



# Gastroenteric and Zoonotic Diseases in Ireland: Quarterly report



**Includes trends to the end of Q3 2025**

January 2026

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Additional thanks to our colleagues in the Public Health Laboratory (PHL) in Cherry Orchard, the National Salmonella, Shigella and Listeria Reference Laboratory (NSSLRL) and the National Virus Reference Laboratory (NVRL) for ongoing collaboration, support and advice in the surveillance of gastroenteric, zoonotic and vectorborne diseases in Ireland.

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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](http://www.safefood.net/food-safety)
- [www.fsai.ie/consumer-advice/food-safety-and-hygiene](http://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/](http://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/](http://www.ireland.ie/en/dfa/overseas-travel/advice/)
- [www.who.int/travel-advice](http://www.who.int/travel-advice)
- [www.hse.ie/eng/health/immunisation/pubinfo/travelvacc/](http://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](http://www.sexualwellbeing.ie/sexual-health/sexually-transmitted-infections/types-of-stis/shigella-in-gbmsm.html)
- [man2man.ie/shigella/](http://man2man.ie/shigella/)

# Gastroenteric and Zoonotic Diseases: Key Points, Q3 2025

- Compared to Q3 2024, there were **higher notification rates** in Q3 2025 for [campylobacteriosis](#), [hepatitis A](#), [hepatitis E](#), [leptospirosis](#), [listeriosis](#), [paratyphoid](#) and [VTEC](#)
  - Campylobacteriosis notification rates have increased year on year since 2020 and so far in 2025 this trend has continued. The notification process for campylobacteriosis changed in Q1 2025, which may have resulted in some duplicate notifications however overall, the notification rate has increased in recent years and there is a need for further research to understand transmission routes in Ireland.
  - Hepatitis A notifications were high in Q3 2025 when compared to the same time period in recent years. The higher number of notifications in this period was mainly due to a community outbreak with 16 linked cases in one region in Ireland.
  - There was an increase in Leptospirosis infections in Q3 2025, mainly driven by recreational fresh water contact both internationally and domestically. All internationally acquired cases of leptospirosis occurred in travellers returning from South and South East Asia. Leptospirosis notifications remain below the levels seen in 2023.
  - There were 9 notifications of listeriosis in Q3 2025, compared to 6 in Q3 2024. However, year-to-date notifications of listeriosis in Ireland remain similar to previous years.
  - There were 6 notifications of paratyphoid in Q3 2025, compared to 1 in Q3 2024 and 5 in Q1 2025. All six cases were associated with international travel with most cases reporting travel to Asia.
  - VTEC notifications were higher in Q3 2025 than in Q3 2024 but were comparable to the number of notifications for Q3 between 2020-2023.

# Gastroenteric and Zoonotic Diseases: Key Points, Q3 2025 (Continued)

- There were **lower notification rates** for [cryptosporidiosis](#), [noroviral infection](#), [rotavirus](#) and [typhoid](#) in Q3 2025 compared to Q3 2024
  - Norovirus notifications in Q3 2025 decreased in comparison to Q3 2024. GII.17 was the most common GII genotype in Q3 2025 and Q3 2024 while GII.4 was the most common GII genotype in Q2 2025.
  - There were 5 notifications of typhoid in Q3 2025, compared to 11 in Q3 2024. Renewed public messaging around the importance of typhoid vaccination and travel precautions were issued in Spring 2025 and may have contributed to the decrease in notifications reported during Q3 2025.
- Notifications of [giardiasis](#), [salmonellosis](#) and [shigellosis](#) remained **largely unchanged** in Q3 2025, compared to Q3 2024. Despite notification numbers being within the expected range for this time period, the burden on health of these diseases remains high in Ireland due to the high volume of cases and/or disease severity for these illnesses.
  - The number of shigellosis notifications was similar in Q3 2025 when compared to Q3 2024, but the trend of increased shigellosis notifications in 2025 continued, compared to previous years. Adult male cases made up the highest proportion of cases when compared to adult females and children, however the proportion of cases that were adult males was lower than in Q1 and Q2 2025. [Shigellosis among gay, bisexual and other men who have sex with men \(gbMSM\) remains a key feature of the disease in Ireland and elsewhere](#)
- We report trends in **antimicrobial resistance** for non-typhoidal *Salmonella*, typhoidal *Salmonella* and *Shigella* 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](#) and we report **genomic data** on campylobacteriosis, Hepatitis A, listeriosis, norovirus, salmonellosis, shigellosis and VTEC from our Reference Laboratory partners



# Gastroenteric and Zoonotic diseases in Ireland summary, Q3 2025



Disease category	Disease	Q3 2024	Q3 2025	Increase/Decrease	% Change	Year to date 2025
Bacterial IID infections	<a href="#">Campylobacter infection</a>	1024	1216	192	19%	3742
	Cholera	0	0	0	0%	1
	<a href="#">Listeriosis</a>	6	9	3	50%	19
	<a href="#">Paratyphoid</a>	1	6	5	500%	11
	<a href="#">Salmonellosis</a>	133	151	18	14%	308
	<a href="#">Shigellosis</a>	63	65	2	3%	225
	<a href="#">Typhoid</a>	11	5	-6	-55%	12
	<a href="#">Verotoxigenic Escherichia coli infection</a>	239	325	86	36%	710
	Yersiniosis	11	17	6	54%	41
Viral IID infections	<a href="#">Noroviral infection</a>	276	150	-126	-46%	1,701
	<a href="#">Rotavirus infection</a>	258	116	-142	-55%	526
Foodborne Hepatitis	<a href="#">Hepatitis A</a>	15	30	15	100%	77
	<a href="#">Hepatitis E</a>	14	21	7	50%	59
Parasitic IID infections	<a href="#">Cryptosporidiosis</a>	76	63	-13	-17%	459
	<a href="#">Giardiasis</a>	87	88	1	1%	278
IID toxins	Clostridium perfringens (type A) food-borne disease	0	0	0	0%	0
	Bacillus cereus food-borne infection/intoxication	0	0	0	0%	0
	Botulism	0	0	0	0%	0
	Staphylococcal food poisoning	0	0	0	0%	0





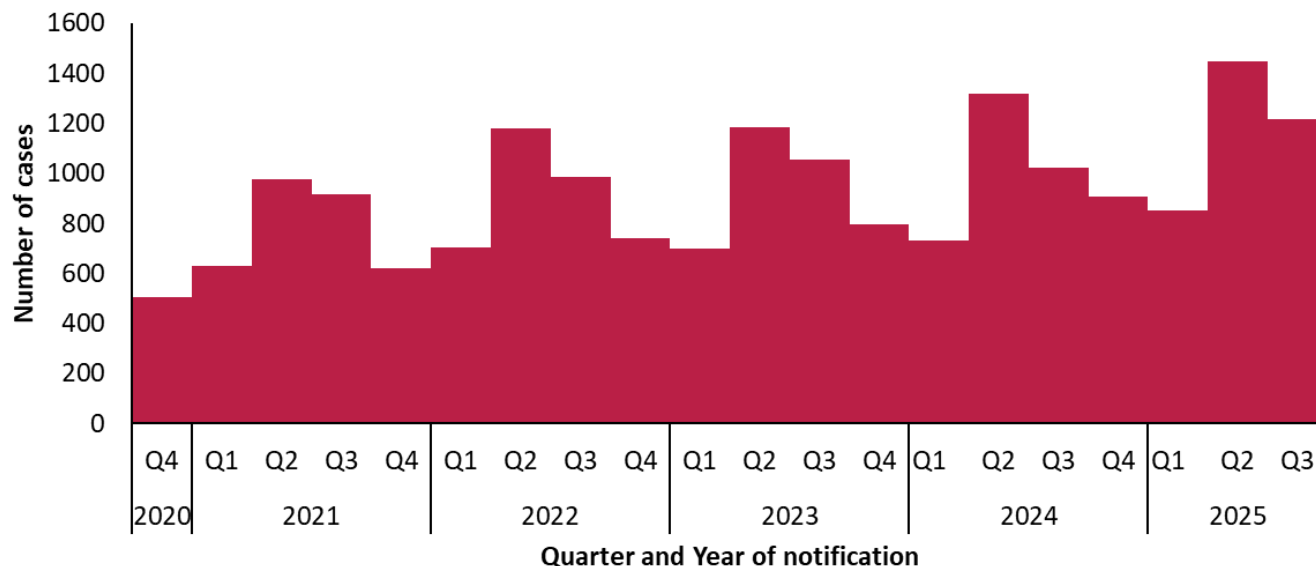
# Gastroenteric and Zoonotic diseases in Ireland summary, Q2 2025 continued



Disease category Disease		Q3 2024	Q3 2025	Increase/ Decrease	% Change	Year to date 2025
Non-IID Zoonotic infections	Anthrax	0	0	0	0%	0
	Brucellosis	0	3	3	NA	5
	Echinococcosis	1	1	0	0%	2
	<a href="#">Leptospirosis</a>	2	13	11	550%	18
	Plague	0	0	0	0%	0
	Q fever	1	0	1	-100%	2
	Rabies	0	0	0	0%	0
	Toxoplasmosis	0	4	4	NA	14
	Trichinosis	0	0	0	0%	0



# Campylobacter in Ireland, Q3 2025



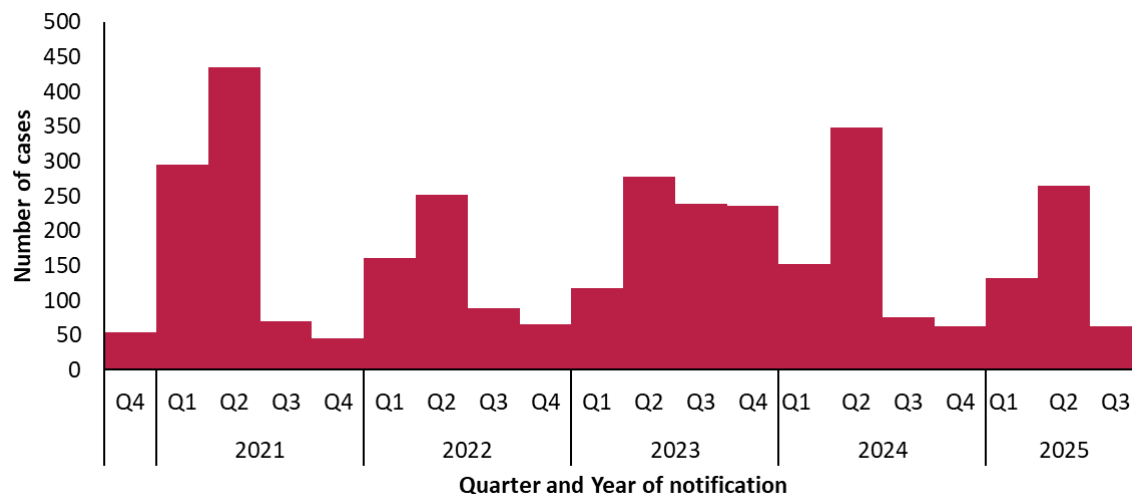
- 1216 cases of Campylobacteriosis notified in Q3 2025, 19% higher than the number notified in Q3 2024 (n=1024).
- 11% of cases were aged less than 5 years compared to 15% in Q2 2025.
- No Campylobacteriosis outbreaks were notified
- 64 Campylobacter isolates were sequenced in the sentinel Campylobacter Reference Laboratory, representing approximately 5% of campylobacteriosis cases notified.
- *C. jejuni* was most common at 89%, followed by *C. coli* (8%) and *C. lari* (2%).

**Note:** The notification procedure for Campylobacteriosis changed at the beginning of 2025 which may have contributed to the increase in notifications and lower proportion of sequenced isolates, due to the possibility of duplicate notifications

Species	Number of isolates	Proportion of sequenced isolates
<i>Campylobacter jejuni</i>	57	89%
<i>Campylobacter coli</i>	5	8%
<i>Campylobacter lari</i>	2	3%
<b>Total</b>	<b>64</b>	<b>100%</b>



# Cryptosporidiosis in Ireland, Q3 2025



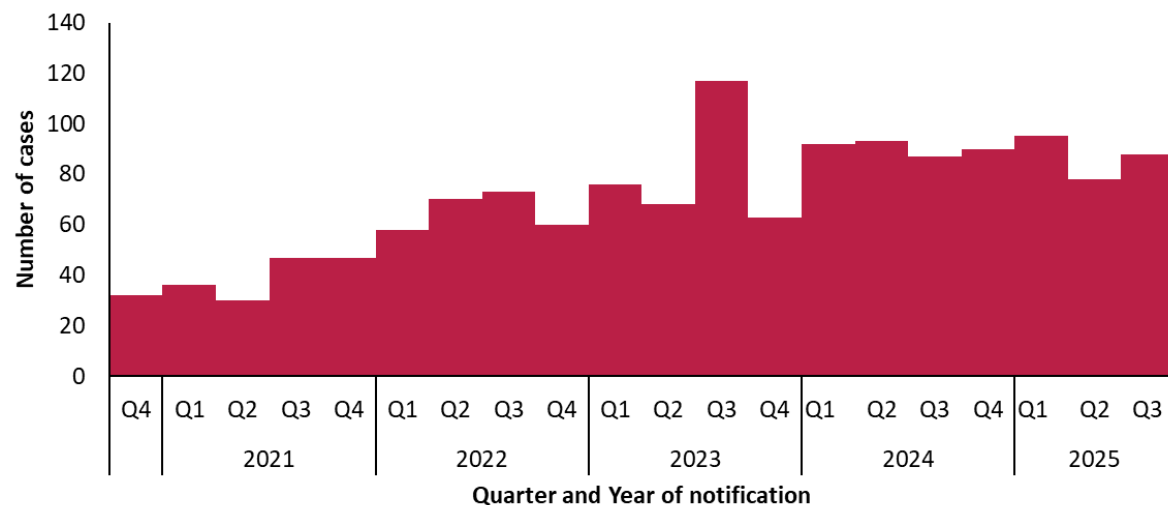
	N	% where known
Domestic	35	69%
Travel-related	16	31%
Travel status not known	12	n/a
<b>Total</b>	<b>63</b>	<b>100%</b>

Type	Outbreaks (N)	Number ill	Median ill	Range ill
Family	4	12	3	2-4
<b>Total</b>	<b>2</b>	<b>12</b>	<b>3</b>	<b>2-4</b>

- 63 cases of cryptosporidiosis notified in Q3 2025, 17% lower than in Q3 2024 (n=76)
- 4 Cryptosporidiosis outbreaks (a family outbreaks), notified in Q3 2025 – twice the number of outbreaks reported for the same time period in 2024 (n=2)
- One outbreak had a likely source of infection of a petting zoo/farm
- 69% of cases in Q3 2025 were domestically-acquired (where travel status was known).



# Giardiasis in Ireland, Q3 2025



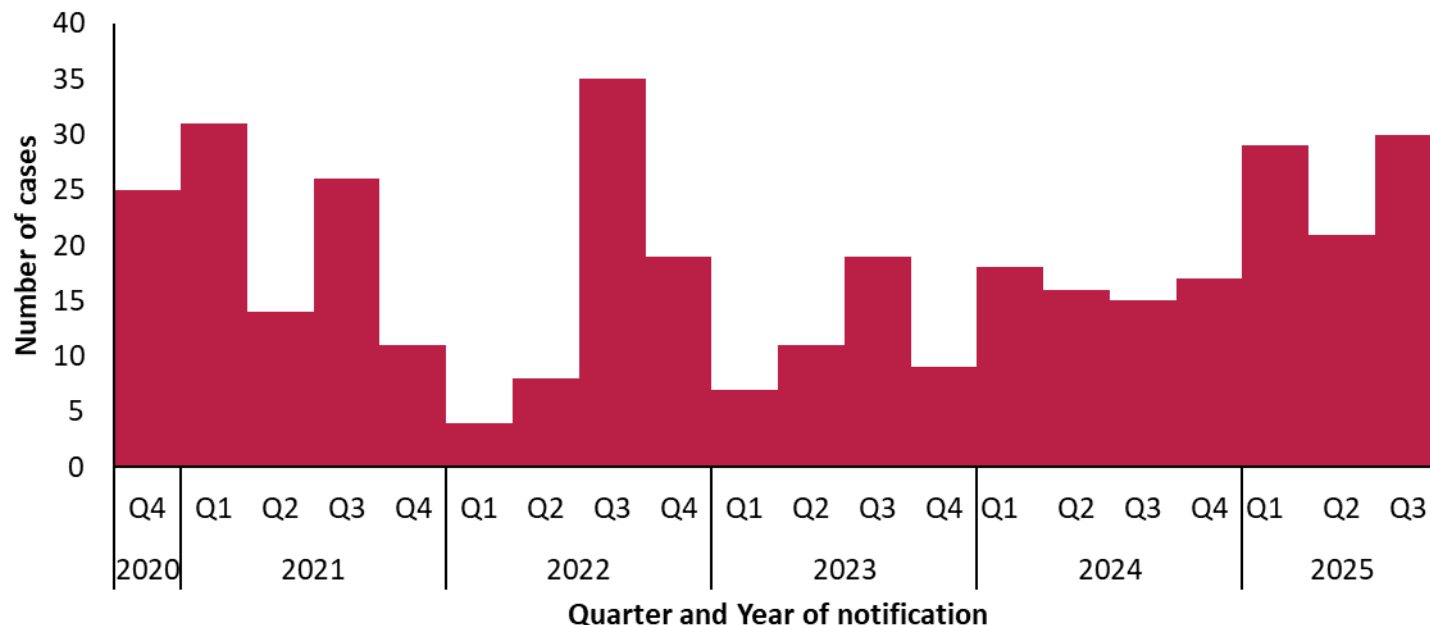
Travel status	Number of cases	% where known
Domestic	46	70%
Travel-related	20	30%
Travel status not known	22	N/A
Total	88	100%

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

- 88 cases of giardiasis notified in Q3 2025, similar to 87 notified in Q3 2024
- The male to female ratio of cases reported in Q3 2025 was 3.8, higher than all quarters since Q4 2020 (range of 1.1-2.9)
- Where travel status was known, 70% were domestically-acquired and 30% were associated with international travel; travel status was not available for 25% of cases so caution is advised when interpreting these data
- One outbreak of giardiasis was notified in Q3 2025; which was a family outbreak and the transmission route was reported as unknown.



# Hepatitis A in Ireland, Q3 2025

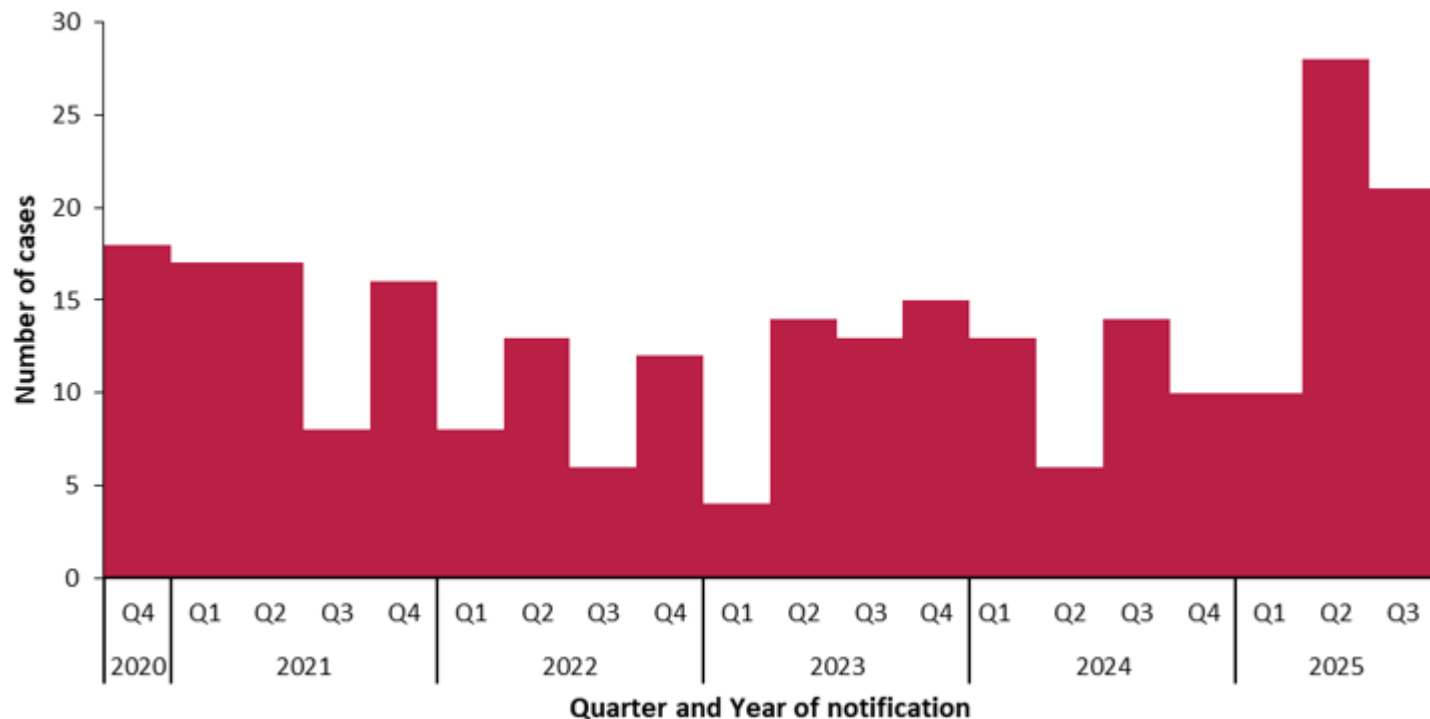


- 30 cases of Hepatitis A notified in Q3 2025, twice the number cases notified in Q3 2024 (n=15)
- A community outbreak with 16 reported as ill accounted for much of this excess; transmission was reported as person to person
- Where known, 68% of cases in Q3 2025 were reported as domestically-acquired.
- Genotyping was available for 28/30 cases in Q3 2025; of these, 18 (64.3%) were genotype IA, 4 (14.3%) were IIIA and 6 (21.4%) were IB.

	N	% where known
Domestic	17	68%
Travel-related	8	32%
Travel status not known	5	n/a
<b>Total</b>	<b>30</b>	



# Hepatitis E in Ireland, Q3 2025



- 21 cases of Hepatitis E were notified in Q3 2025, a 50% increase from 14 cases in Q3 2024
- 52% of cases were male, 43% were female, similar to previous quarters
- All cases were adults aged between 20 and 75 years old
- No Hepatitis E outbreaks were reported this quarter
- Three (14%) cases were travel-related in Q3 2025
- Three (14%) cases were diagnosed during blood donation

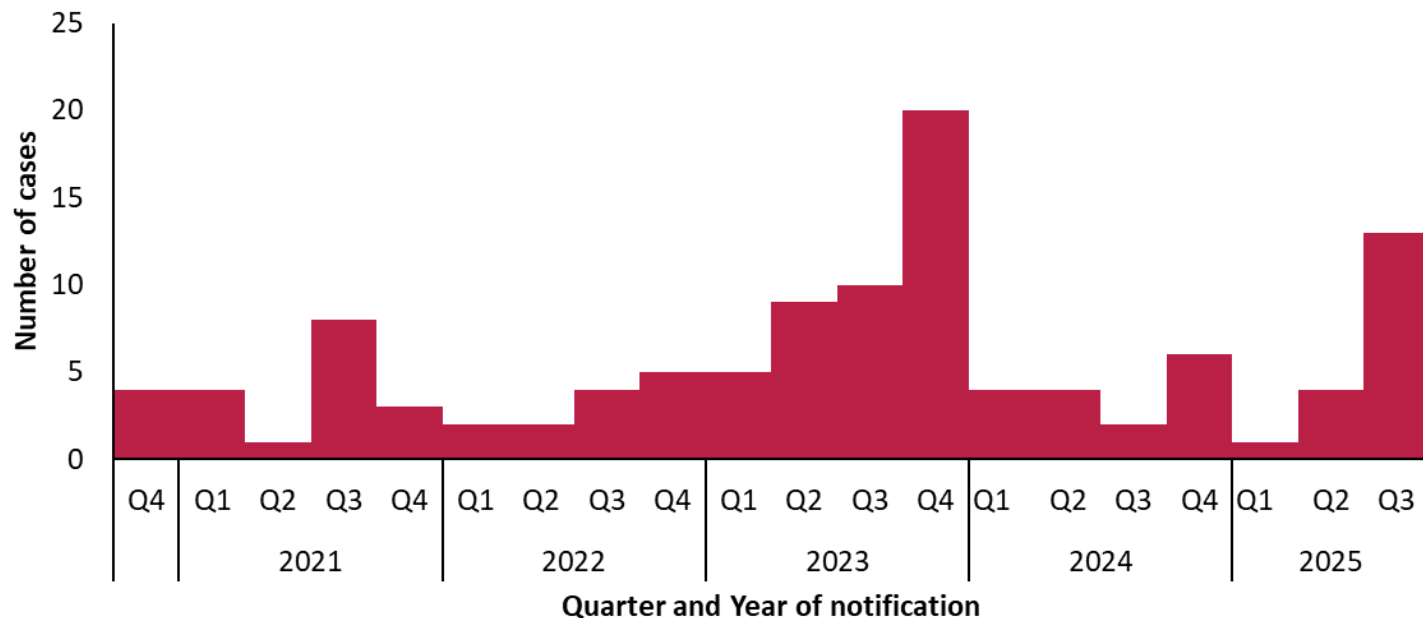
	N	% where known
Domestic	3	100%
Travel status not known	18	n/a
<b>Total</b>	<b>21</b>	



# Leptospirosis in Ireland, Q3 2025



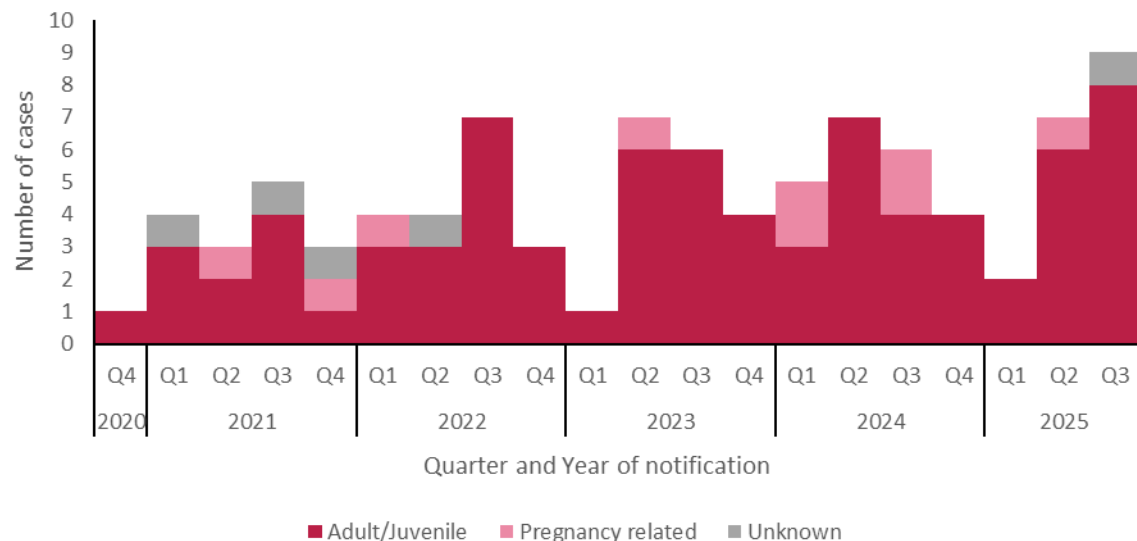
Infection believed to be acquired?	Number of cases
Accidental	1
Leisure activity	7
Occupationally	1
Residential	1
Not Specified	3
<b>Total</b>	<b>13</b>



- There were 13 notified case of leptospirosis in Q3 2025, an increase on Q3 2024 (n=2)
- In Q3 2025, 54% of notified leptospirosis infections (7/13) were acquired recreationally
  - Of the 7 recreationally acquired infections
    - 2 had acquired it internationally
    - 3 had acquired it as part of organised activities in Ireland
    - 2 had multiple possible exposures in Ireland



# Listeriosis in Ireland, Q3 2025



Adult/Juvenile case Principal Diagnosis	Number of cases
Septicaemia	4
Other	3
Not specified	1
<b>Total</b>	<b>8</b>

Serotype	Number of isolates
<i>Listeria monocytogenes</i> 1/2a	2
<i>Listeria monocytogenes</i> 4b	5
<b>Total</b>	<b>7</b>

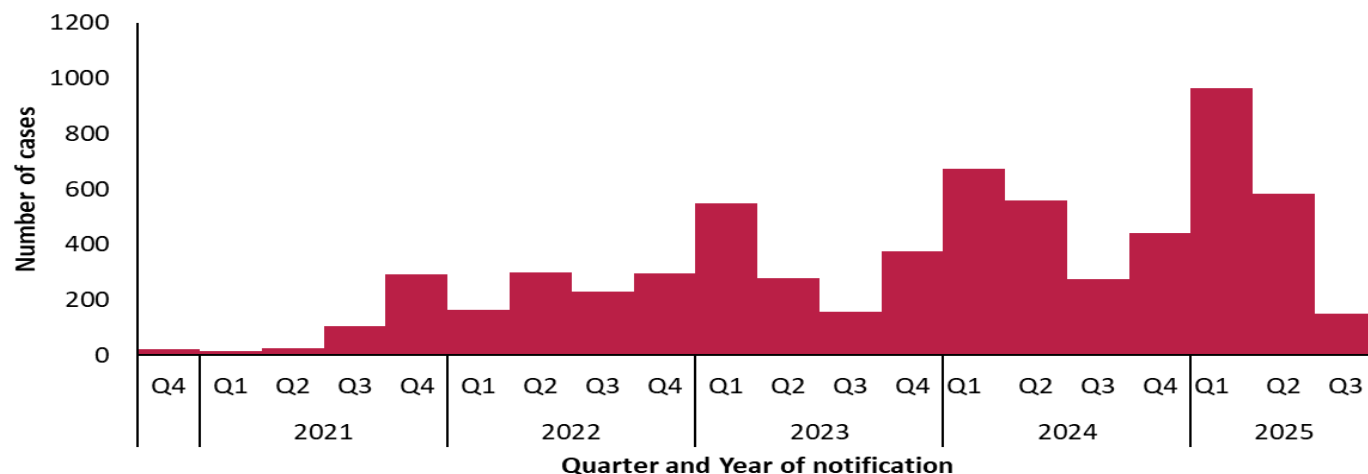
- Nine cases of listeriosis were notified in Q3 2025, compared to 6 cases notified in Q2 2024
- Eight were adult/juvenile cases and one with case type unknown were notified in Q3 2025
- Seven clinical isolates of *Listeria monocytogenes* were sequenced in the NSSLRL\*, five isolated from blood and two from abscesses
- The most frequently seen serotype in Q3 2025 was 4b
- There were no new outbreaks of listeriosis notified in Q3 2025 but there was one new case linked to continued [national foodborne listeriosis outbreak](#)

\*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.





# Norovirus and Acute Infectious Gastroenteritis (AIG) in Ireland, Q3 2025

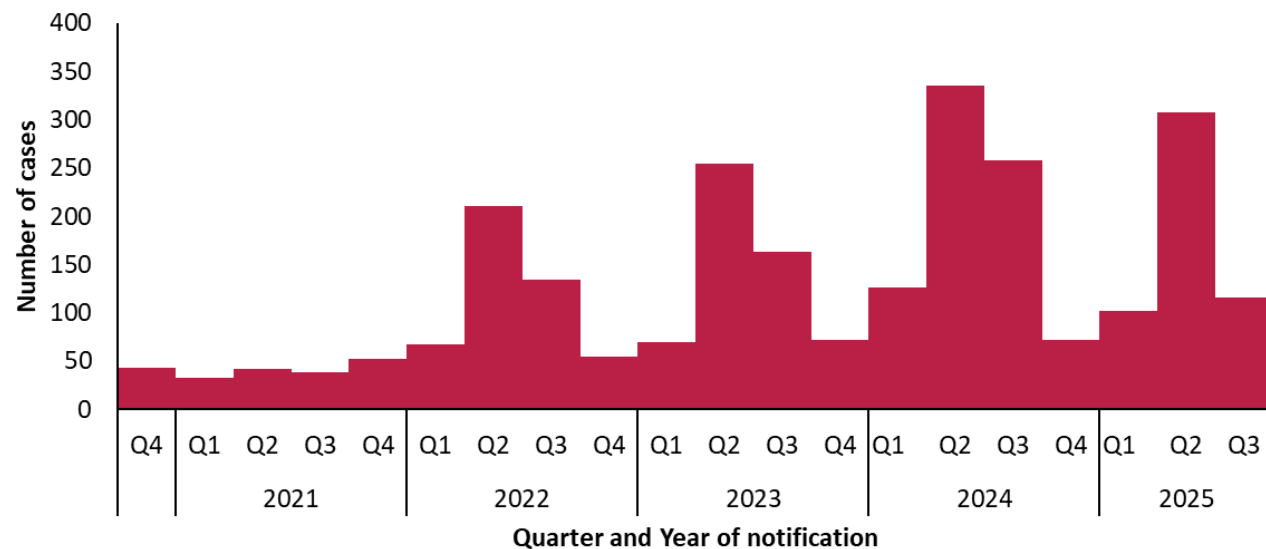


Location	Outbreaks (N)		Total Number ill		Median ill		Range ill	
	Noro	AIG	Noro	AIG	Noro	AIG	Noro	AIG
Hospital	3	4	62	10	11	3	6-45	2-3
Nursing home	2	10	43	102	22	9	10-33	3-22
Residential institution	3	1	29	22	7	22	6-16	22-22
Comm. Hosp/Long-stay unit	1	0	3	0	3	0	3-3	0
Other healthcare services	0	1	0	4	0	4	0	4-4
Total	9	16	137	138	43	38	3-45	2-22

- There were 150 notified cases of Norovirus infection in Q3 2025, compared to 276 in Q3 2024, a decrease of 46%
- 9 Norovirus and 18 AIG outbreaks were reported in Q3 2025. Of these outbreaks, all Norovirus and 16/18 AIG outbreaks occurred in health care settings. All were reported as person to person outbreaks (see table).
- The largest norovirus outbreak notified in Q3, 2025 occurred in a hospital, where the number ill was 45.
- Of 32 representative GII samples from Q3, 2025 sequenced by the NVRL, GII.17 was the most common type at 46.9% (n=15), followed by GII.4 at 18.8% (n=6). This represents a change in predominant GII genotype from Q2 2025 when GII.4 was the most common type.
- A news piece providing key messages for the public on how to manage illness and prevent further spread of disease is regularly updated on the HPSC website [Norovirus: Norovirus levels remain high in Ireland - Health Protection Surveillance Centre](#)



# Rotavirus in Ireland, Q3 2025



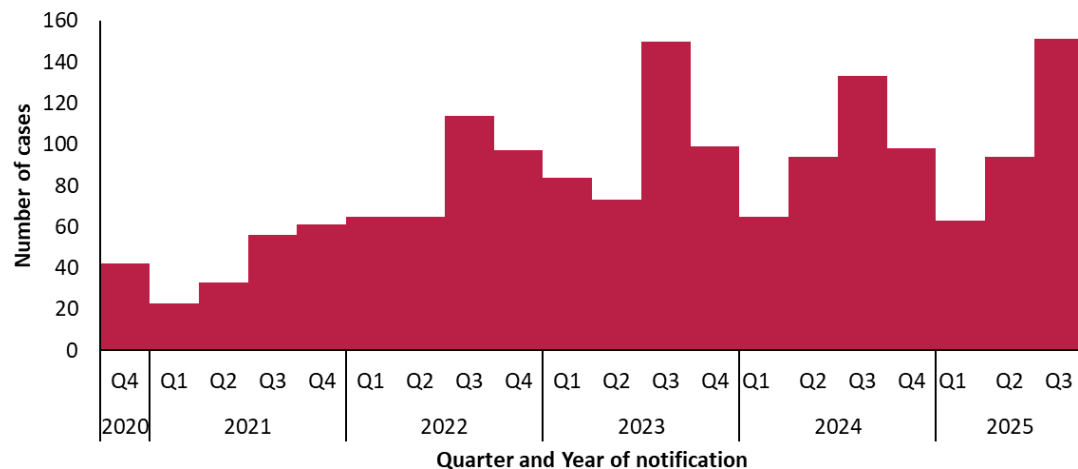
Type	Outbreaks (N)	Number ill	Median ill	Range ill
General	1	4	n/a	n/a
Family	1	2	n/a	n/a
Total	2	6	n/a	n/a

- 116 cases of Rotavirus were notified in Q3 2025, 55% lower than in Q3 2024 (n= 258)
- 78% of cases were aged 5 years or under (22% of cases were aged <1 year, 22% were aged 1 year and 28% were aged 2-4 years at the time of notification).
- There were two Rotavirus outbreak notified in Q3 2025. One was a general outbreak with four people ill in a childcare facility, and the second, a family outbreak with 2 people ill and outbreak setting notified as “other”.
- Rotarix™ vaccine was introduced in Ireland in December 2016 for all babies born from 1st October 2016 onwards<sup>2</sup>
- 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/immunisationuptake/statistics/>

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](https://www.hpsc.ie/a-z/gastroenteric/rotavirus/epidemiologicaldata/annualreportsonrotavirus/2018_Rota_20190415_v1.1.pdf)



# Salmonellosis in Ireland, Q3 2025



Outbreak Type	Number of outbreaks	Total number ill	Range number ill
Family	3	6	N/A
General	1	10	N/A
Total	4	16	2-10

Serotype	Travel status			Total
	Domestic	Travel	Unknown	
S. Typhimurium inc. monophasic Typhimurium	23	4	4	31
S. Enteritidis	5	15	1	21
Other serotypes	35	36	28	99
Total	63	55	33	151

- 151 cases of salmonellosis were notified in Q3 2025, 14% higher than in Q3 2024 (n=133)
- Where travel history was known (n=117), 54% of cases were domestically-acquired and 46% were travel-associated
- Infection with S. Typhimurium (37%) was more common than S. Enteritidis (8%) among domestically-acquired cases, while infection with S. Enteritidis (27%) was more common than S. Typhimurium (7%) among travel-associated cases
- Transmission for the general outbreak was reported as foodborne. For the three small family outbreaks, transmission route was reported as foodborne for two of the family outbreaks and person-to-person for the third family outbreak.

# **Genomic analysis of non-typhoidal Salmonella in Ireland, Q3 2025**



Serotype	Number of isolates	Proportion of isolates
S. Typhimurium inc. monophasic Typhimurium	33	26%
S. Enteritidis	25	20%
S. Newport	8	6%
S. Saintpaul	6	5%
S. Stanley	4	3%
S. Thompson	4	3%
Other serotypes	48	37%
<b>Total</b>	<b>128</b>	<b>100%</b>

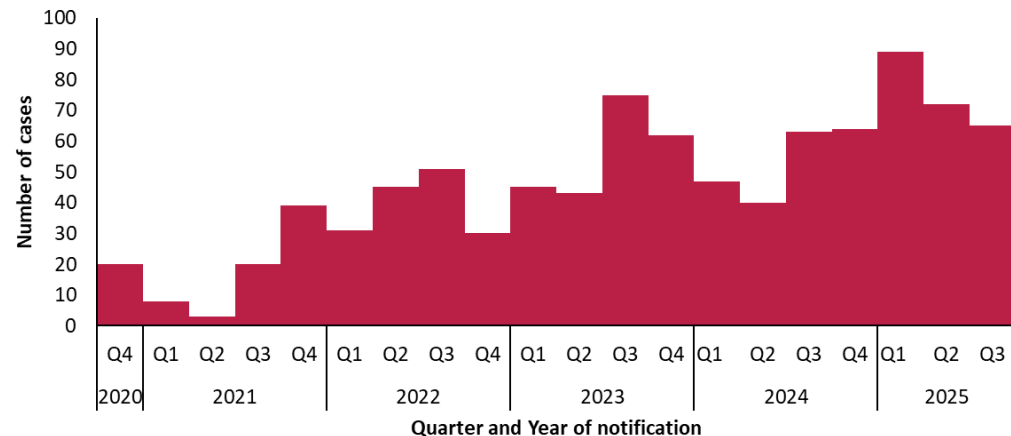
Specimen type	Number of isolates
Faeces	119
Blood	6
Urine	3
<b>Total</b>	<b>128</b>

Antimicrobial class	Isolates with resistance markers	
	Number	Proportion
Tetracycline	28	22%
Ampicillin	26	20%
Sulphonamides	24	19%
Quinolones	20	16%
Trimethoprim	6	5%
Chloramphenicol	7	5%
Azithromycin	3	2%
Aminoglycosides	1	1%
Third Generation Cephalosporins	0	0%

- 128 non-typhoidal non-duplicate Salmonella (NTS) isolates were sequenced in the NSSLRL in Q3 2025\*
- The most frequently seen serotypes were S. Typhimurium and S. Enteritidis
- 5% of isolates were from bloodstream infections
- Antimicrobial resistance is predicted based on whole genome sequencing (WGS) 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 definition](#).

# Shigellosis in Ireland, Q3 2025



Travel	Child		Adult Female		Adult Male		Total	
	N	%	N	%	N	%	N	%
Domestic	2	22%	2	17%	18	42%	22	34%
Travel - Europe	0	0%	0	0%	5	12%	5	8%
Travel - Outside Europe	6	67%	7	58%	4	9%	17	26%
Unknown	1	11%	3	25%	16	37%	20	32%
<b>Total</b>	<b>9</b>	<b>100%</b>	<b>12</b>	<b>100%</b>	<b>43</b>	<b>100%</b>	<b>65</b>	<b>100%</b>

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

- 65 cases of shigellosis were notified in Q3 2025 (44 confirmed and 21 probable), similar to 63 in Q3 2024. The number of notifications was similar in Q3 compared to Q3 2024 but continued the trend of higher-than-expected numbers of notifications of shigellosis for 2025.
- Where travel history was known (68%), 50% were domestically-acquired and 50% were associated with international travel
- Adult males were more likely to have been infected in Ireland or another European country, while adult females were more likely to have been infected outside Europe
- 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](#)
- One small family outbreak were notified during Q3 2025. Probable transmission route was reported as person-to-person.





# Genomic analysis of Shigella in Ireland, Q3 2025



Serotype	Number of isolates	Proportion of isolates
<i>Shigella flexneri</i>	19	68%
<i>Shigella sonnei</i>	9	32%
<i>Shigella dysenteriae</i>	0	0%
<b>Total</b>	<b>28</b>	<b>100%</b>

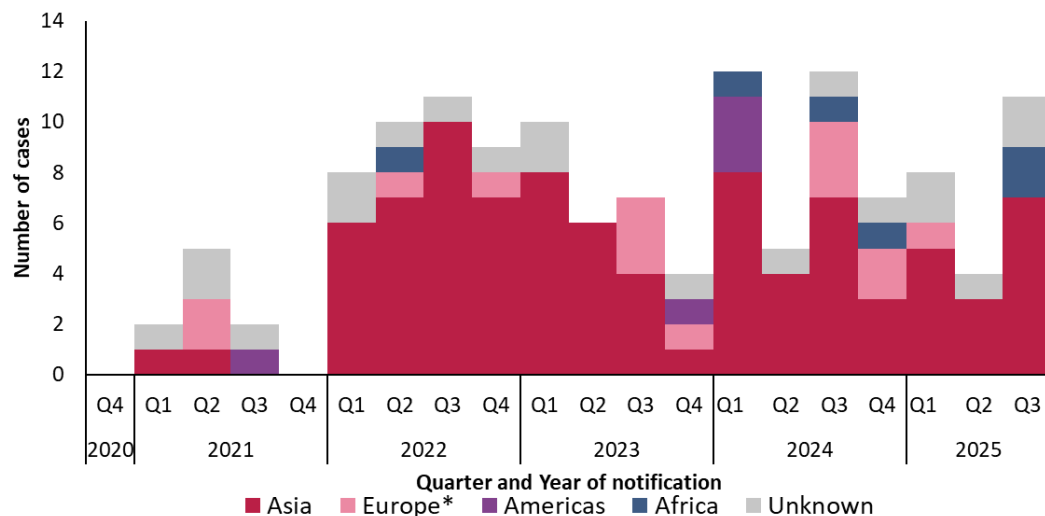
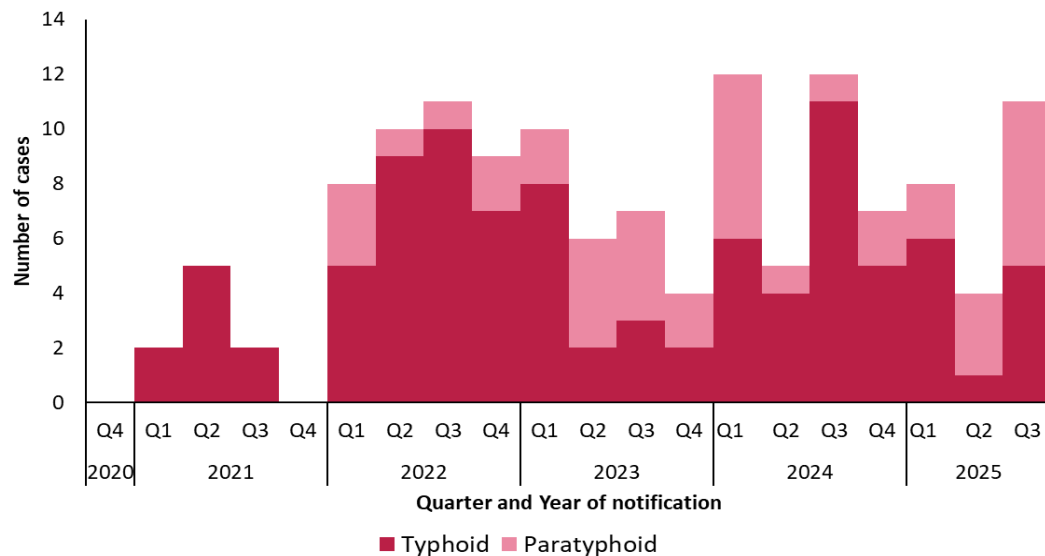


- 28 non-duplicate *Shigella* isolates were sequenced in the NSSLRL in Q3 2025\*
- *S. flexneri* was the most frequently seen serotype and the number of *S. sonnei* isolates was similar to Q1 having been unexpectedly low in Q2 2025
- Antimicrobial resistance is predicted based on whole genome sequencing (WGS) data. In Q3 2025:
  - 64% of isolates were predicted to be quinolone resistant, higher than in Q2 2025 (55%) and lower than in Q3 2024 (81%). Quinolone resistance remains common
  - 61% were predicted to be azithromycin resistant, slightly higher than 52% in Q3 2024
  - 43% were predicted to be resistant to third generation cephalosporins, higher than 22% in Q3 2024
  - 25% were predicted to be resistant to all three classes of antimicrobials, higher than 19% in Q3 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, 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.



# Typhoid and Paratyphoid in Ireland, Q3 2025



- Five cases of typhoid were notified in Q3 2025, lower than eleven cases notified in Q3 2024
- Six cases of paratyphoid were notified in Q3 2025, higher than one case notified in Q3 2024
- Where travel history was known (82%), the majority of cases travelled to Asia, most frequently to India and Pakistan
- One typhoid outbreak and one paratyphoid outbreak were notified in Q3 2025. Both outbreaks were travel related with 2 people ill in each 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.





# Genomic analysis of *Salmonella* Typhi and Paratyphi in Ireland, Q3 2025



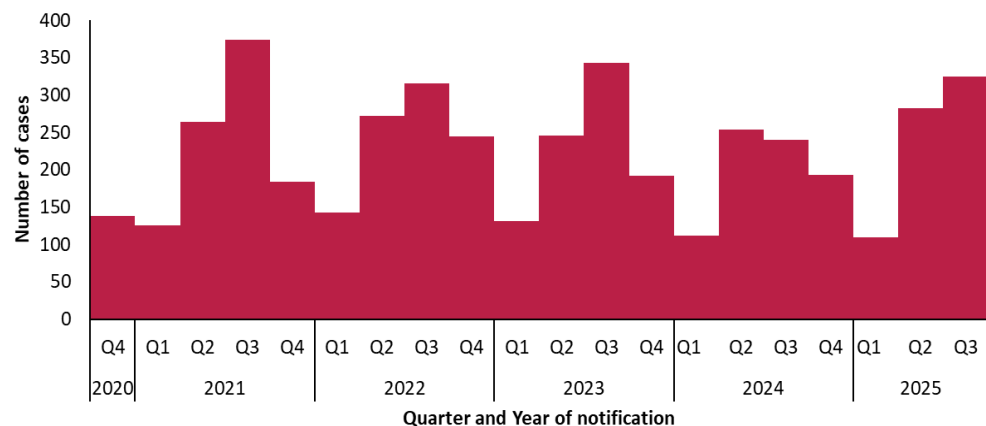
Antimicrobial class	Isolates with resistance markers	
	Number	Proportion
Quinolones	12	92%
Aminoglycosides	0	0%
Ampicillin	0	0%
Azithromycin	0	0%
Chloramphenicol	0	0%
Sulphonamides	0	0%
Tetracycline	0	0%
Third Generation Cephalosporins	0	0%
Trimethoprim	0	0%

- Thirteen non-duplicate isolates of *Salmonella* Typhi (n=5) or *S. Paratyphi* A (n=8) were sequenced in the NSSLRL in Q2 2025\*
- Antimicrobial resistance is predicted based on whole genome sequencing (WGS) data:
  - Resistance to quinolones was the only type of predicted antimicrobial resistance reported in Q3 2025, as was the case for Q2 2025
  - None were predicted to be resistant to ampicillin, chloramphenicol, sulphonamides, tetracycline and trimethoprim, reduced from the proportions reported in Q4 2024
  - None were predicted to be resistant to third generation cephalosporins 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, Q3 2025



	HUS	
	N	% (where known)
Yes	9	4%
No	223	96%
Unknown	20	N/A
Not specified	73	N/A
Total	325	N/A

Type	Outbreaks (N)	Total number ill	Range ill
General	3	35	2-23
Family	17	38	2-3
Total	20	73	2-23

- 325 cases of VTEC were notified in Q3 2025, 36% higher than in Q3 2024 (n=239) and similar to Q3 2023
- 130 (40%) cases were hospitalised
- Nine (4%) cases of HUS in Q3 2025, compared to 10 (6%) cases of HUS in Q3 2024
- 20 VTEC outbreaks were reported; 3 were general outbreaks including 2 outbreaks in childcare facilities with a total of 12 people ill (transmission for all reported as person to person). Transmission was suspected as foodborne for the other general outbreak and 23 people ill.
- 17 family outbreaks were also reported, transmission was reported as person to person for 13 of these outbreaks, person to person and foodborne for one outbreak and person to person and waterborne for one outbreak. Transmission was not specified for the remaining family outbreak outbreak.

Patient type	Number of cases	Proportion of cases
GP Patient	113	35%
Hospital Inpatient	130	40%
A&E Patient/Outpatient	53	16%
Other	20	6%
Unknown	9	3%
Total	325	100%



# Genomic analysis of VTEC in Ireland, Q3 2025



Serogroup	Verotoxin genes	N	%	eae positive		ehxA positive	
				N	%	N	%
<i>E. coli</i> O157	<i>vt1</i>	0	%	N/A	N/A	N/A	N/A
	<i>vt2</i>	29	57%	29	100%	29	100%
	<i>vt1</i> + <i>vt2</i>	22	43%	21	95%	22	100%
<i>E. coli</i> O26	<i>vt1</i>	16	25%	16	100%	16	100%
	<i>vt2</i>	10	16%	10	100%	10	100%
	<i>vt1</i> + <i>vt2</i>	38	59%	37	97%	38	100%
Other serogroups	<i>vt1</i>	4	8%	3	75%	3	75%
	<i>vt2</i>	3	6%	1	33%	3	100%
	<i>vt1</i> + <i>vt2</i>	41	86%	21	51%	26	63%

- 233 isolates were sequenced in the VTEC Reference Laboratory\*
- The most common serogroups reported among culture confirmed cases were as follows: O26 (28%; n=64, O157 (22%; n=51) and O145 (6%, n=14)
- All O157 were either VT2 (57%) or VT1+2 (43%)
- *eae* and *ehxA* positivity was 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, cases of VTEC may be notified where isolates are not available for sequencing. Please see [here](#) for Irish case definition for VTEC

N/A= not applicable i.e. where number or proportion is zero