Gastroenteric and Zoonotic Diseases in Ireland: Provisional 2024 annual report

Includes trends to the end of Q4 2024

April 2025

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These slides were prepared by Niamh Lynch, Helen Byrne, Anthony Ortiz, Aoife Colgan and Patricia Garvey from the Gastroenteric, Zoonotic and Vectorborne Diseases team in HPSC;
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Preventing Gastroenteritis and other Zoonotic diseases

See HPSC website for information on prevention of gastroenteritis: Gastroenteritis Fact Sheet

- Ensure that you regularly wash your hands with soap under warm running water and especially:
  - After using or cleaning the toilet
  - After attending to anyone with diarrhoea or vomiting or touching anything contaminated by diarrhoea or vomiting
  - After handling household and garden waste or rubbish (including nappies)
  - After touching or handling pets or other animals
  - On returning to the house having been working in the garden or on the farm
  - Before handling, preparing, serving, or consuming food or drink
- Cook meats and eggs thoroughly before consumption.
- Clean kitchen work surfaces and utensils with soap and water immediately after they have been in contact with raw meat.
- Wash fruit and vegetables thoroughly in clean water, especially those that will not be cooked further.

- Because of the risk of avian influenza, the public are warned of the dangers of sick or dead wild birds. DAFM requests that all sick/dead wild birds are reported via the Avian Check app.

See HPSC website for travel advice for international travellers: Travel Health Fact Sheet

- When on holiday, you should take extra travel precautions with your and your family's health and ensure your travel vaccinations are up to date.

If anyone in your home is suffering from vomiting or diarrhoea, the toilet and other areas should be cleaned and disinfected after use. Anyone who is ill with diarrhoea or vomiting should stay off work/school until they have been symptom free for 48 hours.

Additional Resources

Additional information on minimising the risk of foodborne illness:

- www.safefood.net/food-safety
- www.fsai.ie/consumer-advice/food-safety-and-hygiene

Additional information on minimising the risk of zoonotic infection:

- www.hpsc.ie/a-z/zoonotic/petsandotheranimals/

Additional information on minimising the risk of travel-associated infection:

- www.ireland.ie/en/dfa/overseas-travel/advice/
- www.who.int/travel-advice
- www.hse.ie/eng/health/immunisation/pubinfo/travelvacc/

Additional information on minimising the risk associated with sexual transmission of shigellosis:

- www.sexualwellbeing.ie/sexual-health/sexually-transmitted-infections/types-of-stis/shigella-in-gbmsm.html
- man2man.ie/shigella/

Gastroenteric and Zoonotic Diseases: Key Points 2024

- Overall in 2024, there were **higher notification rates** for campylobacteriosis, listeriosis, noroviral infection, hepatitis A, giardiasis, rotavirus infection, typhoid fever and yersiniosis compared to 2023
  - Campylobacteriosis remains the most frequently notified gastroenteric disease in Ireland and the rate of notification has been increasing annually since 2021, a trend that has not been replicated elsewhere in Europe where notification rates have remained relatively stable during that time period
  - A number of small clusters and outbreaks of listeriosis were notified and investigated in 2024, accounting for the slight increase in cases
  - A new norovirus genotype (GII.17), not previously detected in Ireland, largely accounted for the increased notification rate in 2024 as there was limited immunity in the population to this strain; increases were seen elsewhere in Europe and the US
  - Travel to the Indian sub-continent continued to be a risk factor for cases of typhoid fever in 2024 and renewed messaging around the efficacy of vaccination and precautions to take while travelling have been issued ahead of the Spring/Summer travel season in 2025
  - The reasons for higher notification rates of giardiasis, hepatitis A, rotavirus and yersiniosis are less clear but surveillance developments to enhance our understanding of risk factors for some of these diseases are underway in 2025

- There were **lower notification rates** for cryptosporidiosis, leptospirosis and VTEC in 2024 compared to 2023
  - A large travel related outbreak associated with travel to Salou in Spain and subsequent high domestic transmission contributed to the high number of notifications of cryptosporidiosis in 2023; the rate returned to expected levels in 2024 but the burden of disease remains high in Ireland
  - There were a record number of leptospirosis notifications in 2023 but the rate returned to expected levels in 2024; surveillance developments are in progress to enhance our understanding of risk factors in Ireland
  - While VTEC remained the third most frequently notified gastroenteric infection in Ireland in 2024, notifications were 13% lower than in 2023. There was an atypical seasonal pattern in 2024, with lower notifications in most age groups and regions. The reasons for this are not clear but may be partly explained by relatively dry weather in summer and autumn 2024

- Notifications of salmonellosis, shigellosis, hepatitis E and paratyphoid fever remained largely unchanged in 2024, compared to 2023
  - The burden of disease of salmonellosis and shigellosis remains high in Ireland; we also report trends in antimicrobial resistance for these pathogens in line with their status as WHO Bacterial Priority Pathogens of public health importance to guide research, development and strategies to prevent and control AMR

Gastroenteric and Zoonotic diseases in Ireland summary, 2024

Disease category	Disease	Q4 2023	Q4 2024	Increase/ Decrease	% Change	Q1-Q4 2024*
Bacterial IID infections	Campylobacter infection	796	907	111	14%	3984
	Cholera	0	0	0	0%	0
	Listeriosis	4	4	0	0%	22
	Paratyphoid	2	2	0	0%	10
	Salmonellosis	99	98	-1	-1%	390
	Shigellosis	62	65	3	5%	215
	Typhoid	2	5	3	150%	26
	Verotoxigenic Escherichia coli infection	192	193	1	1%	799
	Yersiniosis	7	4	-3	-43%	40
Viral IID infections	Noroviral infection	377	440	63	17%	1947
	Rotavirus infection	72	72	0	0%	791
Foodborne Hepatitis	Hepatitis A	9	17	8	89%	66
	Hepatitis E	15	10	-5	-33%	43
Parasitic IID infections	Cryptosporidiosis	263	63	-173	-73%	640
	Giardiasis	63	90	27	43%	362
IID toxins	Clostridium perfringens (type A) food-borne disease	0	1	1	-100%	1
	Bacillus cereus food-borne infection/intoxication	0	0	0	0%	0
	Botulism	0	0	0	0%	1
	Staphylococcal food poisoning	0	0	0	0%	0

Data source: Computerised Infectious Diseases Reporting (CIDR) system 27/01/2025

*Yearly totals for 2024 are provisional

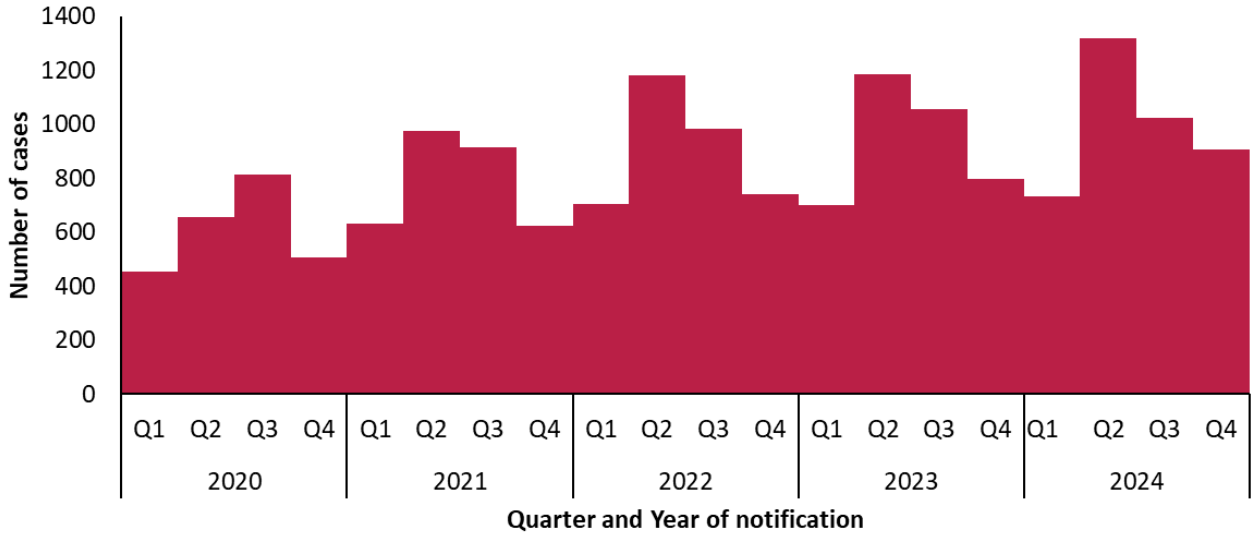
Gastroenteric and Zoonotic diseases in Ireland summary, 2024 continued

Disease category	Disease	Q4 2023	Q4 2024	Increase/ Decrease	% Change	Q1-Q4 2024*
Non-IID Zoonotic infections	Anthrax	0	0	0	0%	0
	Brucellosis	1	0	-1	-100%	1
	Echinococcosis	0	1	1	N/A	3
	Leptospirosis	20	6	-14	-70%	16
	Plague	0	0	0	0%	0
	Q fever	1	0	-1	-100%	1
	Rabies	0	0	0	0%	0
	Toxoplasmosis	6	5	-1	-17%	14
	Trichinosis	0	0	0	0%	0

Data source: Computerised Infectious Diseases Reporting (CIDR) system 27/01/2025

*Yearly totals for 2024 are provisional

Campylobacter in Ireland, Q4 2024



Type	Outbreaks (N)	Number ill	Range ill
N/a	0	N/a	N/a

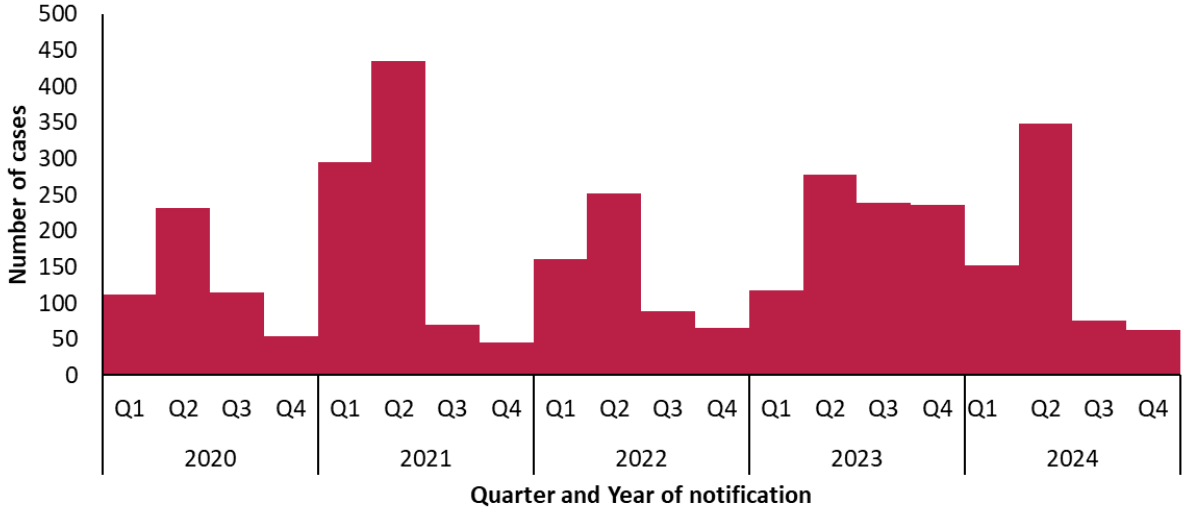
Species	Number of isolates	Proportion of sequenced isolates
Campylobacter jejuni	75	90%
Campylobacter coli	5	6%
Campylobacter lari	2	2%
Campylobacter fetus	1	1%
Total	**83**	**100%**

- 907 cases of Campylobacteriosis notified in Q4 2024, higher than the number notified in Q4 2023 (n=796), and **a total of 3,984 notifications in 2024**
- There were no Campylobacter outbreaks notified in Q4 2024; compared to four outbreaks in Q4 2023
- 83 Campylobacter isolates were sequenced in the sentinel Campylobacter Reference Laboratory, representing approximately 9% of campylobacteriosis cases notified
- *C. jejuni* was most common with 90% of isolates sequenced being *C. jejuni*

Data source: Computerised Infectious Diseases Reporting (CIDR) system 27/01/2025 and Public Health Laboratory, Cherry Orchard 19/02/2025

*Yearly totals for 2024 are provisional

Cryptosporidiosis in Ireland, Q4 2024



	N	% where known
Indigenous	551	90%
Travel-related	58	10%
Travel status not known	31	n/a
Total	**640**	

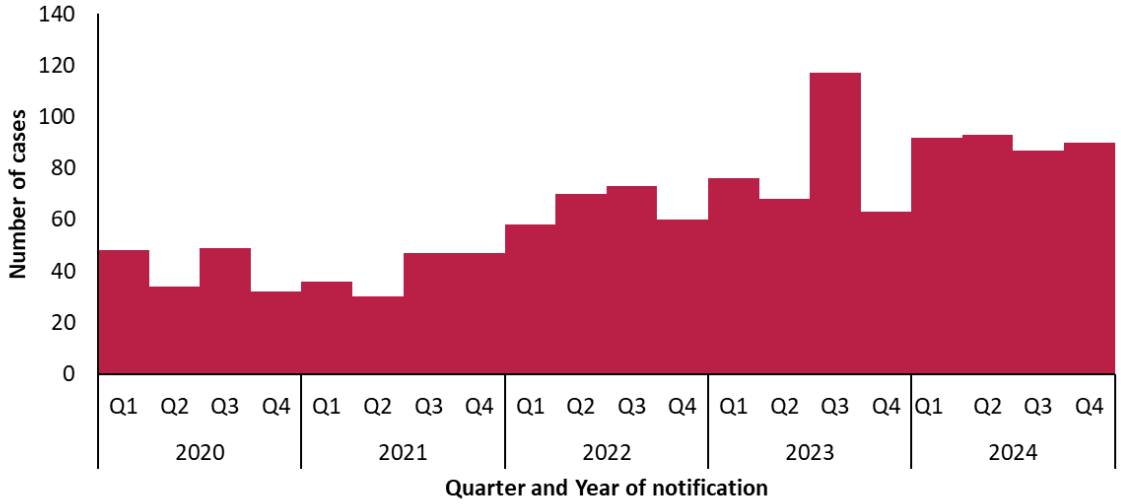
Type	Outbreaks (N)	Number ill	Median ill	Range ill
Family	1	2	n/a	n/a
General	1	2	n/a	n/a

- 63 cases of cryptosporidiosis notified in Q4 2024, much lower than in Q4 2023 (n=236), and more similar to Q3 in previous years; The **total number of notifications in 2024 was 640**
- Two Cryptosporidiosis outbreaks notified in Q4 2024, lower than the number of outbreaks reported for the same time period in 2023 (n=24)
- One outbreak was a waterborne outbreak with 2 people ill. The second was an outbreak in a private house with two people ill.
- 90% of cases in Q4 2024 were domestically-acquired (where travel status was known).

Data source: Computerised Infectious Diseases Reporting (CIDR) system 27/01/2025

*Yearly totals for 2024 are provisional

Giardiasis in Ireland, Q4 2024



Travel status	Number of cases	% where known
Domestic	45	71%
Travel-related	18	29%
Travel status not known	27	n/a
Total	**90**	**100%**

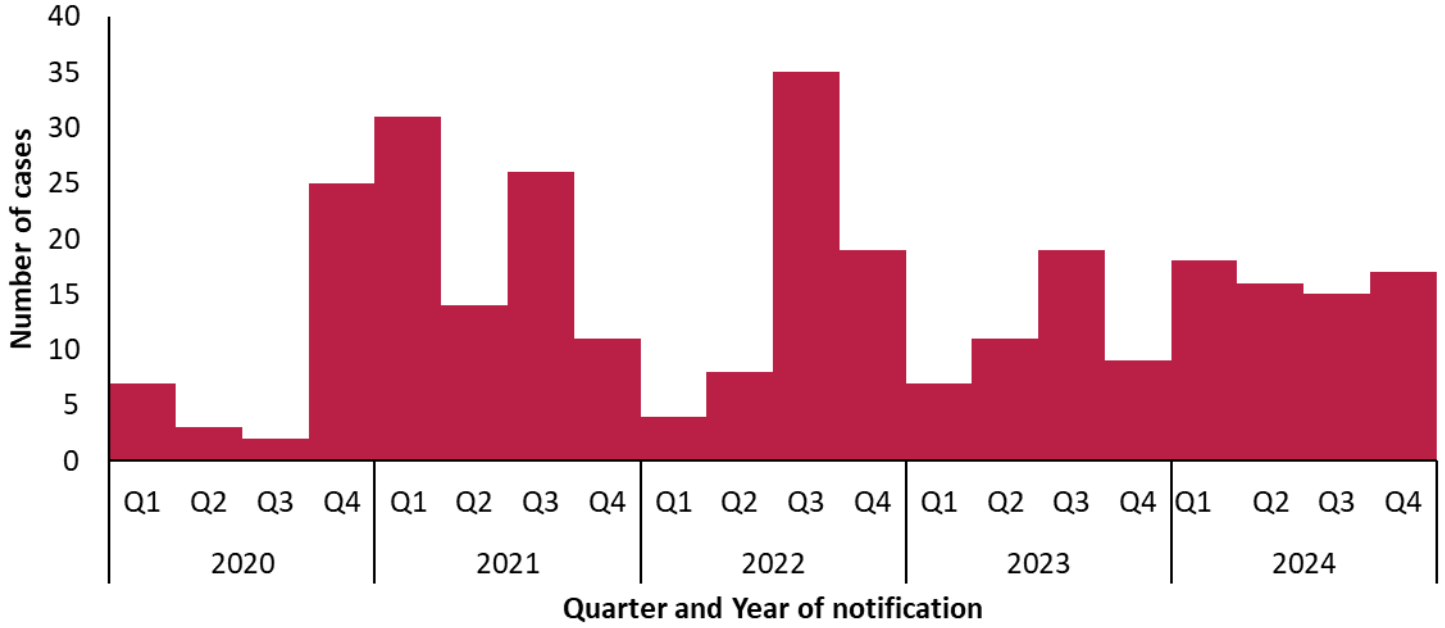
Outbreak Type	Number of outbreaks	Total number ill	Range number ill
Family	1	2	N/A
General	0	N/A	N/A
Total	**1**	**2**	**N/A**

- 90 cases of giardiasis notified in Q4 2024, higher than 63 notified in Q4 2023 but comparable to Q1-3 2024, bringing the **2024 total to 362 cases**
- The male to female ratio of cases reported in Q4 2024 was 2.2, in line with other quarters in 2024
- Where travel status was known (for 70% of cases), 71% were domestically-acquired and 29% were associated with international travel; travel status was not available for 30% of cases so caution is advised when interpreting these data
- One family outbreak of giardiasis was notified in Q4 2024; transmission route for this outbreak was reported as person-to-person

Data source: Computerised Infectious Diseases Reporting (CIDR) system 27/01/2025

*Yearly totals for 2024 are provisional

Hepatitis A in Ireland, Q4 2024



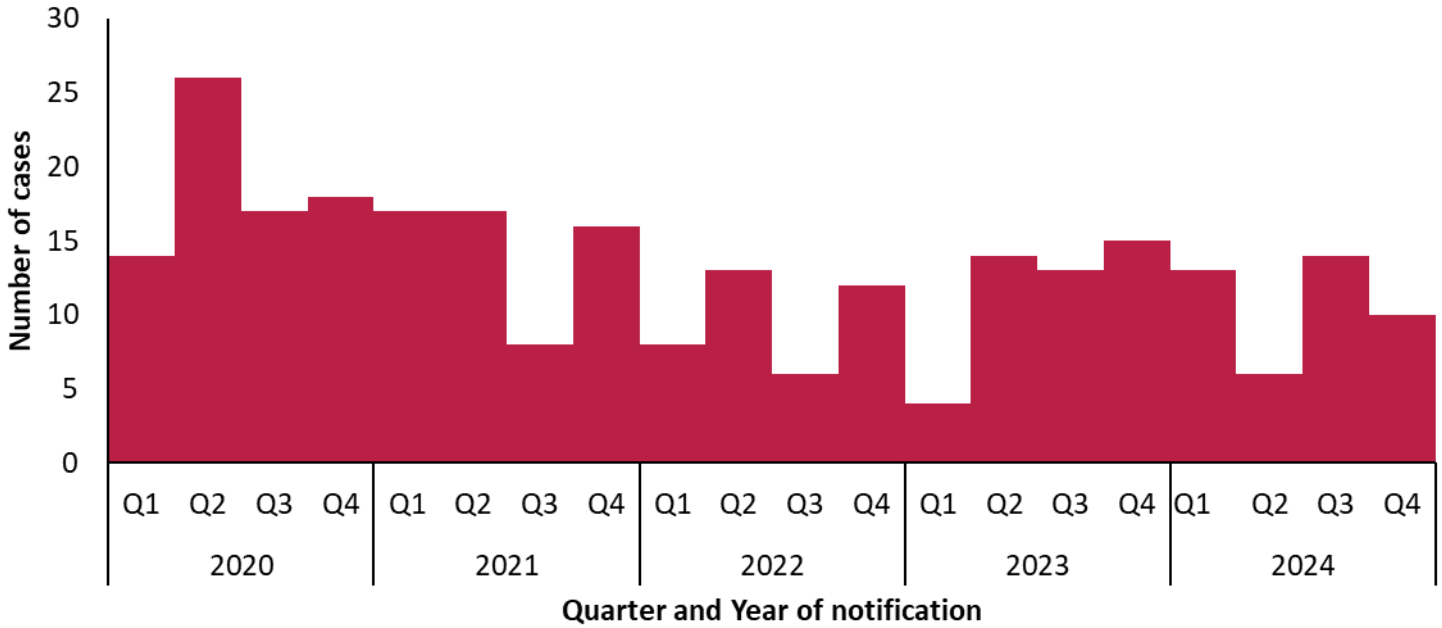
	N	% where known
Indigenous	7	54%
Travel-related	6	46%
Travel status not known	4	n/a
Total	**17**	

- 17 cases of Hepatitis A notified in Q4 2024, almost double the number of cases when compared to Q4 2023 (n=9) but comparable to the quarterly numbers reported for the rest of 2024. In total **there were 66 notifications in 2024**.
- Two family Hepatitis A outbreaks notified in Q4 2024; one of these outbreaks was associated with international travel
- 54% of cases in Q4 2024 were reported as domestically-acquired (where travel status was known; travel status was known for 76% of cases).

Data source: Computerised Infectious Diseases Reporting (CIDR) system 27/01/2025

*Yearly totals for 2024 are provisional

Hepatitis E in Ireland, Q4 2024



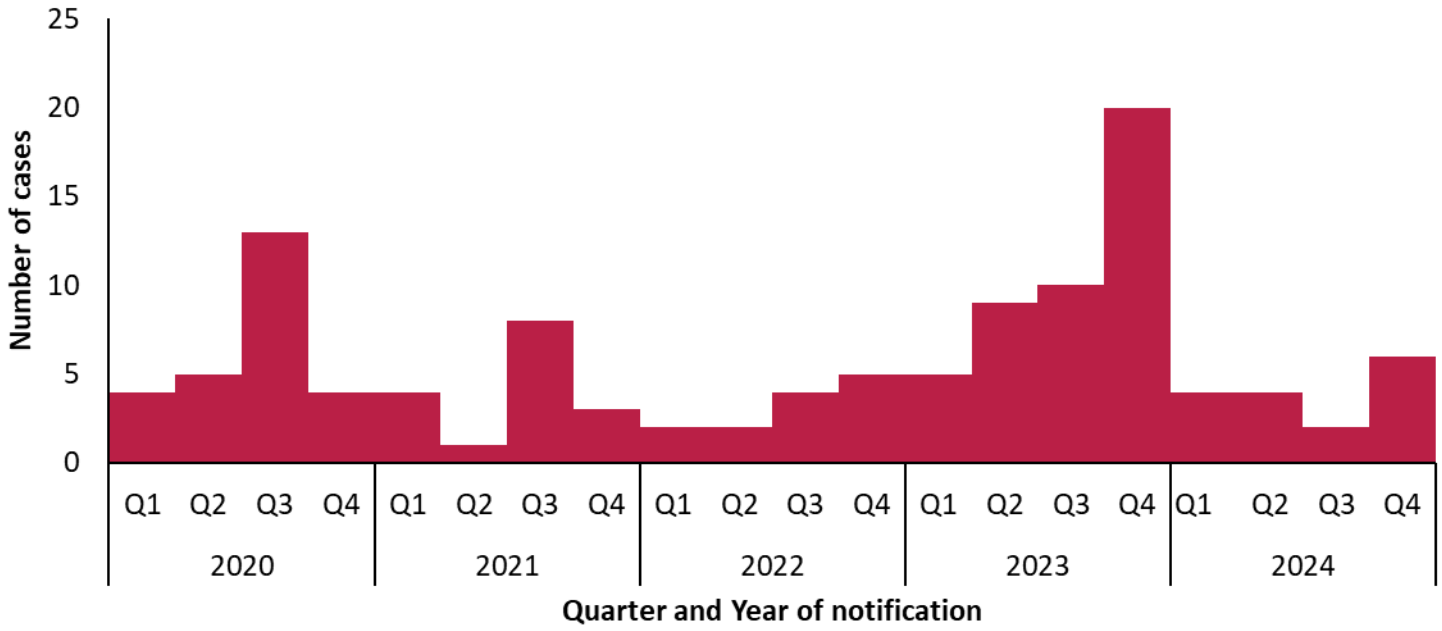
Country of infection	N	% where known
Ireland	5	83
Africa	1	17
Not specified	4	n/a
Total	**10**	

- 10 cases of Hepatitis E were notified in Q4 2024, bringing the **total number of notifications in 2024 to 43** and comparable to the total number of notifications in 2023 (n=46)
- 60% of cases were male and 40% were female
- All cases were in adults aged between 20 and 60 years old
- No Hepatitis E outbreaks were reported in Q4 2024 or in Q4 2023
- Country of Infection (COI) was specified for 6 of the 10 cases in Q4 2024.

Data source: Computerised Infectious Diseases Reporting (CIDR) system 27/01/2025

*Yearly totals for 2024 are provisional

Leptospirosis in Ireland, Q4 2024



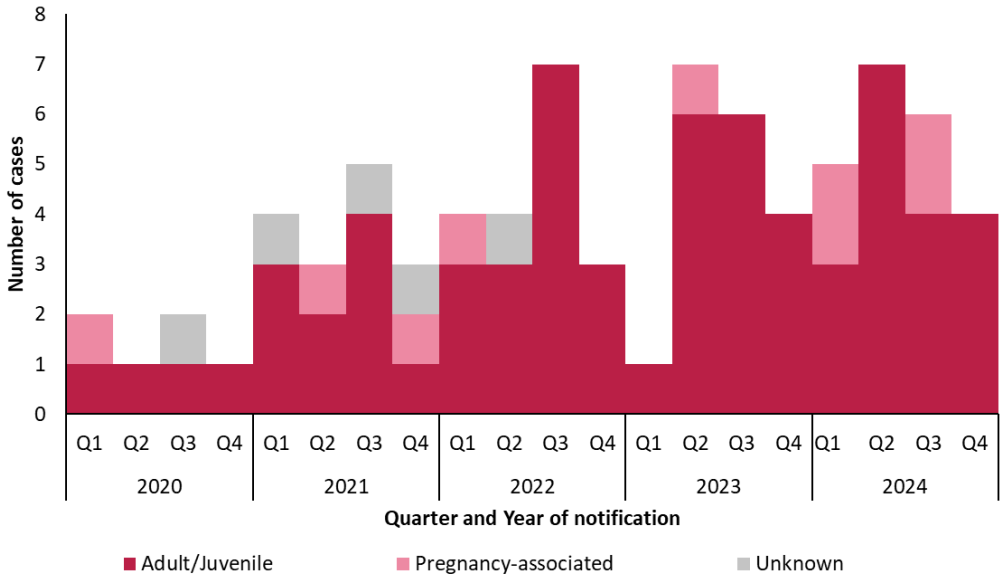
	Q4 2023	Q4 2024	% Change
Number of cases	20	6	-70%
No. hospitalised	14	6	-57%

- There were 6 notified cases of leptospirosis in Q4 2024, 70% lower than Q4 2023 (n=20) bringing the **total number of notifications in 2024 to 16**
- 60% of cases in Q4 2024, where transmission source was known, were reported to have been acquired residentially (3/5)

Data source: Computerised Infectious Diseases Reporting (CIDR) system 21/10/2024

*Yearly totals for 2024 are provisional

Listeriosis in Ireland, Q4 2024



Adult/Juvenile case Principal Diagnosis	Number of cases
Septicaemia	2
Meningitis	1
Other	1
Total	**4**

Pregnancy related case outcome	Number of cases
N/A	0
Total	**0**

Serotype	Number of isolates
Listeria monocytogenes 1/2a	3
Listeria monocytogenes 4b	2
Total	**5**

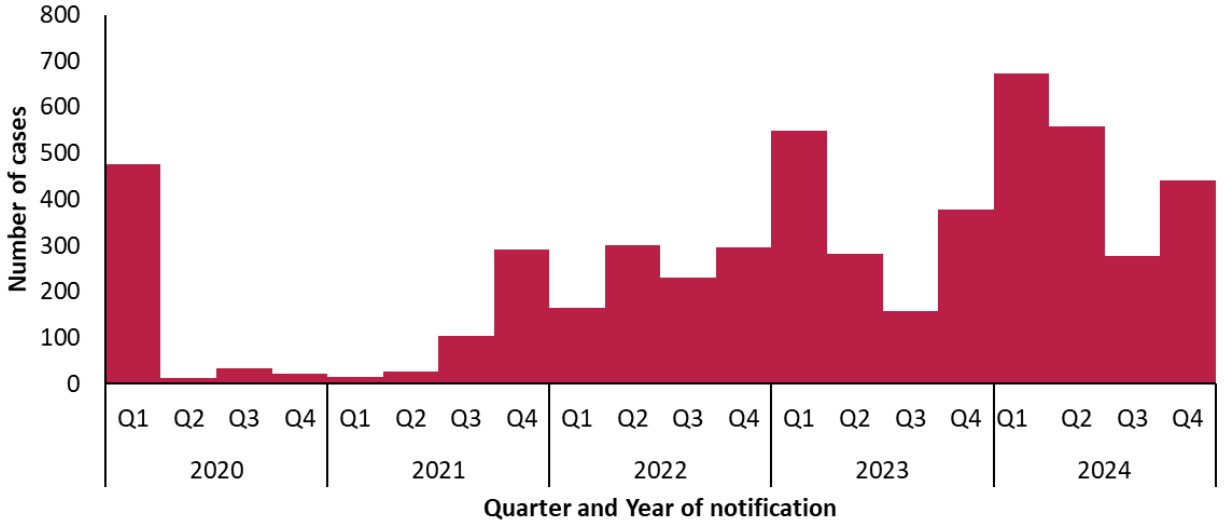
- Four cases of listeriosis notified in Q4 2024, unchanged from Q4 2023, bringing the **total number of notifications for 2024 to 22**, a slight increase from 18 in 2023
- All were adult/juvenile cases and there were no pregnancy-associated cases in Q4 2024
- Five clinical isolates of *Listeria monocytogenes* were sequenced in the NSSLRL*
- The most frequently seen serotype in Q4 2024 was 1/2a
- There were no outbreaks of listeriosis notified in Q4 2024 but two isolates that were genetically related to other isolates were identified and investigated further during Q4 2024

*The number of isolates sequenced in the NSSLRL may not match the number of cases notified, as dates are based on date received in the laboratory which may not align with notification date. Furthermore, additional isolates for mother/baby pairs may be sequenced in the NSSLRL but only the mother will be notified as a listeriosis case in line with the Irish case definition. Finally, some cases may have been confirmed by molecular methods only and isolates were not available for sequencing.

Data source: Computerised Infectious Diseases Reporting (CIDR) system 28/01/2025 and NSSLRL

*Yearly totals for 2024 are provisional

Norovirus and Acute Infectious Gastroenteritis (AIG) in Ireland, Q4 2024



Location	Outbreaks (N)		Total Number ill		Median ill		Range ill	
	Noro	AIG	Noro	AIG	Noro	AIG	Noro	AIG
Hospital	24	2	180	10	5	5	2-22	4-6
Nursing home	16	14	440	149	21	8	6-114	2-49
Residential institution	0	7	0	43	0	4	0	3-14
Comm. Hosp/Long-stay unit	1	2	19	6	19	3	19-19	2-4
Non-healthcare settings	0	4	0	52	0	14	0	7-17
Total	41	29	639	260	45	34	2-114	2-49

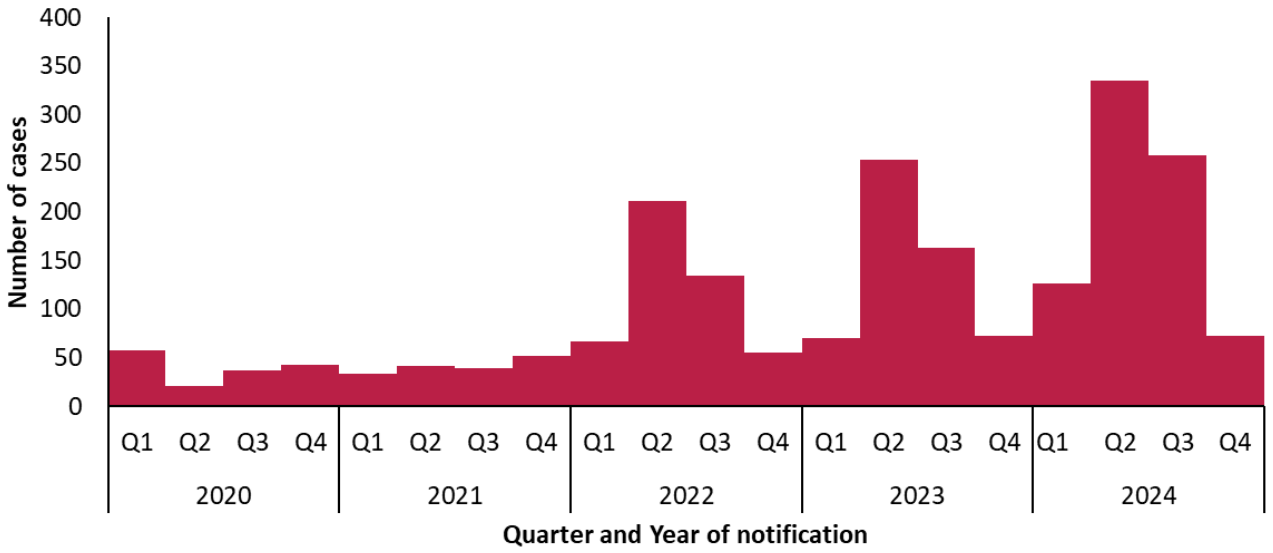
- There were 440 notified cases of Norovirus infection in Q4 2024, bringing the **total number of notifications in 2024 to 1,947**
- 44 Norovirus and 29 AIG outbreaks were reported in Q4 2024. Of these, 39 Norovirus and 25 AIG outbreaks occurred in health care settings (see table)
- The largest norovirus outbreak notified in Q4, 2024 was in a health care setting, where the number ill was 114; this outbreak occurred in a nursing home and the mode of transmission was person-to-person
- Of 31 representative GII samples from Q4 sequenced by the NVRL, GII.17 was the most common type at 65% (n=20), followed by GII.4 at 29% (n=9). This change in predominant genotype, was first detected in Ireland in February 2024, and has been reported elsewhere in Europe and the US[1]

[1] Eurosurveillance | Increased circulation of GII.17 noroviruses, six European countries and the United States, 2023 to 2024

Data sources: Computerised Infectious Diseases Reporting (CIDR) system 27/01/2025, the National Virus Reference Laboratory (NVRL) 29/01/2025

*Yearly totals for 2024 are provisional

Rotavirus in Ireland, Q4 2024



Type	Outbreaks (N)	Number ill	Median ill	Range ill
General	0	n/a	n/a	n/a
Family	1	2	n/a	n/a
Total	**1**	**2**	**n/a**	**n/a**

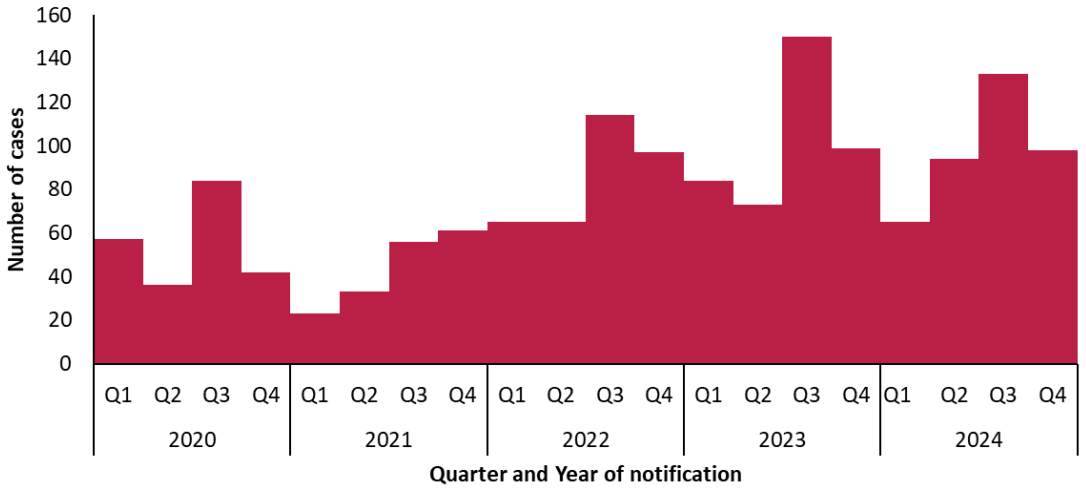
- 72 cases of Rotavirus were notified in Q4 2024, the same number as in Q4 2023, bringing the **total number of notifications to 791 in 2024**
- Most cases were notified in those aged under 5 years (35% were aged <1 year, 21% were aged 1 year and 28% were aged 2-4 years at the time of notification)
- There was one Rotavirus outbreak notified in Q4 2024, in a private house setting with two people ill, transmission reported as person to person.
- Rotarix™ vaccine was introduced in Ireland in December 2016 for all babies born from 1st October 2016 onwards[2]
- Vaccine uptake for Rotavirus has been greater than 89% nationally at 24 months since introduced but remains below the target of ≥95%
- Quarterly and annual immunisation uptake statistics at 12 and 24 months of age for Rotavirus are available on the HPSC website at: https://www.hpsc.ie/a-z/vaccinepreventable/vaccination/immunisationuptakestatistics/

2. Rotavirus Annual Epidemiological Report 2018. Health Protection Surveillance Centre Available at: https://www.hpsc.ie/a-z/gastroenteric/rotavirus/epidemiologicaldata/annualreportsonrotavirus/2018_Rota_20190415_v1.1.pdf

Data source: Computerised Infectious Diseases Reporting (CIDR) system 27/01/2025

*Yearly totals for 2024 are provisional

Salmonellosis in Ireland, Q4 2024



Serotype	Travel status			Total
	Domestic	Travel	Unknown	
S. Typhimurium inc. monophasic Typhimurium	15	4	4	23
S. Enteritidis	2	6	1	9
Other serotypes	28	24	14	66
Total	**45**	**34**	**19**	**98**

Outbreak Type	Number of outbreaks	Total number ill	Range number ill
Family	3	11	2-6
General	2	8	3-5
Total	**5**	**19**	**2-6**

- 98 cases of salmonellosis were notified in Q4 2024, comparable to 99 in Q4 2023, bringing the **total number of notifications in 2024 to 390**
- Where travel history was known (n=79), 57% of cases were domestically-acquired and 43% were travel-associated
- An association with travel was more common among *S.* Enteritidis cases (75%), while 21% of *S.* Typhimurium cases were travel-associated; travel status was missing for 19% of cases so these data should be interpreted with caution
- Two general outbreaks of salmonellosis were notified in Q4 2024; one was part of a larger multi-country outbreak of *S.* Mikawasima associated with international travel to the Canary islands and the other was associated with international travel to mainland Spain

Data source: Computerised Infectious Diseases Reporting (CIDR) system 27/01/2025

*Yearly totals for 2024 are provisional

Genomic analysis of non-typhoidal *Salmonella* in Ireland, Q4 2024

Serotype	Number of isolates	Proportion of isolates
S. Typhimurium inc. monophasic Typhimurium	26	27%
S. Enteritidis	11	12%
S. Adjame	6	6%
S. Mikawasima	5	5%
Other serotypes	47	50%
Total	**95**	**100%**

Antimicrobial class	Isolates with resistance markers	
	Number	Proportion
Quinolones	44	46%
Tetracycline	19	20%
Ampicillin	16	17%
Sulphonamides	14	15%
Chloramphenicol	5	5%
Third Generation Cephalosporins	3	3%
Trimethoprim	2	2%
Aminoglycosides	1	1%
Azithromycin	1	1%

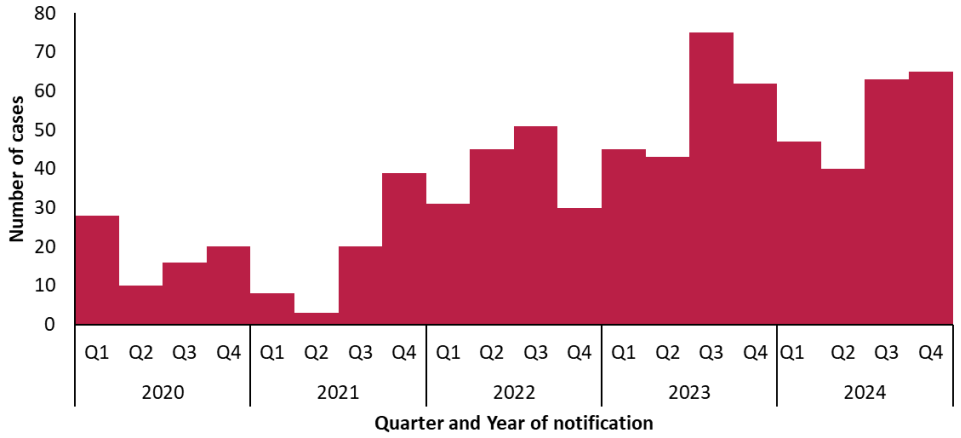
Specimen type	Number of isolates
Faeces	85
Blood	7
Other	3
Total	**95**

*The number of isolates sequenced in the NSSLRL may not match the number of cases notified, as dates are based on date received in the laboratory which may not align with notification date. Furthermore, isolates may be sequenced in the NSSLRL for cases that do not meet the criteria for notification under the Irish case definition.

- 95 non-typhoidal *Salmonella* (NTS) isolates were sequenced in the NSSLRL in Q4 2024*
- The most frequently seen serotypes were *S.* Typhimurium and *S.* Enteritidis
- 7% of isolates were from bloodstream infections
- Antimicrobial resistance is predicted based on whole genome sequencing (WGS) data

Data source: National Salmonella, Shigella and Listeria Reference Laboratory (NSSLRL)

Shigellosis in Ireland, Q4 2024



Travel	Child		Adult Female		Adult Male		Total	
	N	%	N	%	N	%	N	%
Domestic	2	33%	4	36%	27	57%	33	52%
Travel - Europe	0	0%	1	9%	12	26%	13	20%
Travel - Outside Europe	3	50%	3	27%	2	4%	8	13%
Unknown	1	17%	3	27%	6	13%	10	16%
Total	6	100%	11	100%	47	100%	64*	100%

*Excludes adult cases where sex was not reported (n=1)

Outbreak Type	Number of outbreaks	Total number ill	Range number ill
Family	1	2	N/A
General	1	3	N/A
Total	**2**	**5**	**N/A**

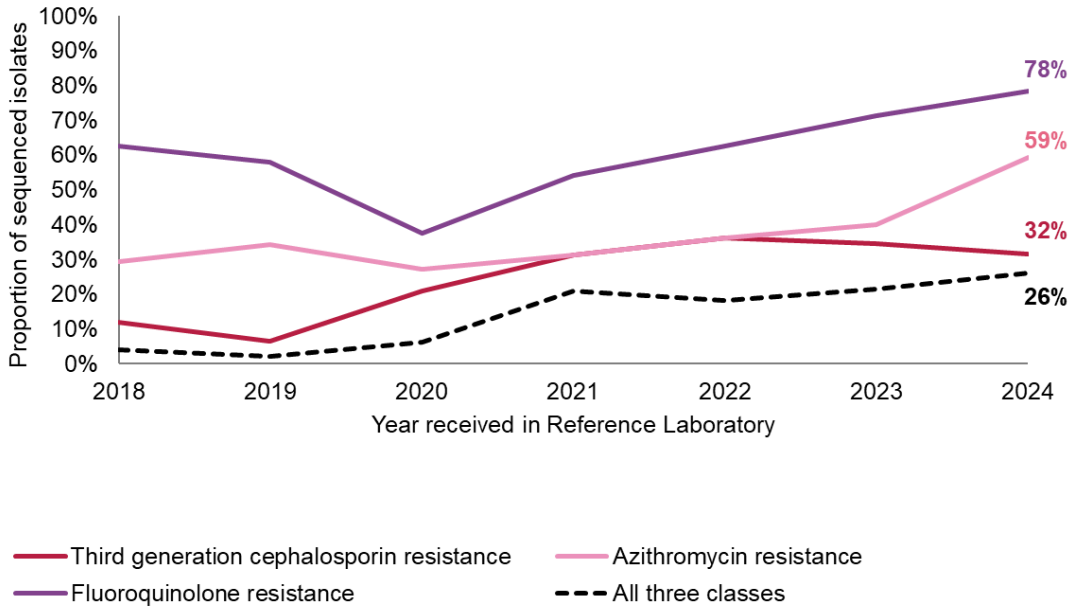
- 65 cases of shigellosis were notified in Q4 2024 (56 confirmed and 9 probable, comparable to 62 in Q4 2023 and bringing **the total number of notifications for 2024 to 215**
- Where travel history was known (85%), 40% were associated with international travel and 60% were domestically-acquired
- Adult males were more likely to have been infected in Ireland or another European country
- Adult males continued to be the group most affected as sexual transmission among gay, bisexual and other men who have sex with men (gbMSM) is a key feature of shigellosis in Ireland
- Two outbreaks were notified during Q4 2024, transmission was reported as person-to-person for both

Data source: Computerised Infectious Diseases Reporting (CIDR) system 14/03/2025

*Yearly totals for 2024 are provisional

Genomic analysis of *Shigella* in Ireland, Q4 2024

Serotype	Number of isolates	Proportion of isolates
Shigella flexneri	33	75%
Shigella sonnei	11	25%
Total	**44**	**100%**

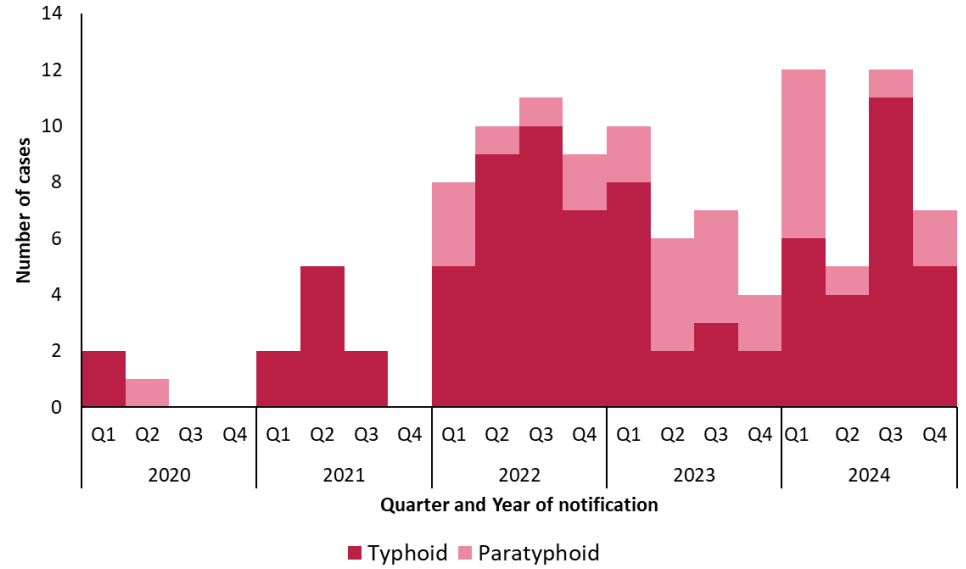


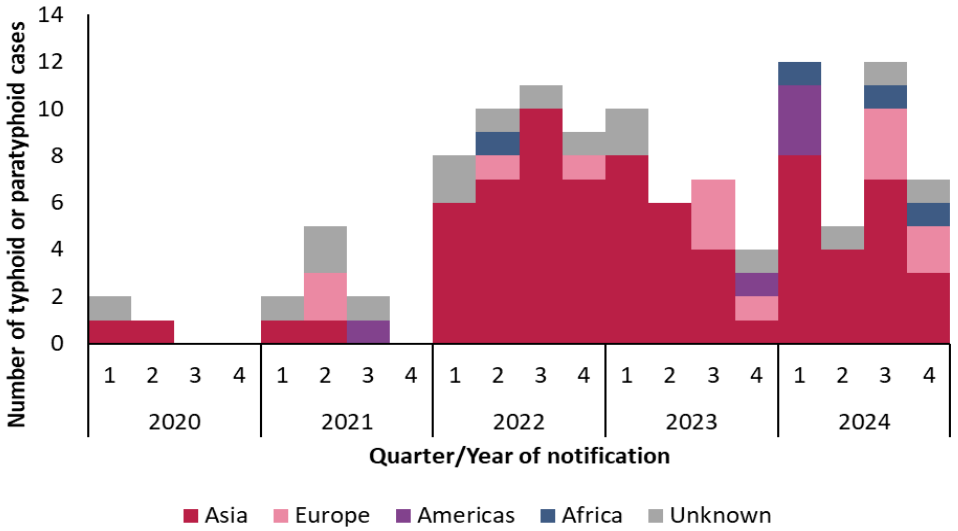
- 44 *Shigella* isolates were sequenced in the NSSLRL in Q4 2024*
- *S. flexneri* was the most frequently seen serotype
- Antimicrobial resistance is predicted based on whole genome sequencing (WGS) data. In 2024:
  - 78% of isolates were predicted to be fluroquinolone resistant, increased from 71% in 2023
  - 59% were predicted to be azithromycin resistant, increased from 40% in 2023
  - 32% were predicted to be resistant to third generation cephalosporins, decreased from 35% in 2023
  - 26% were predicted to be resistant to all three classes of antimicrobials, increased from 21% in 2023

*The number of isolates sequenced in the NSSLRL may not match the number of cases notified, as dates are based on date received in the laboratory which may not align with notification date. Furthermore, according to the Irish case definition probable cases of shigellosis may be notified when *Shigella* spp. nucleic acid is detected in a clinical specimen in the absence of subsequent culture confirmation.

Data source: National Salmonella, Shigella and Listeria Reference Laboratory (NSSLRL)

Typhoid and Paratyphoid in Ireland, Q4 2024





- Five cases of typhoid were notified in Q4 2024, increased from two cases notified in Q4 2023, bringing the **total number of typhoid notifications in 2024 to 26**
- Two cases of paratyphoid were notified in Q4 2024, unchanged from Q4 2023, bringing the **total number of paratyphoid notifications in 2024 to 10**
- Where travel history was known (86%), 50% travelled to Asia
- One general outbreak of typhoid, with 4 people ill was reported in Q4 2024; outbreak transmission was reported as person-to-person and laboratory-acquired
- Country of infection was reported as Ireland for two cases; these cases were linked to the general outbreak

Ireland was reported as country of infection for a small number of cases. These infections were typically secondary infections, following return of a close contact from an endemic country or were laboratory-acquired infections.

Data source: Computerised Infectious Diseases Reporting (CIDR) system 27/01/2025

*Yearly totals for 2024 are provisional

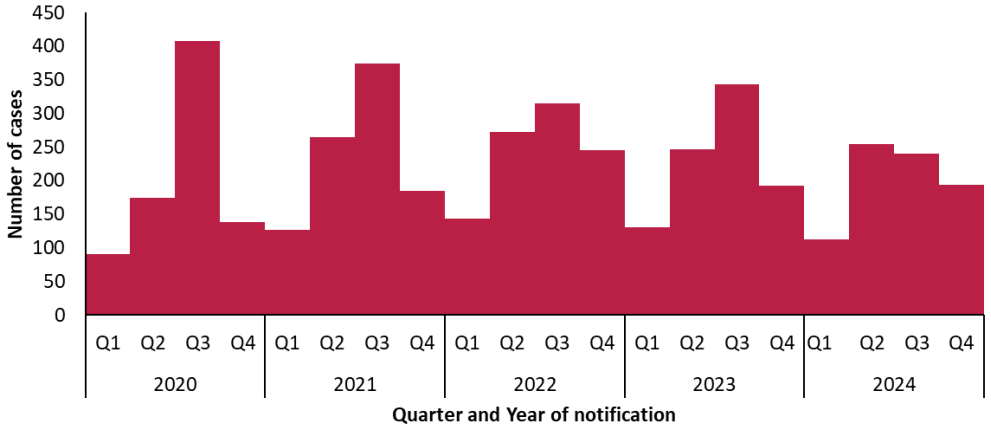
Genomic analysis of *Salmonella* Typhi and Paratyphi in Ireland, Q4 2024

Antimicrobial class	Isolates with resistance markers	
	Number	Proportion
Quinolones	5	71%
Ampicillin	5	71%
Sulphonamides	5	71%
Trimethoprim	5	71%
Chloramphenicol	4	57%
Tetracycline	1	14%
Third Generation Cephalosporins	0	0%
Aminoglycosides	0	0%
Azithromycin	0	0%

- Seven isolates of *Salmonella* Typhi (n=5) or *S.* Paratyphi A (n=1) or S. Paratyphi B (n=1) were sequenced in the NSSLRL in Q4 2024*
- Antimicrobial resistance is predicted based on whole genome sequencing (WGS) data:
  - Over 70% of isolates sequenced were predicted to be resistant to quinolones, Ampicillin, Sulphonamides and Trimethoprim
  - None were predicted to be resistant to third generation cephalosporins, decreased from 27% in Q3 2024
  - None were predicted to be resistant to Aminoglycosides or Azithromycin, consistent with previous quarterly data

*The number of isolates sequenced in the NSSLRL may not match the number of cases notified, as dates are based on date received in the laboratory which may not align with notification date. Furthermore, isolates may be sequenced in the NSSLRL for cases that do not meet the criteria for notification under the Irish case definitions for typhoid and paratyphoid.

VTEC in Ireland, Q4 2024



	Bloody diarrhoea		HUS	
	N	% (where known)	N	% (where known)
Yes	54	32%	6	4%
No	115	68%	141	96%
Unknown	3	N/A	14	N/A
Not specified	21	N/A	32	N/A
Total	**193**	**N/A**	**193**	**N/A**

Type	Outbreaks (N)	Number ill	Total ill	Range ill
General	3	27	24	2-16
Family	16	31	33	2-3
Total	**19**	**58**	**2**	**2-16**

- 193 cases of VTEC were notified in Q4 2024, similar to Q4 2023 (n=192), bringing the **total number of notifications to 799 in 2024**
- 37% were admitted to hospital
- Six (4%) cases of HUS in Q4 2024, compared to three (2%) cases of HUS in Q4 2023
- For Q1-4 2024, there were 29 cases of HUS compared to 27 HUS cases during Q1-4 2023
- 19 VTEC outbreaks were reported in Q4 2024; three were general outbreaks: two in childcare facilities (transmission reported as person to person) and one community outbreak (transmission reported as foodborne)

Patient type	Number of cases	Proportion of cases
Hospital Inpatient	72	37%
GP Patient	79	41%
A&E Patient/Outpatient	30	16%
Other	5	3%
Unknown	7	4%
Total	**247**	**100%**

Data source: Computerised Infectious Diseases Reporting (CIDR) system 27/01/2025

*Yearly totals for 2024 are provisional

Genomic analysis of VTEC in Ireland, Q4 2024

Serogroup	Verotoxin genes	N	%	*eae* positive		*ehxA* positive	
				N	%	N	%
E. coli O157	*vt1*	0	N/A	0	N/A	0	N/A
	vt2	24	92%	24	100%	24	100%
	vt1 + vt2	2	8%	2	100%	2	90%
E. coli O26	*vt1*	6	15%	6	100%	6	100%
	vt2	6	15%	5	83%	6	100%
	vt1 + vt2	29	70%	27	93%	25	86%
Other serogroups	*vt1*	28	37%	12	43%	23	82%
	vt2	23	31%	9	39%	17	74%
	vt1 + vt2	24	32%	9	38%	20	83%

- 142 isolates were sequenced in the VTEC Reference Laboratory*
- The most common serogroups reported among culture confirmed cases were as follows: O26 (29%; n=41) and O157 (18%; n=26)
- All O157 were either VT2 (92%) or VT1+2 (8%)
- *eae* and *ehxA* positivity were higher for O157 and O26 isolates than for other serogroups

*The number of isolates sequenced in the Public Health Laboratory, Cherry Orchard (Reference Laboratory) may not match the number of cases notified, as dates are based on date received in the laboratory which may not align with notification date. Furthermore, isolates may be sequenced in the Reference Laboratory for cases that do not meet the criteria for notification under the Irish case definitions for VTEC.

Data source: Computerised Infectious Diseases Reporting (CIDR) system 27/01/2025 and Public Health Laboratory, Cherry Orchard 19/02/2025