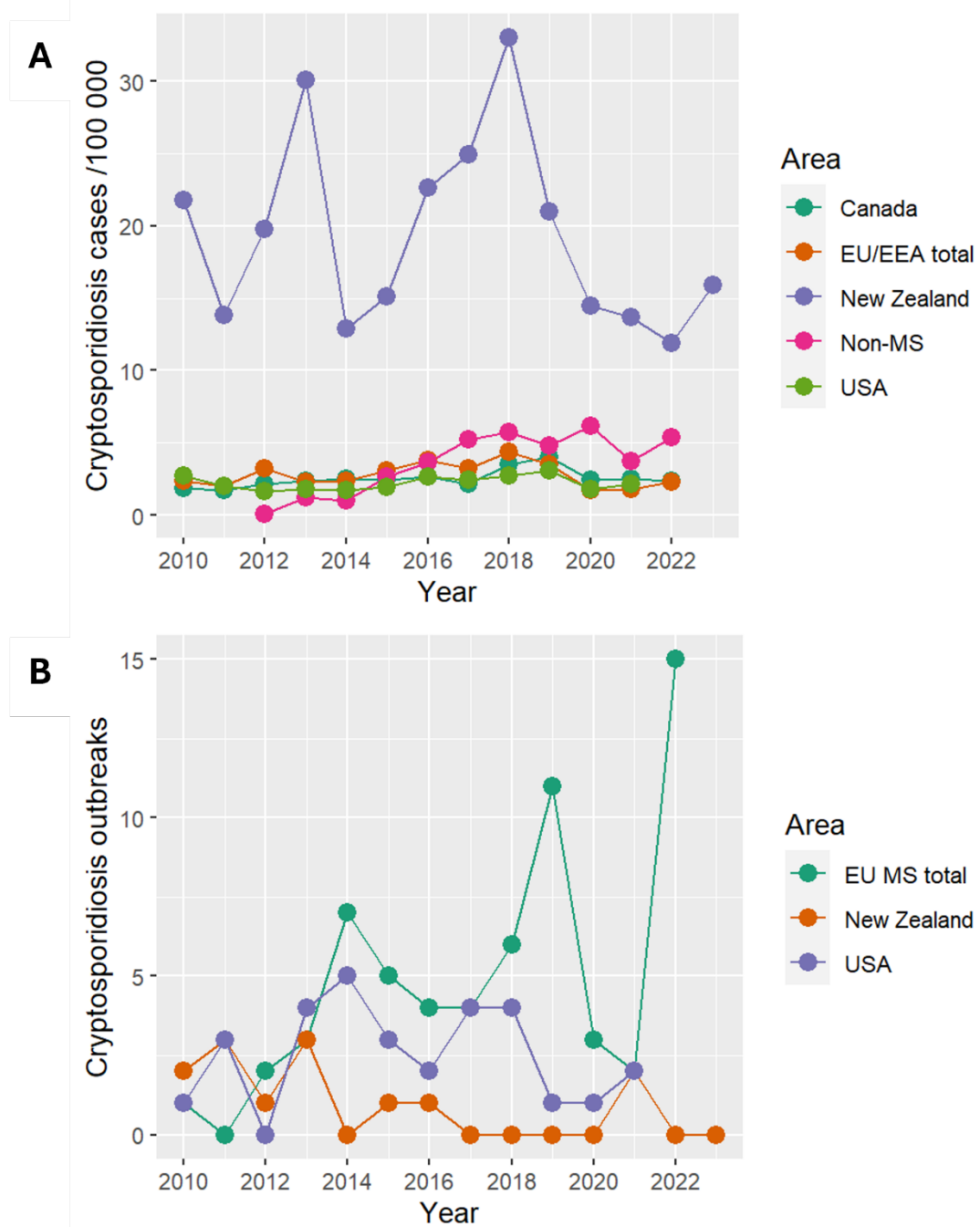
**Supplementary Figure 1. Evolution of incidence rates of norovirus cases (A) and total calicivirus outbreaks including norovirus (B) by region/country. Non-MS includes Albania, Bosnia and Herzegovina, Iceland, Liechtenstein, Montenegro, Norway, Republic of Macedonia, Serbia, Switzerland and United Kingdom (since 2020).**



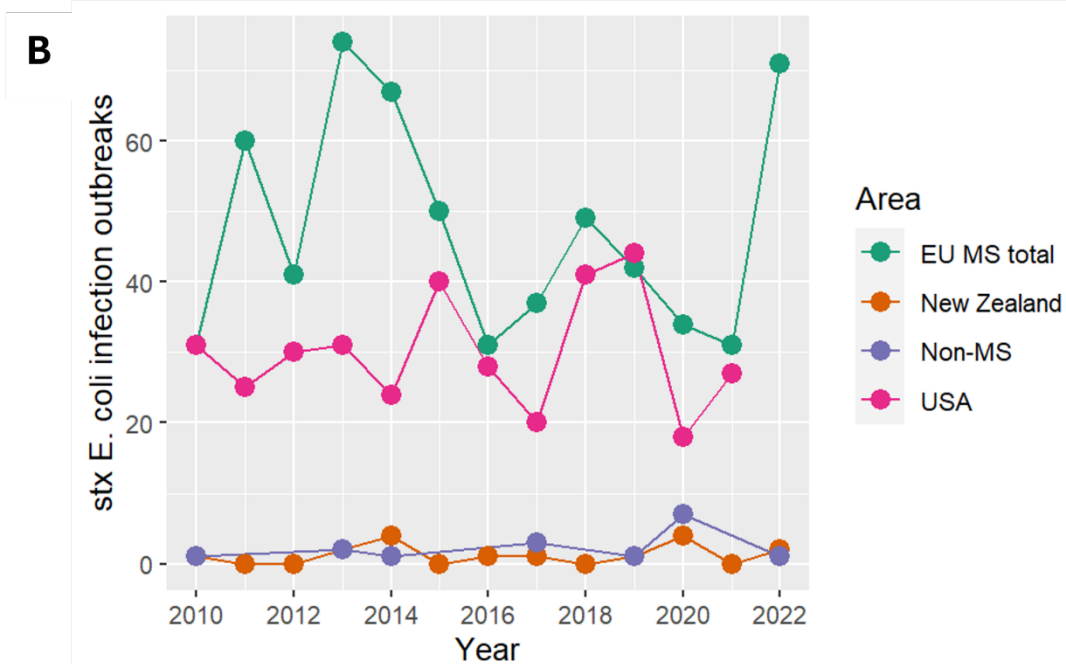
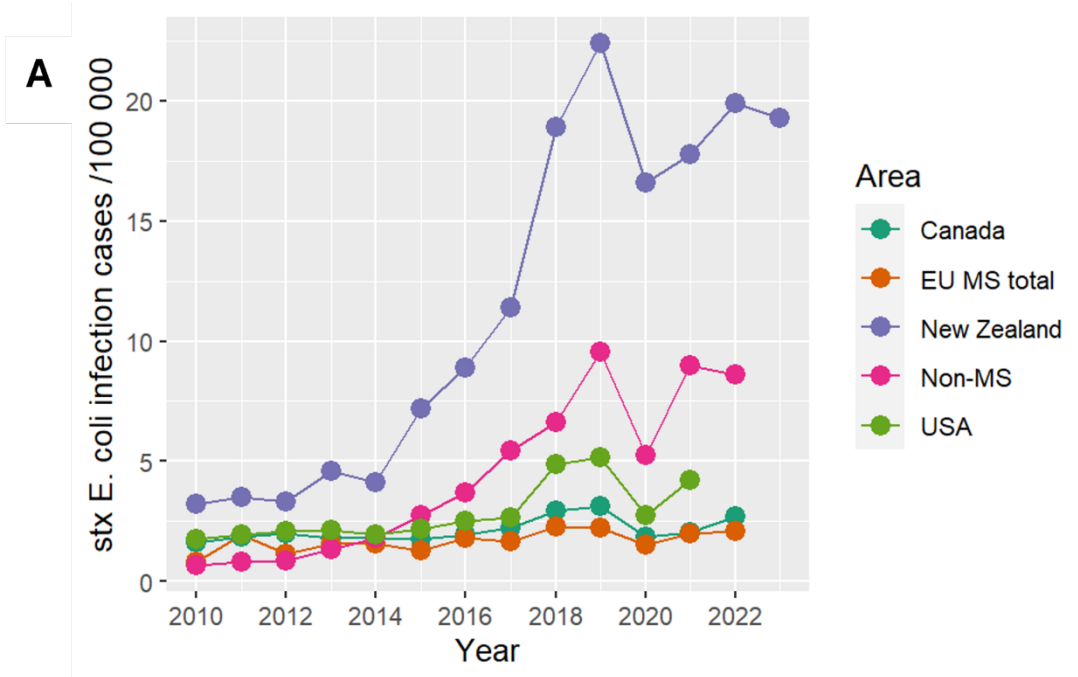
**Supplementary Figure 2. Evolution of incidence rates of campylobacteriosis (A) and total campylobacteriosis outbreaks (B) by region/country. Non-MS includes Albania, Bosnia and Herzegovina, Iceland, Liechtenstein, Montenegro, Norway, Republic of Macedonia, Serbia, Switzerland and United Kingdom (since 2020).**



**Supplementary Figure 3. Evolution of incidence rates of salmonellosis (A) and total salmonellosis outbreaks (B) by region/country. Non-MS includes Albania, Bosnia and Herzegovina, Iceland, Liechtenstein, Montenegro, Norway, Republic of Macedonia, Serbia, Switzerland and United Kingdom (since 2020).**

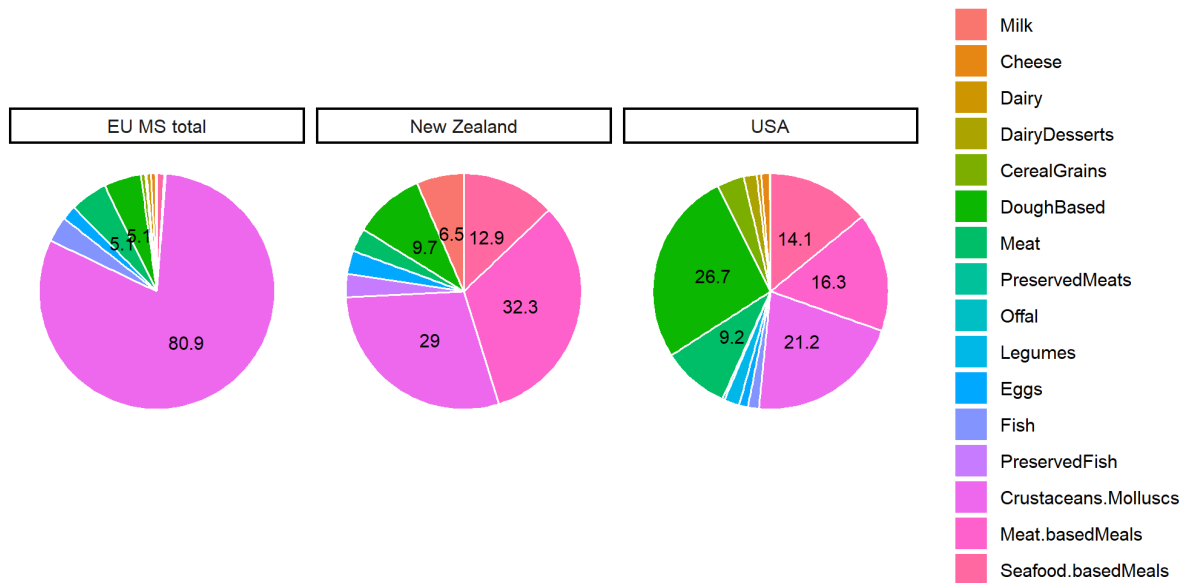


**Supplementary Figure 4. Evolution of incidence rates of cryptosporidiosis (A) and total cryptosporidiosis outbreaks (B) by region/country. Non-MS includes Albania, Bosnia and Herzegovina, Iceland, Liechtenstein, Montenegro, Norway, Republic of Macedonia, Serbia, Switzerland and United Kingdom (since 2020).**

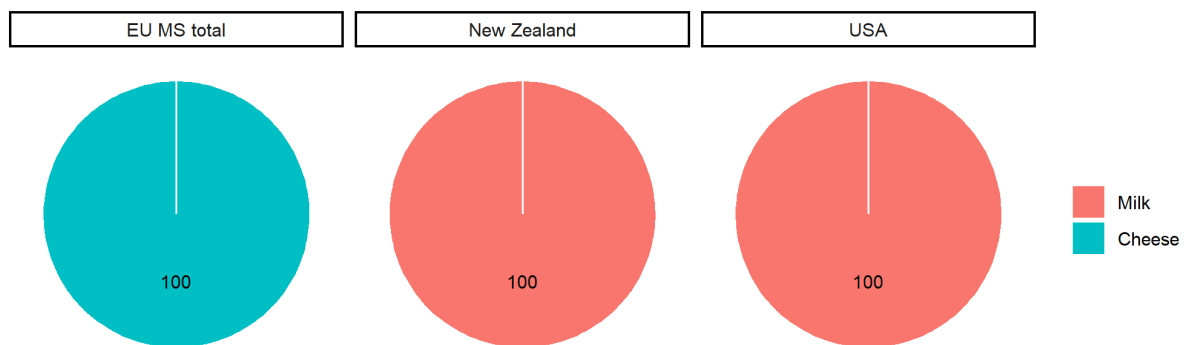


**Supplementary Figure 5. Evolution of incidence rates of Shiga toxin-producing Escherichia coli (STEC) infection (A) and total outbreaks (B) by region/country. Non-MS includes Albania, Bosnia and Herzegovina, Iceland, Liechtenstein, Montenegro, Norway, Republic of Macedonia, Serbia, Switzerland and United Kingdom (since 2020).**

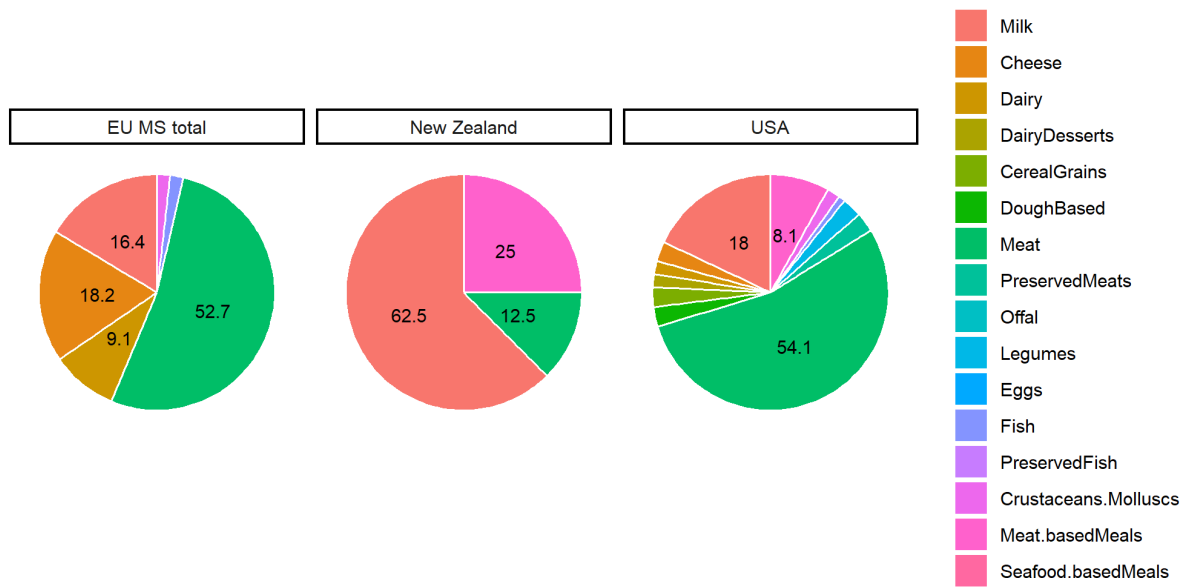
*Contribution of protein foods to total strong evidence outbreaks, expressed by region/country*



**Supplementary Figure 6. Contribution (%) of protein foods to the total strong-evidence outbreaks of calicivirus and norovirus disease occurred since 2010, by available country/region (in EU MS countries, N = 509; in New Zealand, N = 31; in the USA = 326).**

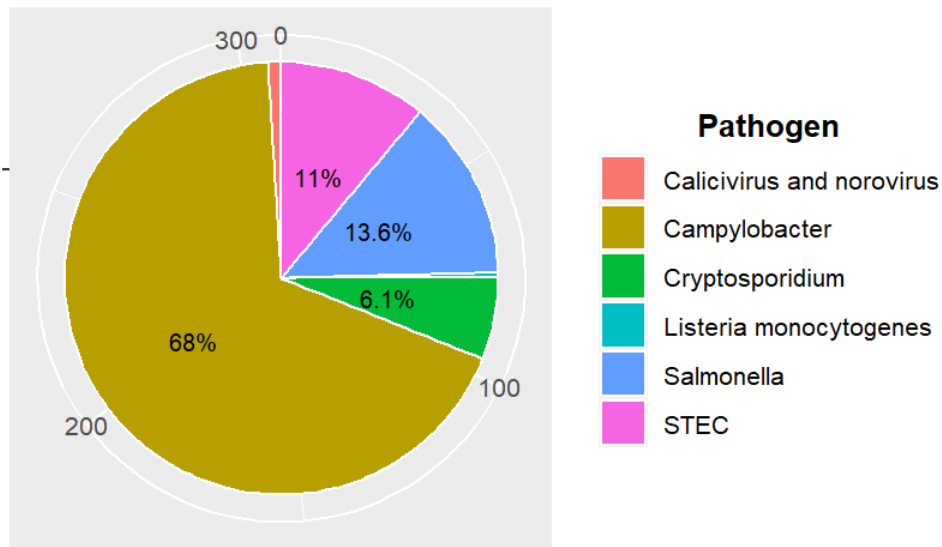


**Supplementary Figure 7. Contribution (%) of protein foods to the total strong-evidence outbreaks of cryptosporidiosis occurred since 2010, by available country/region (in EU MS countries, N = 2; in New Zealand, N = 7; in the USA = 12).**



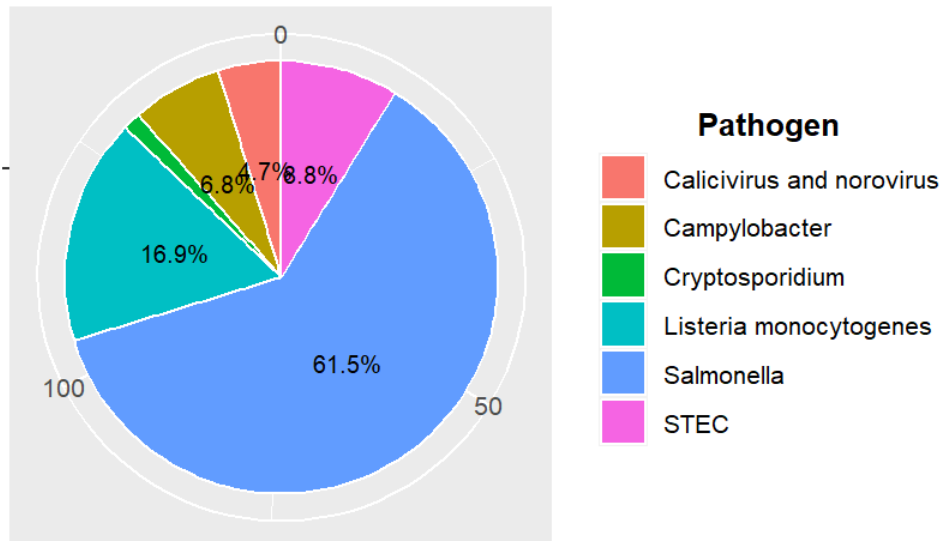
**Supplementary Figure 8. Contribution (%) of protein foods to the total strong-evidence outbreaks of STEC infections occurred since 2010, by available country/region (in EU MS countries, N = 55; in New Zealand, N = 8; in the USA = 111).**

Share of the selected pathogens as causative agents of the total 13-year strong-evidence outbreaks  
**Milk (309 outbreaks)**



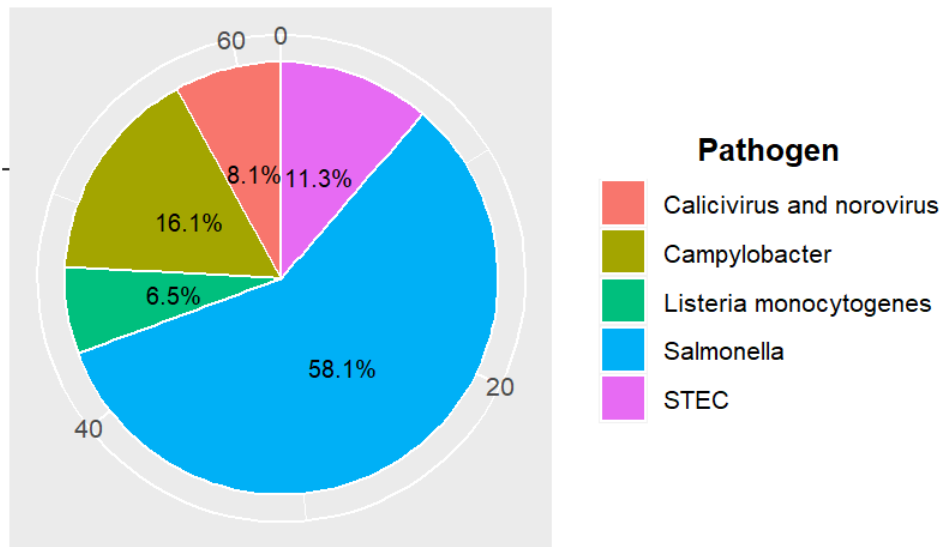
**Supplementary Figure 9. Share (%) of pathogens as causative agents of the 13-year strong-evidence outbreaks in Europe, North America and New Zealand attributed to milk.**

**Cheese (148 outbreaks)**



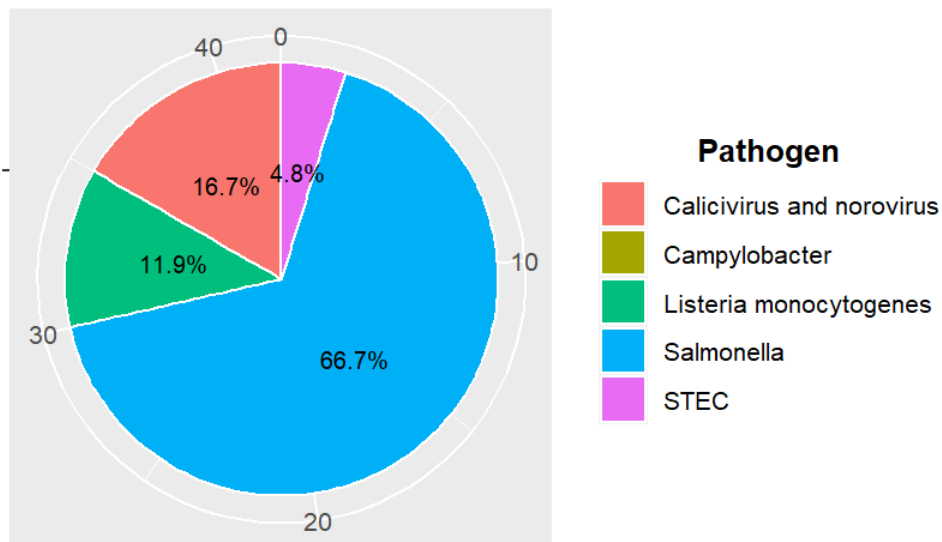
**Supplementary Figure 10. Share (%) of pathogens as causative agents of the 13-year strong-evidence outbreaks in Europe, North America and New Zealand attributed to cheese.**

Non-specific dairy (62 outbreaks)



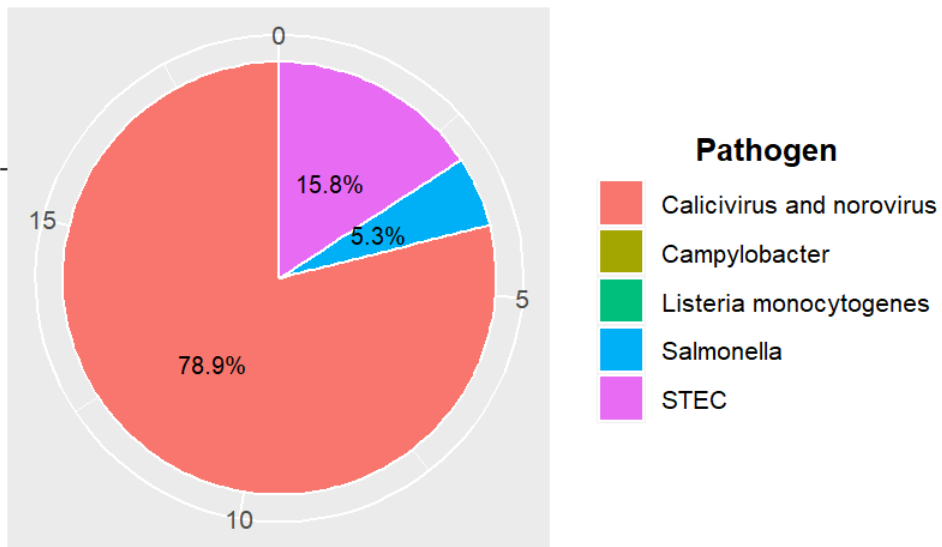
**Supplementary Figure 11. Share (%) of pathogens as causative agents of the 13-year strong-evidence outbreaks in Europe, North America and New Zealand attributed to dairy (non-specific).**

Dairy desserts (42 outbreaks)



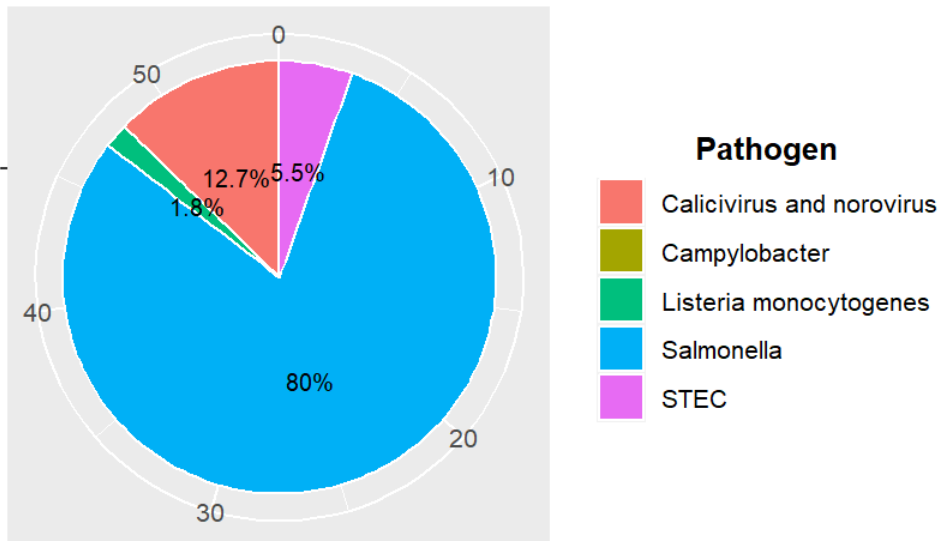
**Supplementary Figure 12. Share (%) of pathogens as causative agents of the 13-year strong-evidence outbreaks in Europe, North America and New Zealand attributed to dairy-based desserts.**

### Cereal Grains (19 outbreaks)



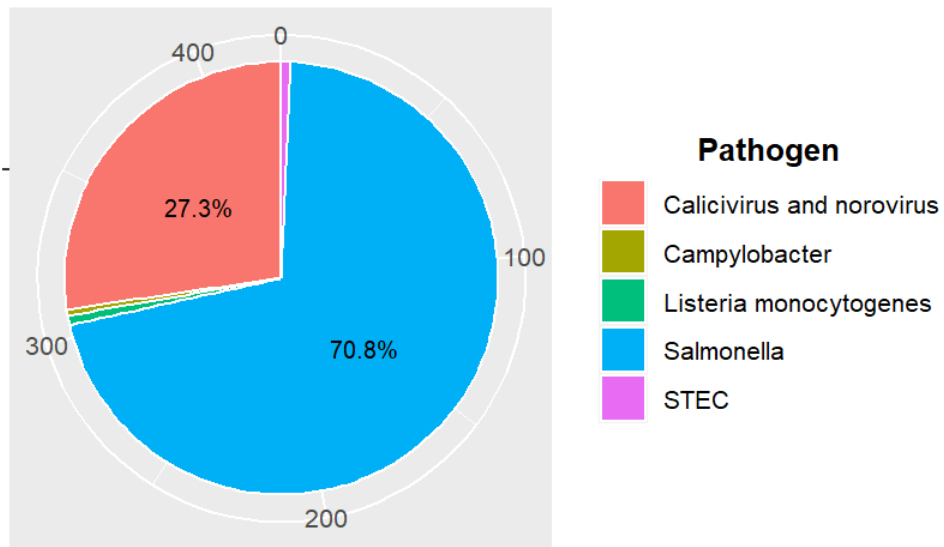
Supplementary Figure 13. Share (%) of pathogens as causative agents of the 13-year strong-evidence outbreaks in Europe, North America and New Zealand attributed to cereal grains.

### Legumes (55 outbreaks)



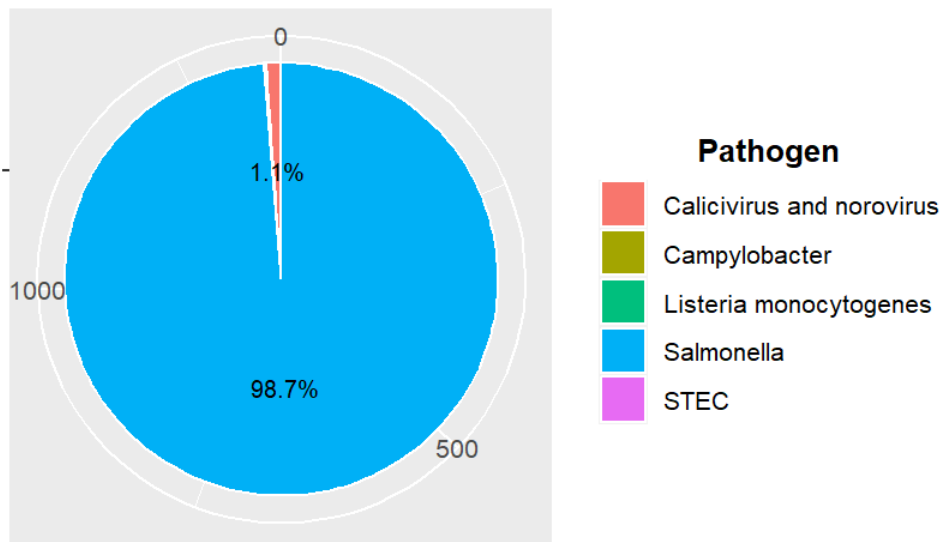
Supplementary Figure 14. Share (%) of pathogens as causative agents of the 13-year strong-evidence outbreaks in Europe, North America and New Zealand attributed to legumes.

### Dough-based derivatives (425 outbreaks)



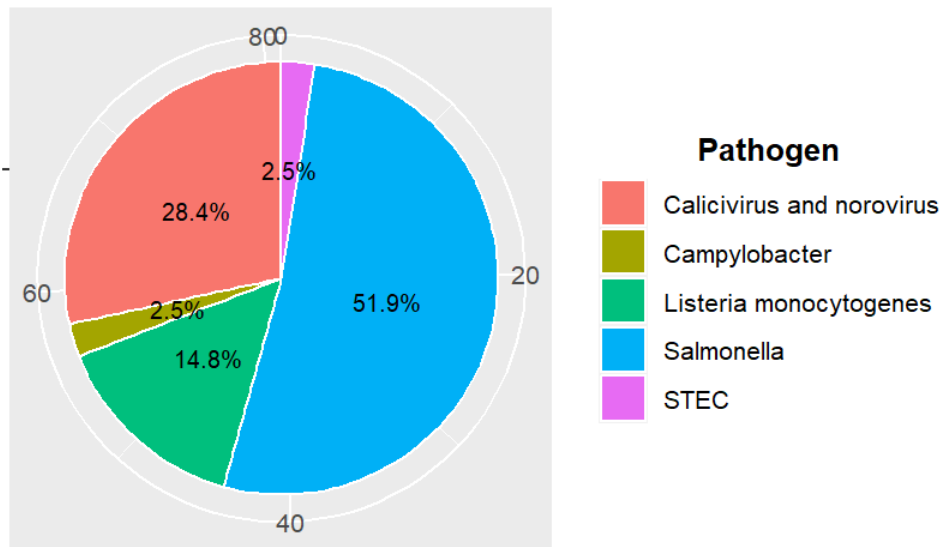
**Supplementary Figure 15. Share (%) of pathogens as causative agents of the 13-year strong-evidence outbreaks in Europe, North America and New Zealand attributed to dough-based derivatives.**

### Eggs (1345 outbreaks)



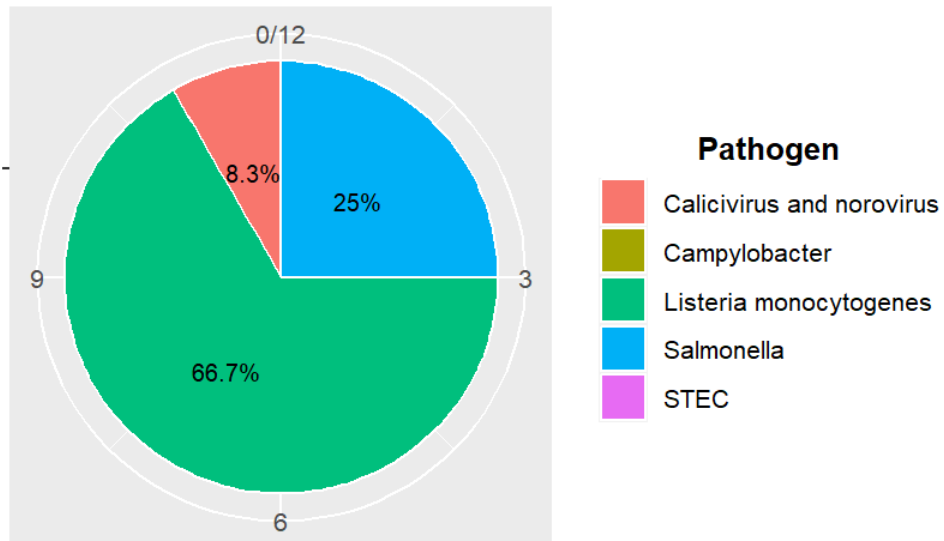
**Supplementary Figure 16. Share (%) of pathogens as causative agents of the 13-year strong-evidence outbreaks in Europe, North America and New Zealand attributed to eggs.**

### Fish (81 outbreaks)



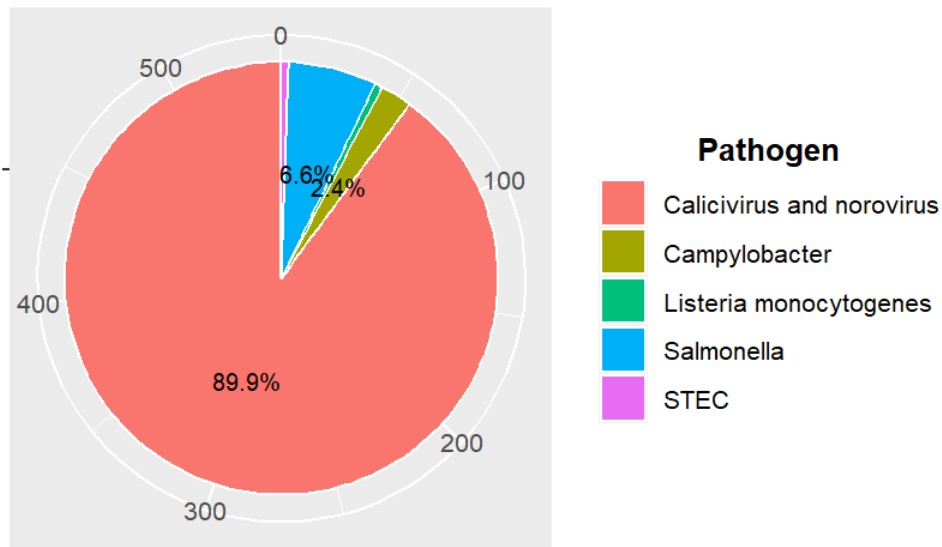
Supplementary Figure 17. Share (%) of pathogens as causative agents of the 13-year strong-evidence outbreaks in Europe, North America and New Zealand attributed to fish.

### Preserved Fish (12 outbreaks)



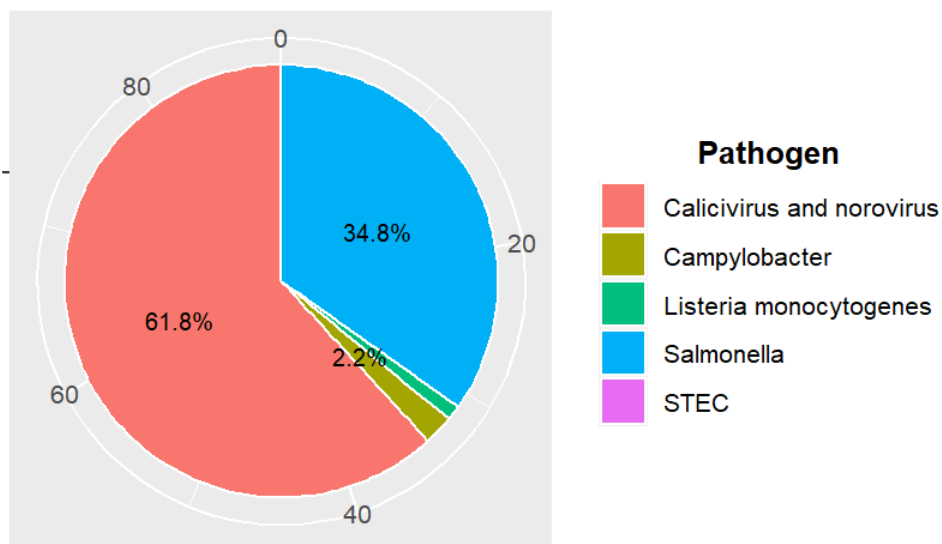
Supplementary Figure 18. Share (%) of pathogens as causative agents of the 13-year strong-evidence outbreaks in Europe, North America and New Zealand attributed to preserved fish.

### Crustaceans and Molluscs (545 outbreaks)



**Supplementary Figure 19.** Share (%) of pathogens as causative agents of the 13-year strong-evidence outbreaks in Europe, North America and New Zealand attributed to crustaceans and molluscs.

### Seafood-based meals (89 outbreaks)



**Supplementary Figure 20.** Share (%) of pathogens as causative agents of the 13-year strong-evidence outbreaks in Europe, North America and New Zealand attributed to seafood-based meals.