HSC Public Health Agency

Interim Annual Gastrointestinal Surveillance Report 2025

Gastrointestinal, Zoonosis and Emerging Infections Surveillance Team

HSC Public Health Agency

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Summary

- Confirmed notifications of *Campylobacter spp* decreased by 12.6 % (n=1476) compared with 2024
- Confirmed notifications of *Cryptosporidium spp* decreased by 12.7% (n=338) in 2025, consistent with a decreasing trend observed in 2024 (14.8%, n= 387).
- Confirmed notifications of *E. coli* O157 increased to 43 cases, more than double the number reported in 2024(n= 20).
- Confirmed notifications of *Giardia* decreased by 24.9% (24.9%, n=160).
- Confirmed notifications of *Salmonella* increased by 10.1% (n=218) in 2025. Of these cases 40% (n=87) reported recent travel outside the UK and Ireland.
- Confirmed notifications of *Shigella* decreased by 12.5%. 51.4% (n=18) of cases reported recent travel outside the UK and Ireland

Introduction

This report provides is an interim update on the epidemiology of gastrointestinal infections in Northern Ireland. The report uses data from the PHA case and outbreak management system and includes laboratory confirmed notifications reported to the PHA by clinicians and laboratories. Reference laboratory and genomic data are not included work with United Kingdom Health Security Agency (UKHSA) reference laboratory services is ongoing with the aim of incorporating these data for future reports. Recent changes to the Health and Social Care laboratory information management systems, have affected data flows, and work is ongoing to re-establish laboratory-based surveillance. The findings presented in this report are based on provisional data and may revision as additional data sources become available.

Methods are described at the end of the report.

Campylobacter

Campylobacter spp. is the most commonly reported cause of gastrointestinal infection in Northern Ireland (NI). Infection typically presents with diarrhoea, abdominal pain, malaise, fever, nausea, and vomiting and is usually self-limiting. Confirmed notifications increased between 2021 and 2023 (n=1711, n=1790, n=1880, respectively), following reduced transmission during the COVID-19 pandemic. In recent years, confirmed notifications subsequently declined by 10.1% (n=1689) in 2024, and by a further 12.6% (n=1476) in 2025 (Figure 1). The incidence rate in 2025 was 76.56 per 100,000 population (Figure 1).

Cases followed a seasonal pattern with notifications increasing in May, peaking in June and July and declining from September onwards (Figure 2). This pattern was observed in 2025. In contrast, an atypical increase was observed between August and October in 2024 (Figure 2). In 2025, incidence rates were higher in males (87.6 per 100,000 population) than in females (62.5 per 100,000 population, figure 3). Rates decreased across most age groups in line with overall trends. However, the incidence rate in children aged under 1 year increased from 204 per 100,000 population in 2022 to 231.3 per 100,000 population in 2025 (Figure 4).

Table 1. Confirmed notifications of *Campylobacter* by year, 2015–2025

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
n	1351	1268	1413	1442	1442	1255	1711	1790	1880	1689	1476

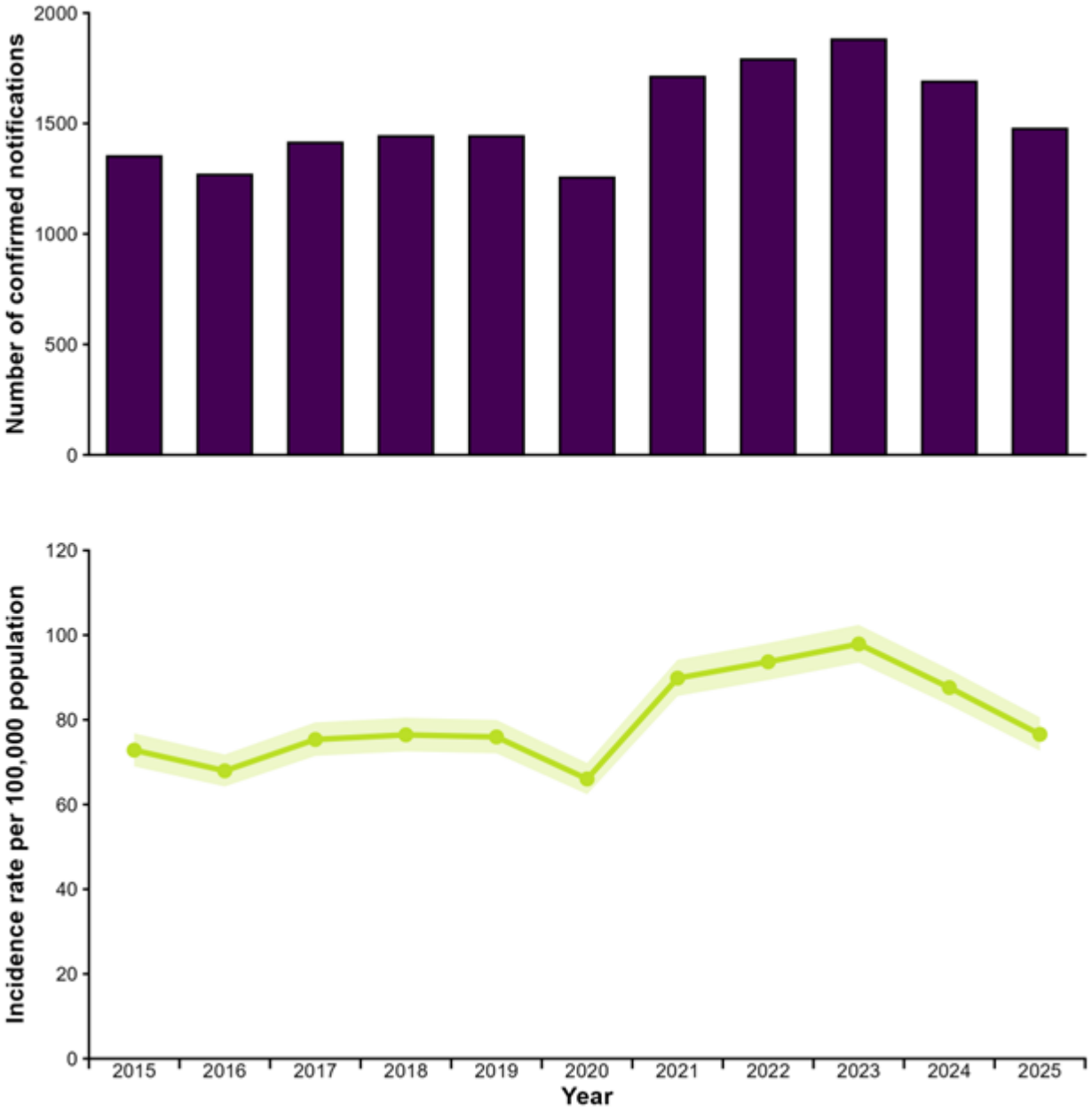

Figure 1. Confirmed *Campylobacter* notifications and incidence rates in NI, 2015–2025

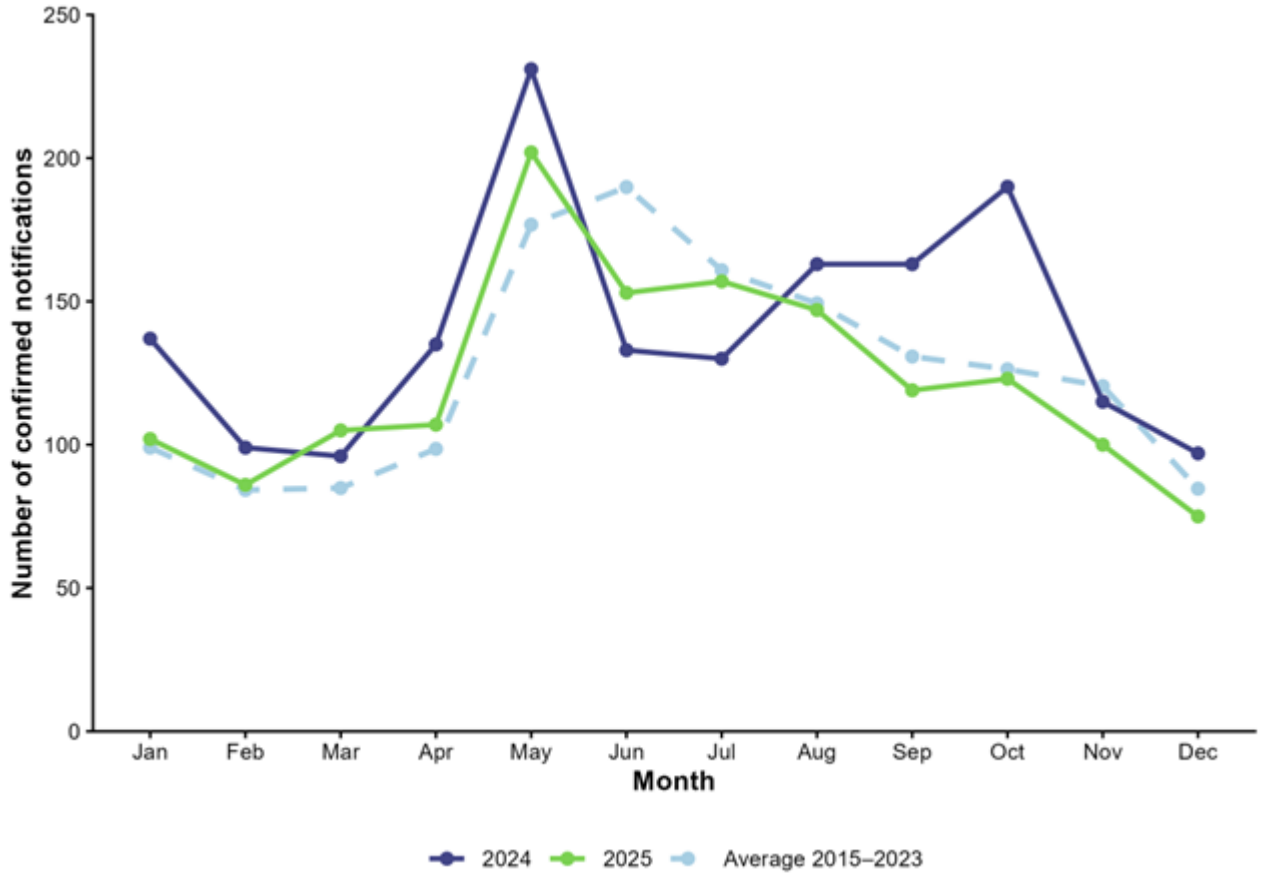

Figure 2. Monthly confirmed *Campylobacter* notifications in NI, 2024–2025 compared with the monthly average for 2015–2023

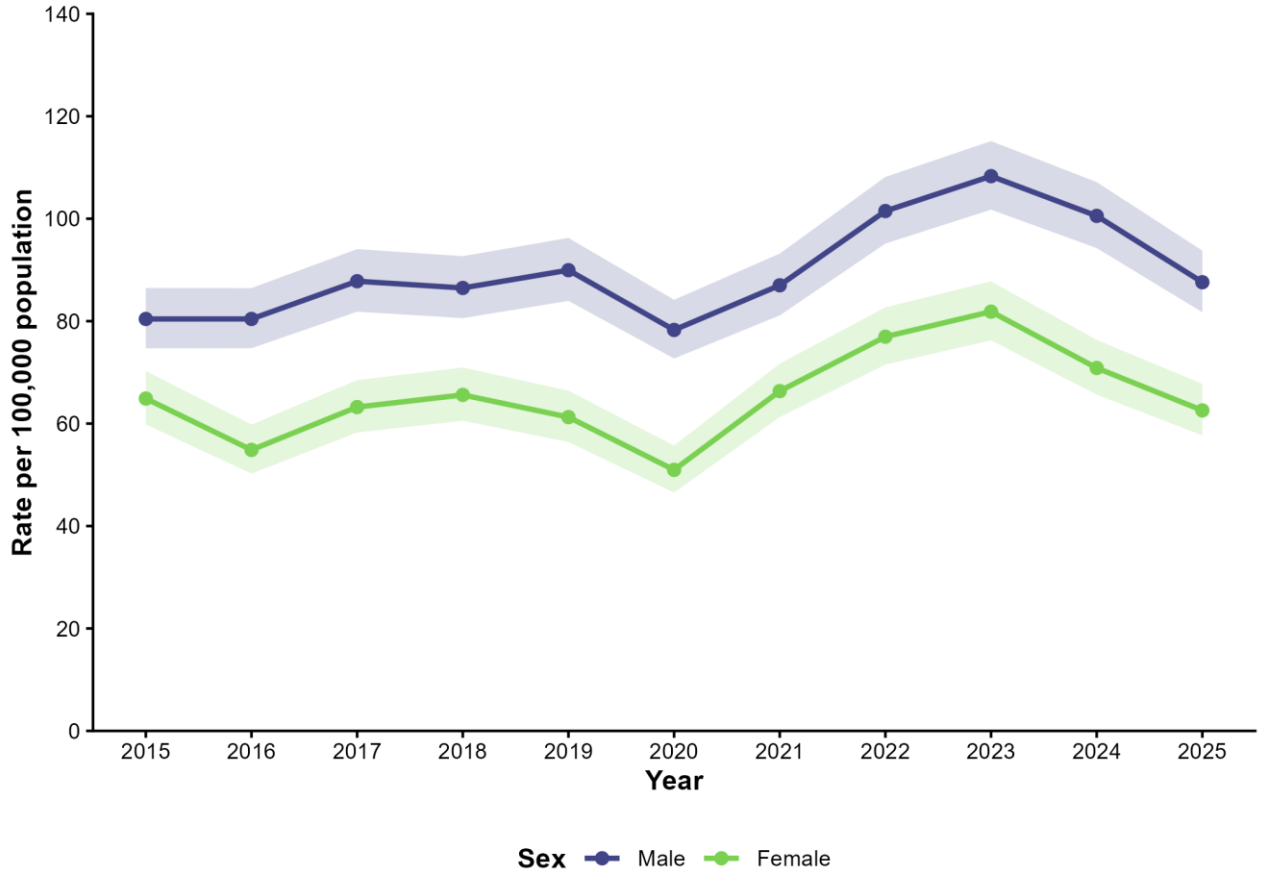

Figure 3. Confirmed *Campylobacter* incidence rates per 100,000 population in NI, by sex, 2015–2025

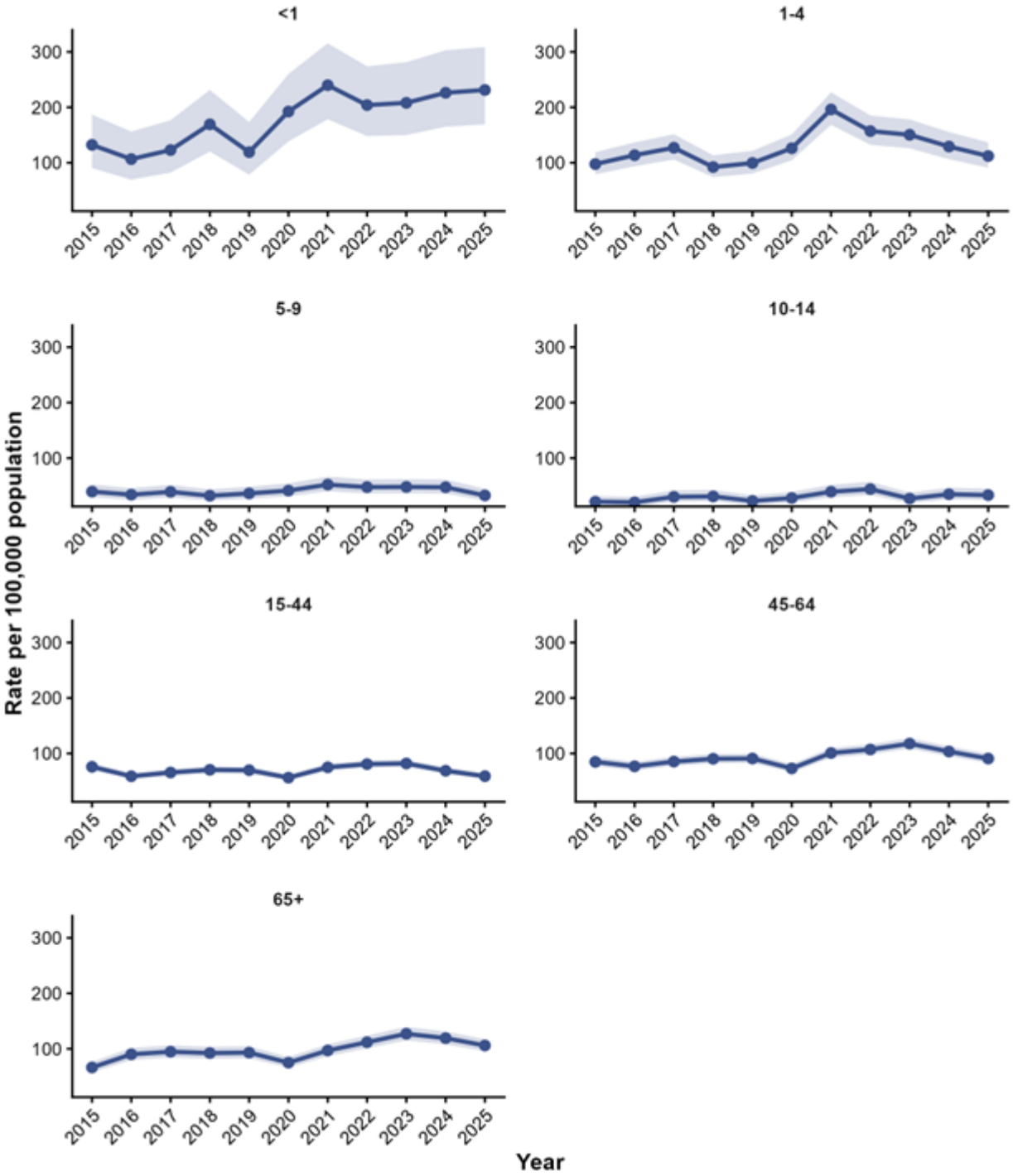

Figure 4. Confirmed *Campylobacter* incidence rates per 100,000 population in NI, by age group, 2015–2025

Cryptosporidium

Cryptosporidiosis is a diarrhoeal illness caused by *Cryptosporidium spp,* a protozoal parasite. Symptoms typically include diarrhoea and may last between two days to four weeks. The infection can be more severe in immunocompromised individuals. Transmission occurs through ingestion of oocysts, including via contaminated water and zoonotic exposure, particularly through contact with infected animals

Confirmed notifications of *Cryptosporidium* fluctuated between 2015 and 2023. In recent years, notifications have declined, with 338 in 2025, representing a 12.7% decrease from 2024. The incidence rate of *Cryptosporidium* infection in 2025 was 17.5 per 100,000 population.

Incidence rates were similar between males and females in the time period although slight variation was observed. In 2024, rates were marginally higher in males (17.2 per 100,000 population) than females (17.0 per 100,000). In 2025, the highest incidence rate was observed in children aged 1-4 years (113.3 per 100,000 population) consistent with patterns observed in previous years (Figure 8).

Table 2. Confirmed notifications of *Cryptosporidium* by year, 2015–2025

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
n	196	261	244	288	275	234	431	285	454	387	338

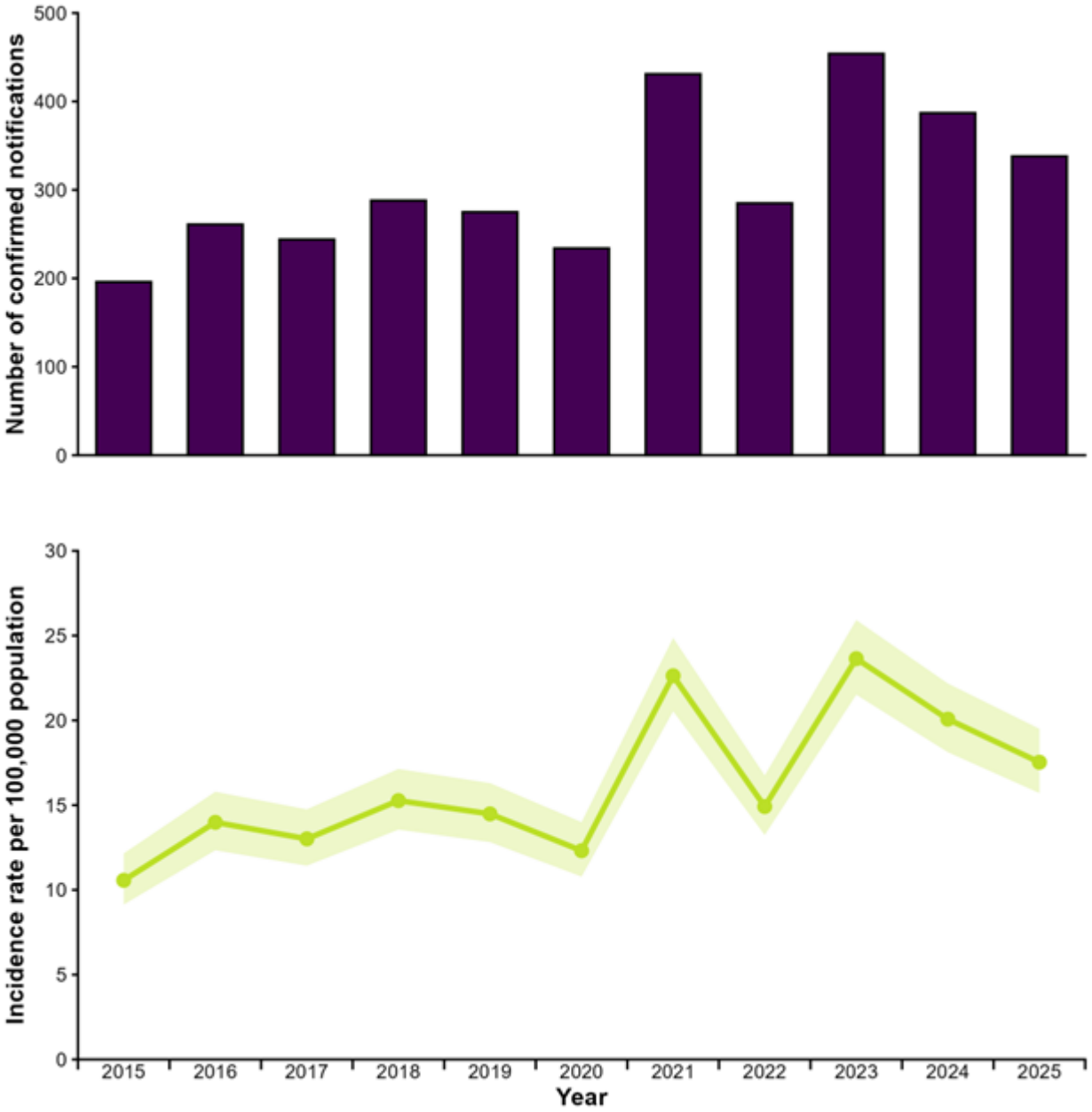

Figure 5. Confirmed *Cryptosporidium* notifications and incidence rates in NI, 2015–2025

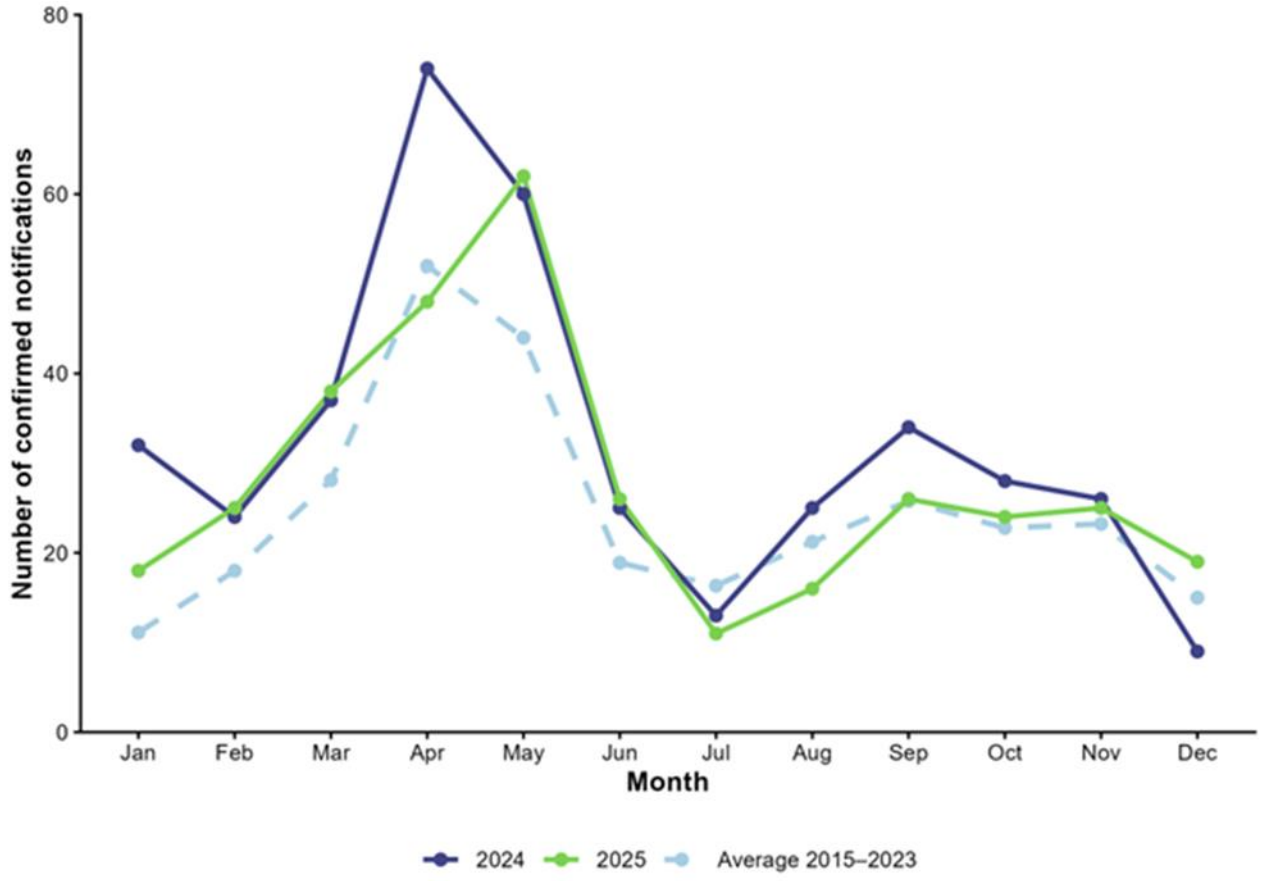

Figure 6. Monthly confirmed *Cryptosporidium* notifications, 2024–2025 compared with the monthly average for 2015–2023

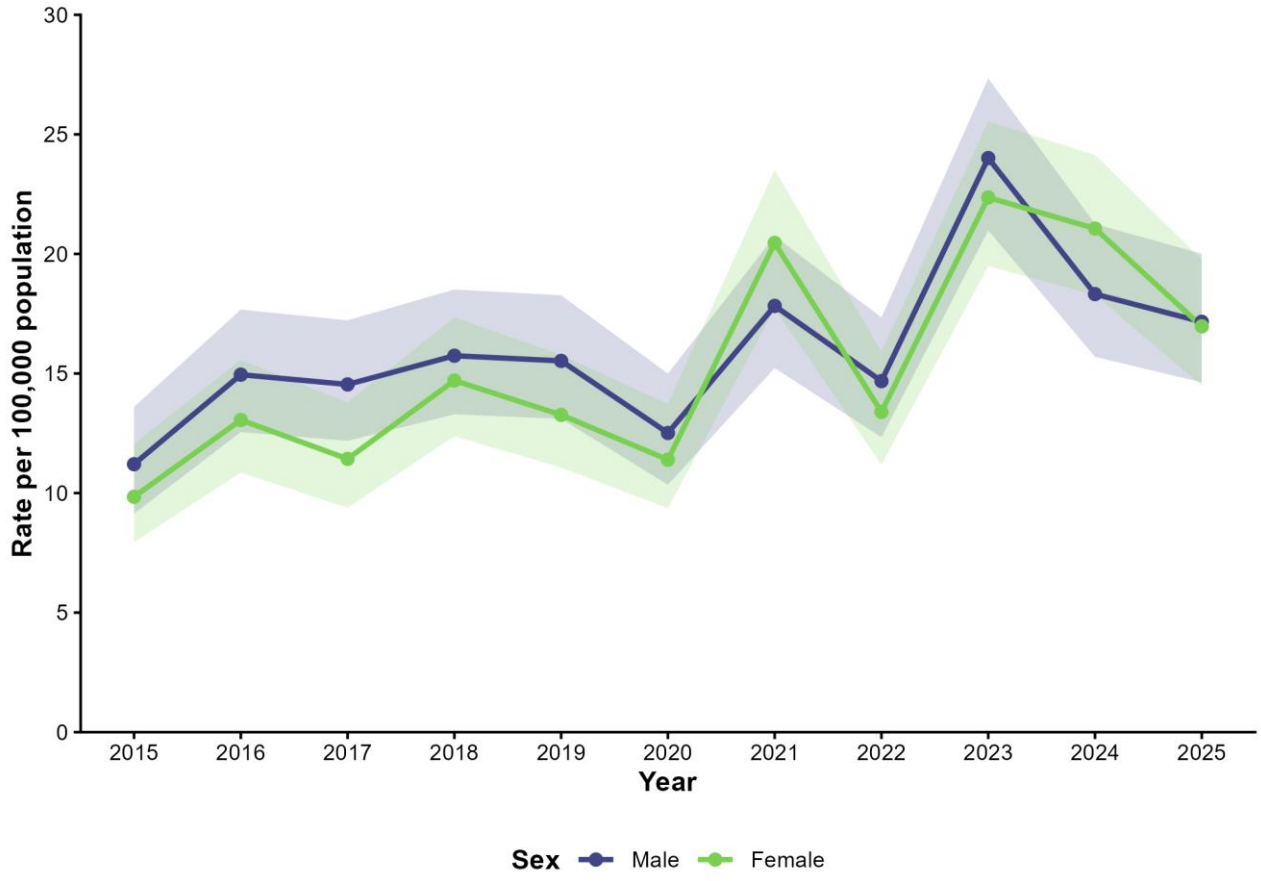

Figure 7. Confirmed *Cryptosporidium* incidence rates per 100,000 population in NI, by sex, 2015–2025

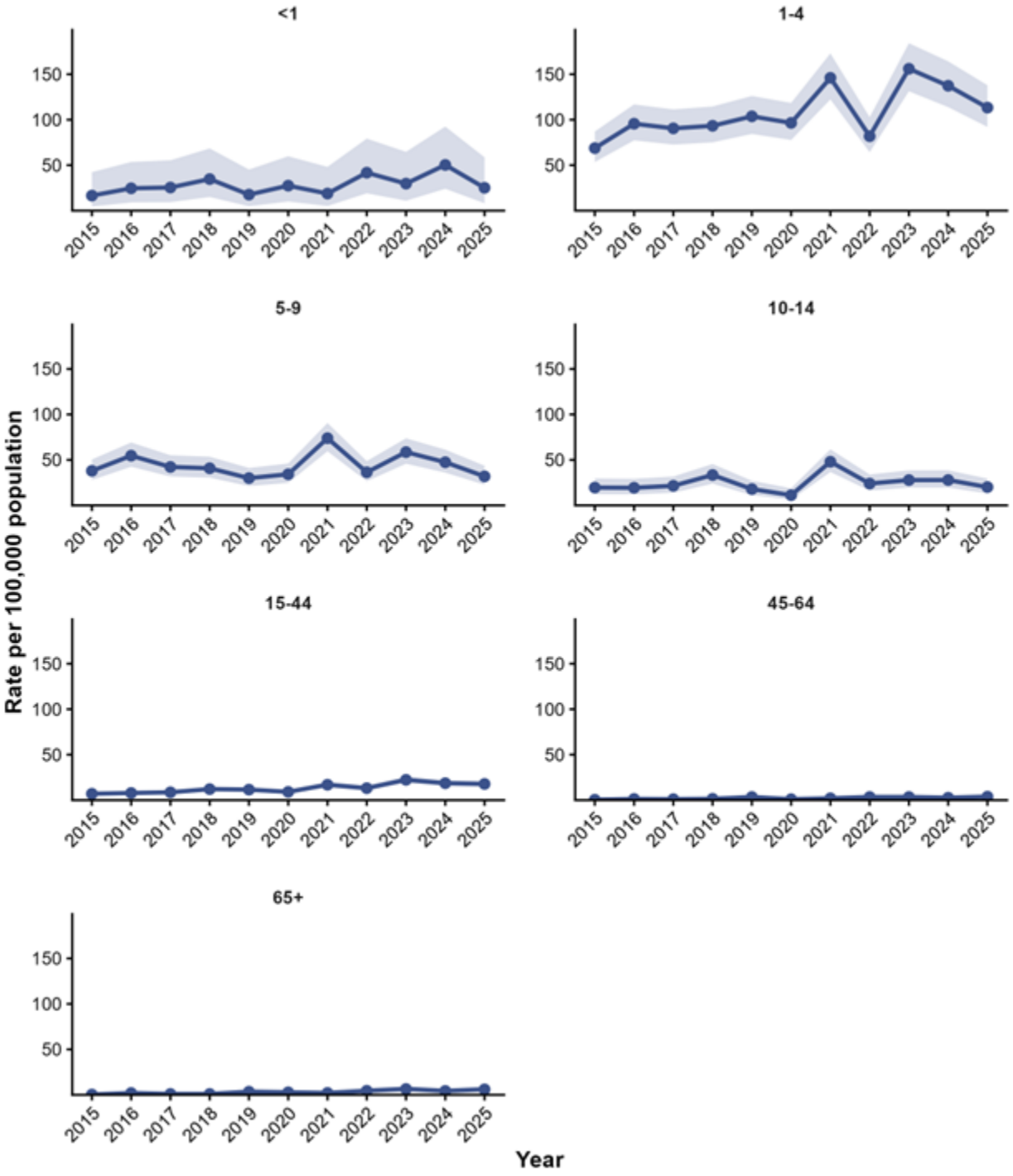

Figure 8. Confirmed *Cryptosporidium* incidence rates per 100,000 population in NI by age group, 2015–2025

Shiga toxin-producing Escherichia coli (STEC)

Escherichia coli is a bacterial cause of gastroenteritis. Clinical presentation ranges from mild gastrointestinal illness to severe bloody diarrhoea. A small proportion of cases may develop haemolytic uraemic syndrome (HUS), a serious complication characterised by acute kidney injury. Shiga toxin-producing *Escherichia coli* (STEC) are strains that produce Shiga toxins and are associated with more severe disease.

E. coli O157 is one of the most reported STEC serogroups and is associated with more severe clinical outcomes, including a higher risk of HUS. Enhanced characterisation of non-O157 STEC is ongoing, and reporting of additional serogroups is expected to improve as surveillance systems develop.

Changes in case ascertainment should be considered when interpreting trends. Increased use of reference laboratory testing since 2022 has resulted in a proportion of probable cases being subsequently confirmed, which may contribute to observed increases in confirmed notifications.

In Northern Ireland, detection of Shiga toxin genes by PCR is used to classify cases as probable, pending culture or reference laboratory confirmation. This supports early public health risk assessment and differs from UKHSA case definitions, where confirmation typically requires culture or equivalent microbiological evidence. This difference should be considered when comparing surveillance data across UK jurisdictions.

The incidence rate of confirmed STEC notifications increased between 2021 and 2024 from 4.62 to 12.1 per 100,000 population. In 2025, the incidence rate of confirmed notifications was 11.1 per 100,000 population (Figure 9).

Incidence rates were similar between male and females over the time period, although rates have been higher in females in recent years (Figure 11). Rates increased in children aged under 1 year and 1-4 years from 2020 onwards (Figure 12).

In 2025, 43 confirmed cases of *E. coli* O157 were reported with an overall incidence rate of 2.23 per 100,000 population.

Table 3. Confirmed notifications of *E. coli* STEC in NI, 2015–2025.

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
n	66	134	84	123	75	80	88	168	207	234	213

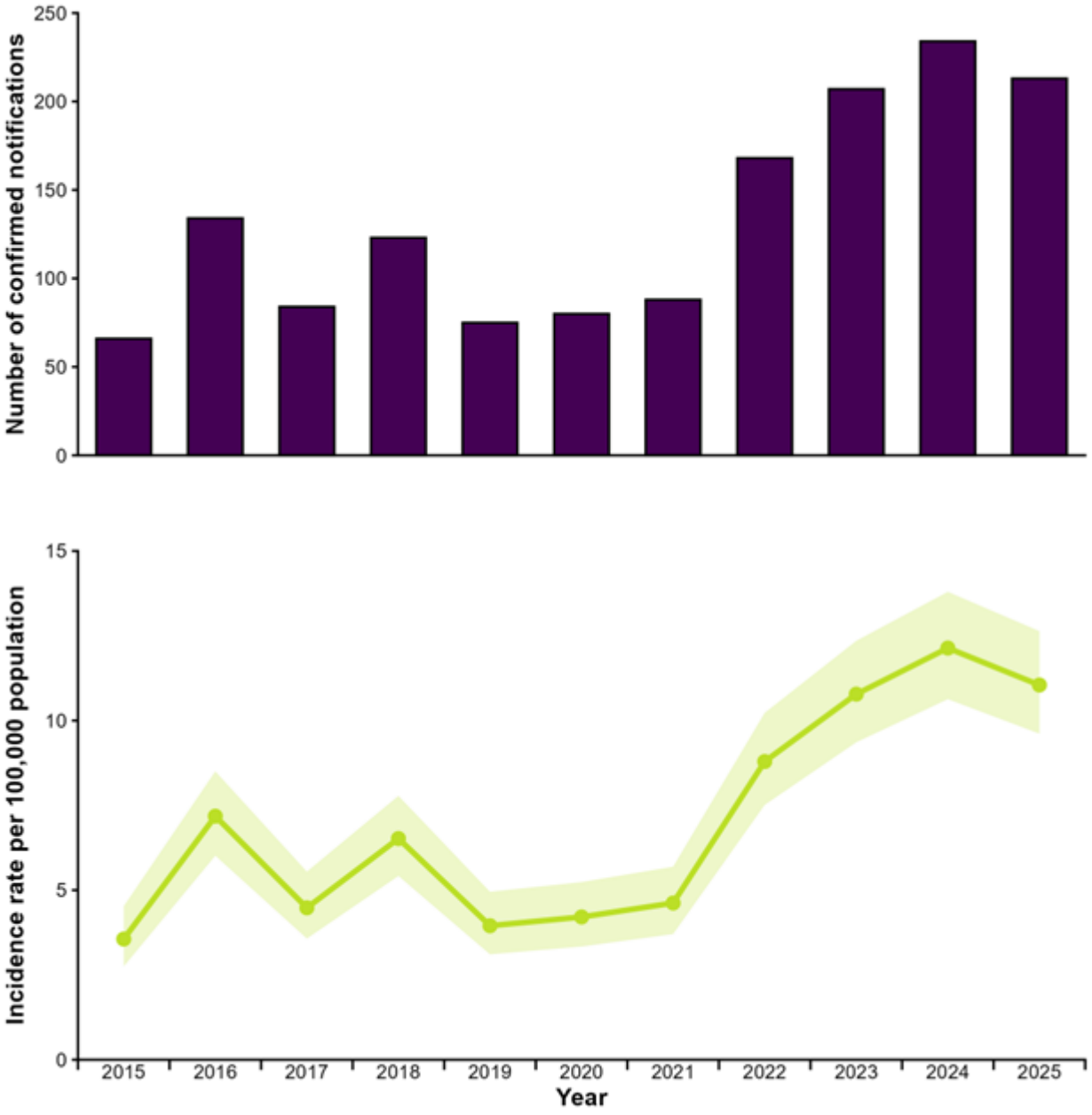

Figure 9. Confirmed *E.coli* STEC notifications and incidence rates in NI, 2015–2025

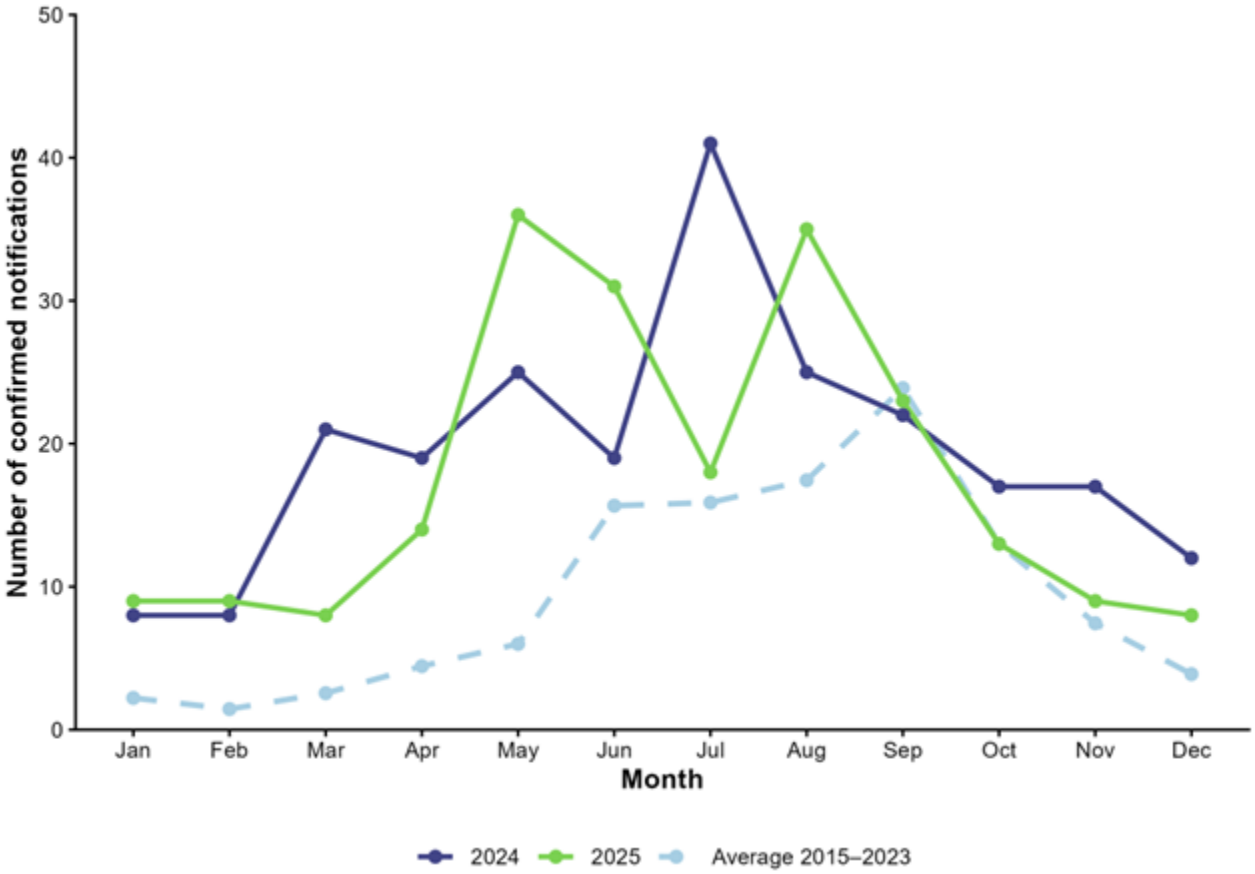

Figure 10. Monthly confirmed *E. coli* STEC notifications in NI, 2024–2025 compared with the monthly average, 2015–2023

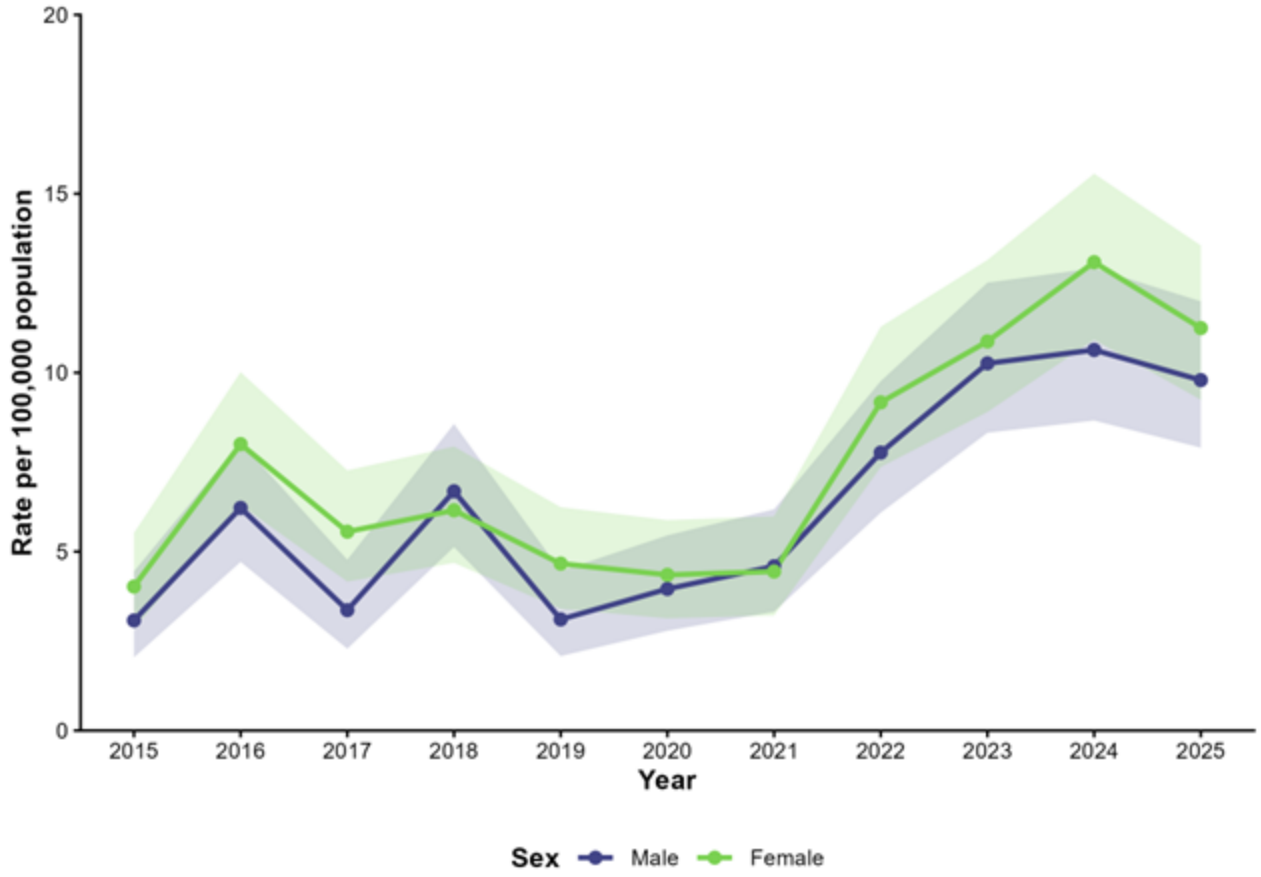

Figure 11. Confirmed *E. coli STEC* incidence rates per 100,000 population in NI, by sex, 2015–2025

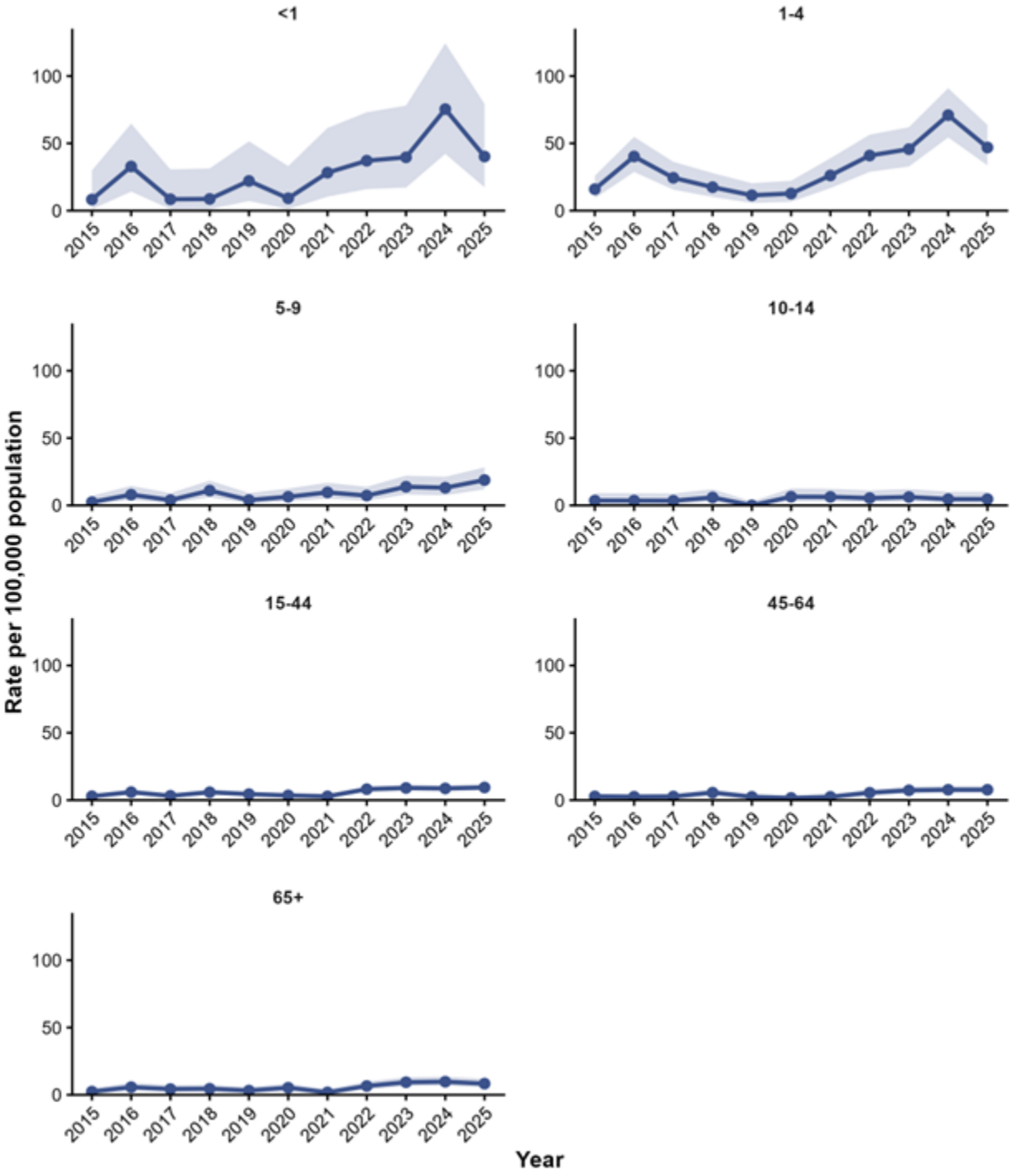

Figure 12. Confirmed *E. coli* STEC incidence rates per 100,000 population in NI, by age group, 2015–2025

Giardia

Giardia lamblia is a protozoan parasite that causes giardiasis. The parasite infects the gastrointestinal tract of humans and animals. Infection may cause diarrhoea and abdominal cramps; however, a substantial proportion of cases can be asymptomatic.

Confirmed notifications decreased from 213 in 2024 to 160 in 2025, following an increasing trend from 2021 (Table 4). The incidence rate in 2025 was 8.3 per 100,000 population (Figure 13).

In 2025, incidence rates of giardiasis were higher in males (11.3 per 100,000 population) and have remained consistently higher than in females since 2015 (Figure 15). The distribution of cases by age group has fluctuated over time but remained broadly similar across age groups. In 2025, the highest incidence rate was observed in adults aged 65 years and over (10.6 per 100,000 population) (Figure 16).

Table 4. Confirmed notifications of *Giardia* in NI, 2015–2025

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
n	89	117	154	145	161	118	142	143	191	213	160

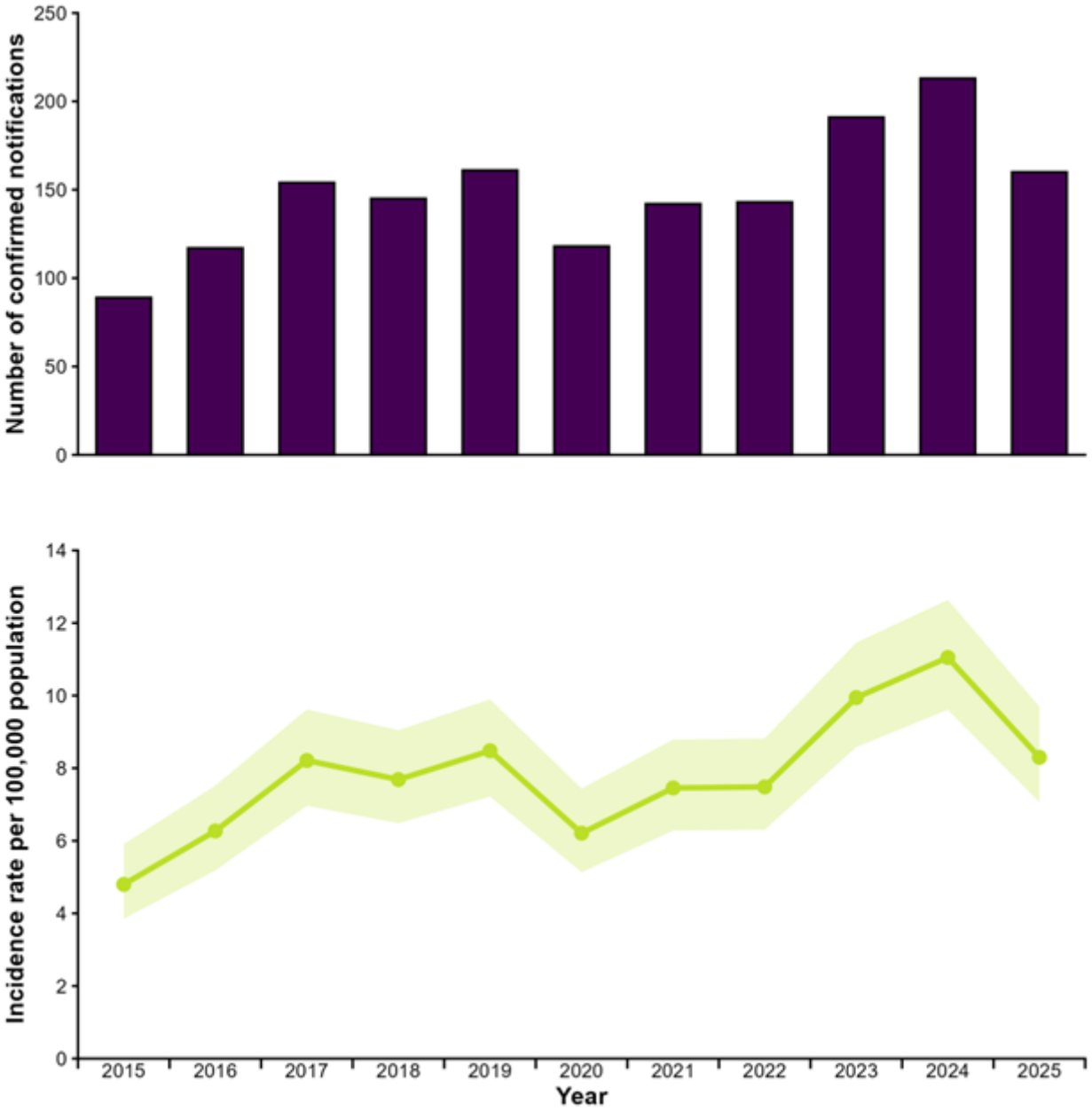

Figure 13. Confirmed *Giardia* notifications and incidence rates in NI, 2015–2025

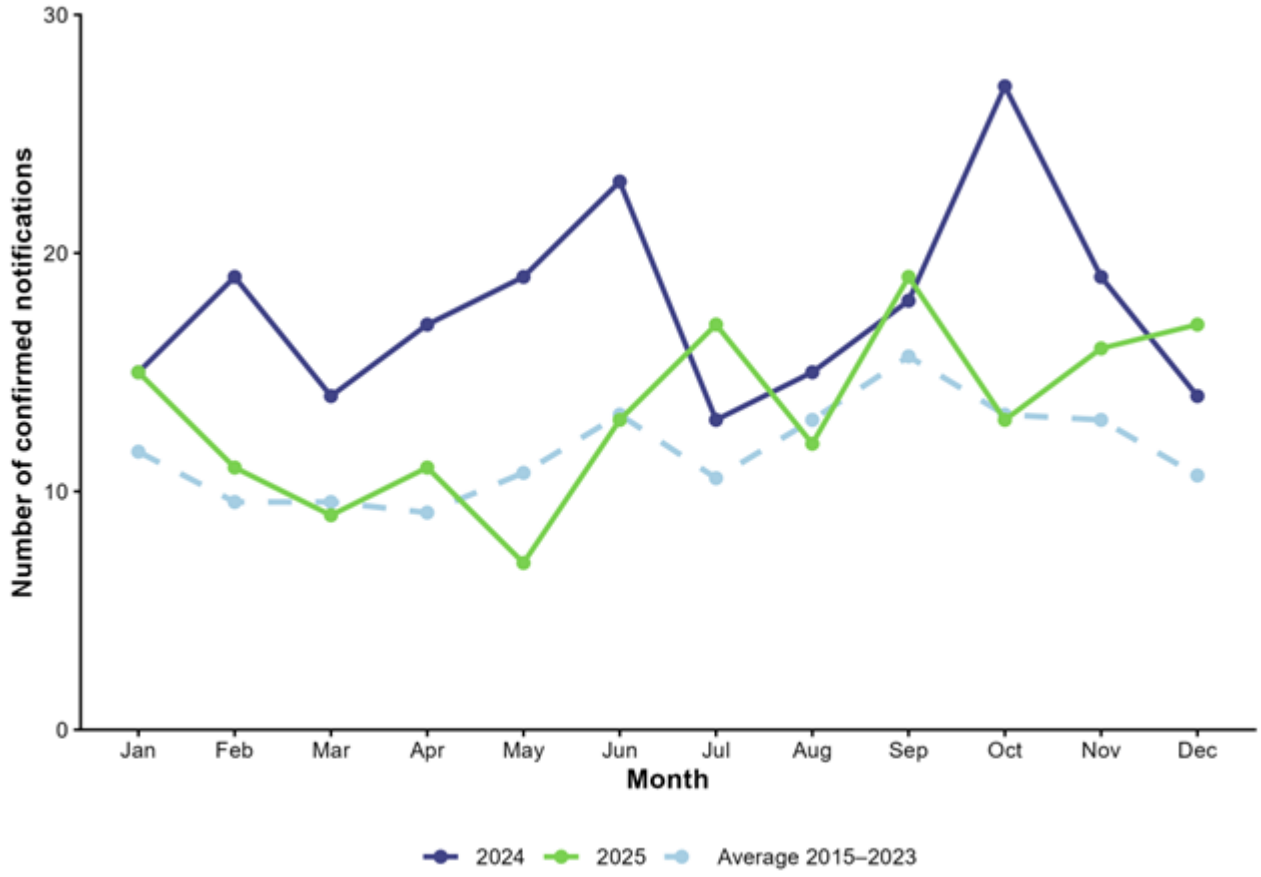

Figure 14. Monthly confirmed *Giardia* notifications in NI, 2024–2025 compared with the monthly average, 2015–2023

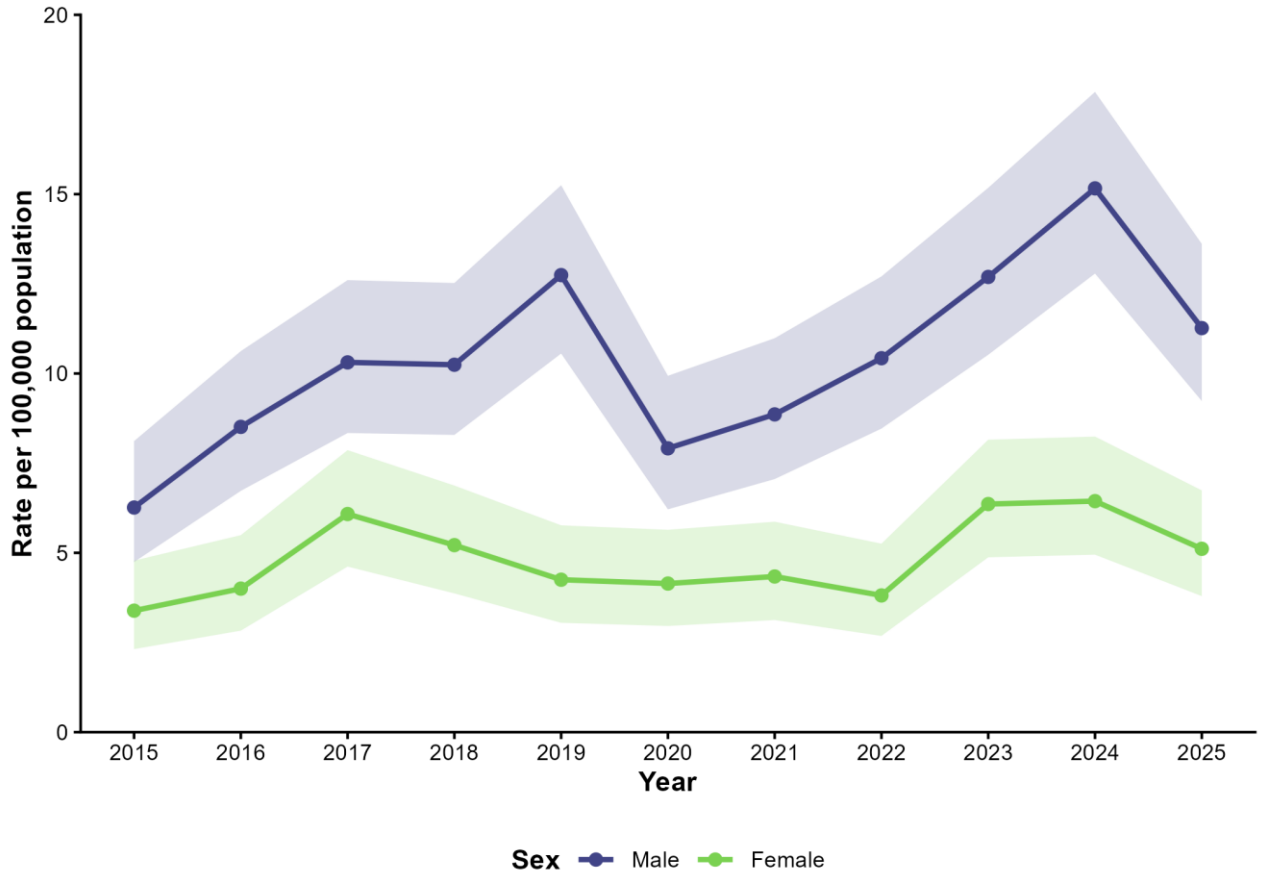

Figure 15. Confirmed *Giardia* incidence rates per 100,000 population in NI, by sex, 2015–2025

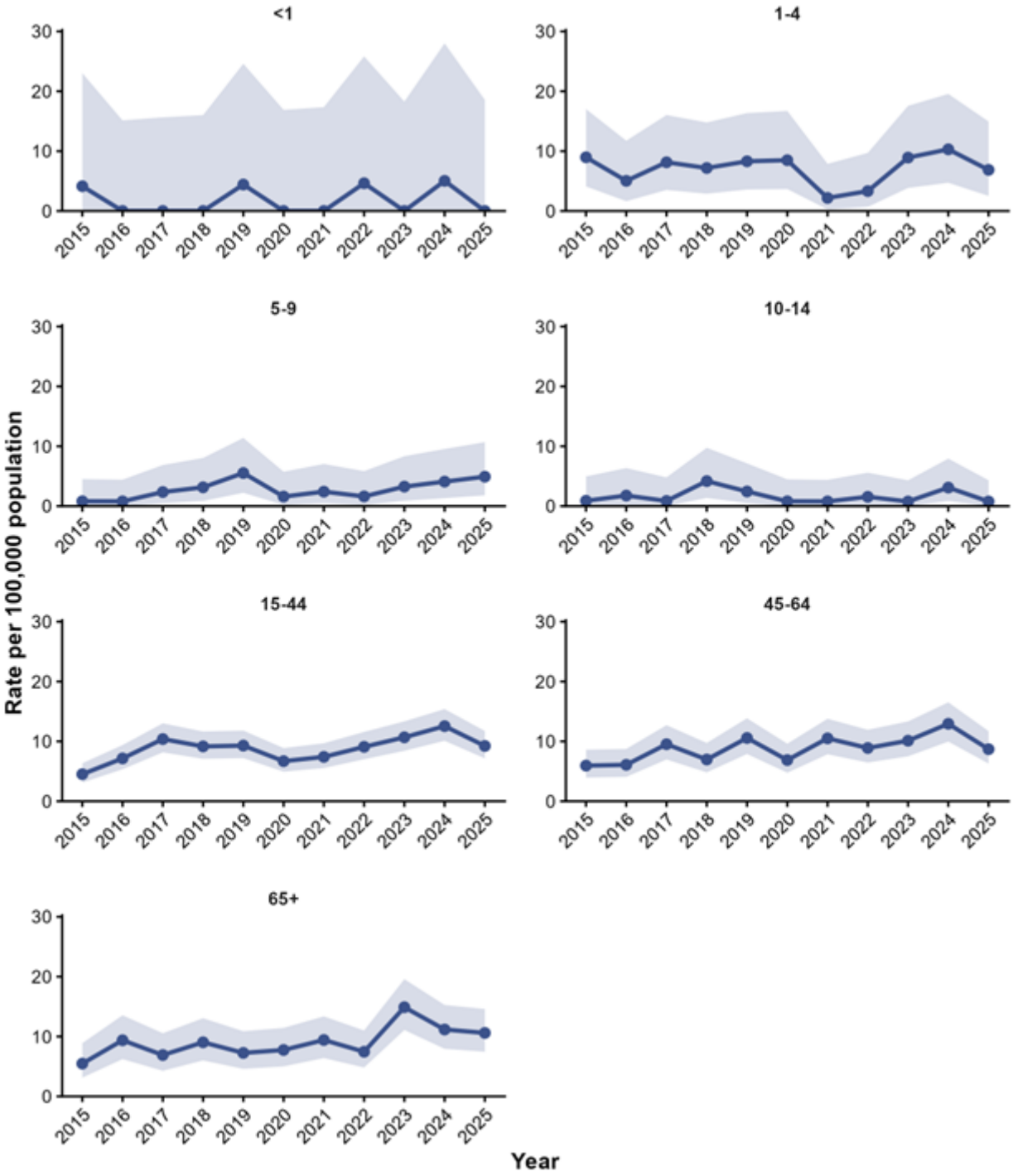

Figure 16. Confirmed *Giardia* incidence rates per 100,000 population in NI, by age group, 2015–2025

Salmonella (Non-typhoidal)

Salmonella infections are a common cause of bacterial gastrointestinal illness. Clinical presentation typically includes abdominal pain, diarrhoea, fever, nausea, headache, and occasionally vomiting. Severe dehydration may occur, particularly in vulnerable populations such as infants, older adults, and immunocompromised individuals.

Confirmed notifications of *Salmonella* increased from 198 in 2024 to 218 in 2025 (Table 5). Rates have fluctuated between males and females over time (Figure 19). The highest incidence rate was observed in children aged under 1 year (50.3 per 100,000 population), consistent with patterns observed in previous years (Figure 20). A substantial proportion of cases (40%, n=87) reported recent travel outside the UK and Ireland.

Table 5. Confirmed notifications of *Salmonella* in NI, 2015–2025

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
n	133	138	120	152	156	58	94	153	171	198	218

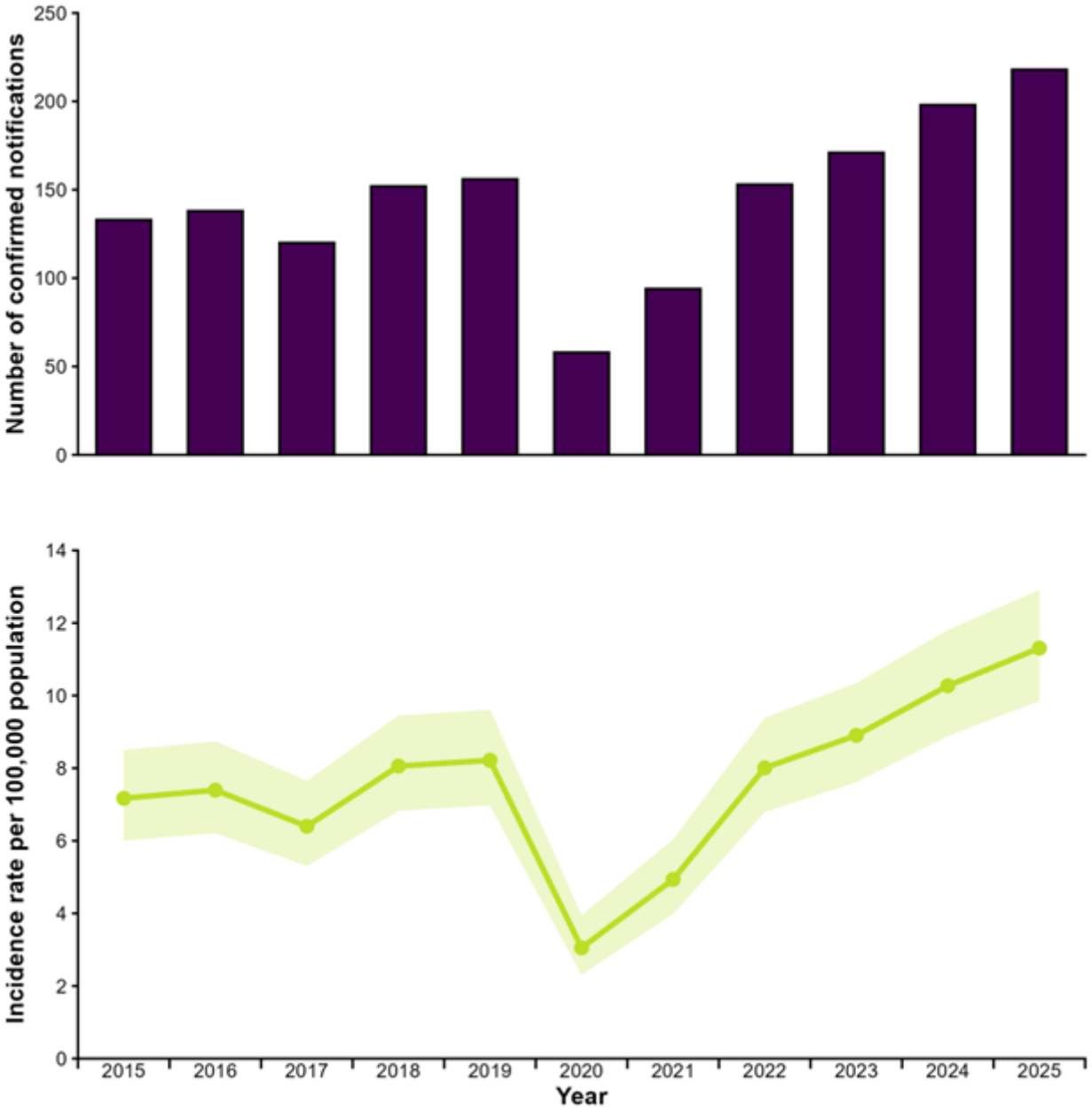

Figure 17. Confirmed *Salmonella* notifications and incidence rates in NI, 2015–2025

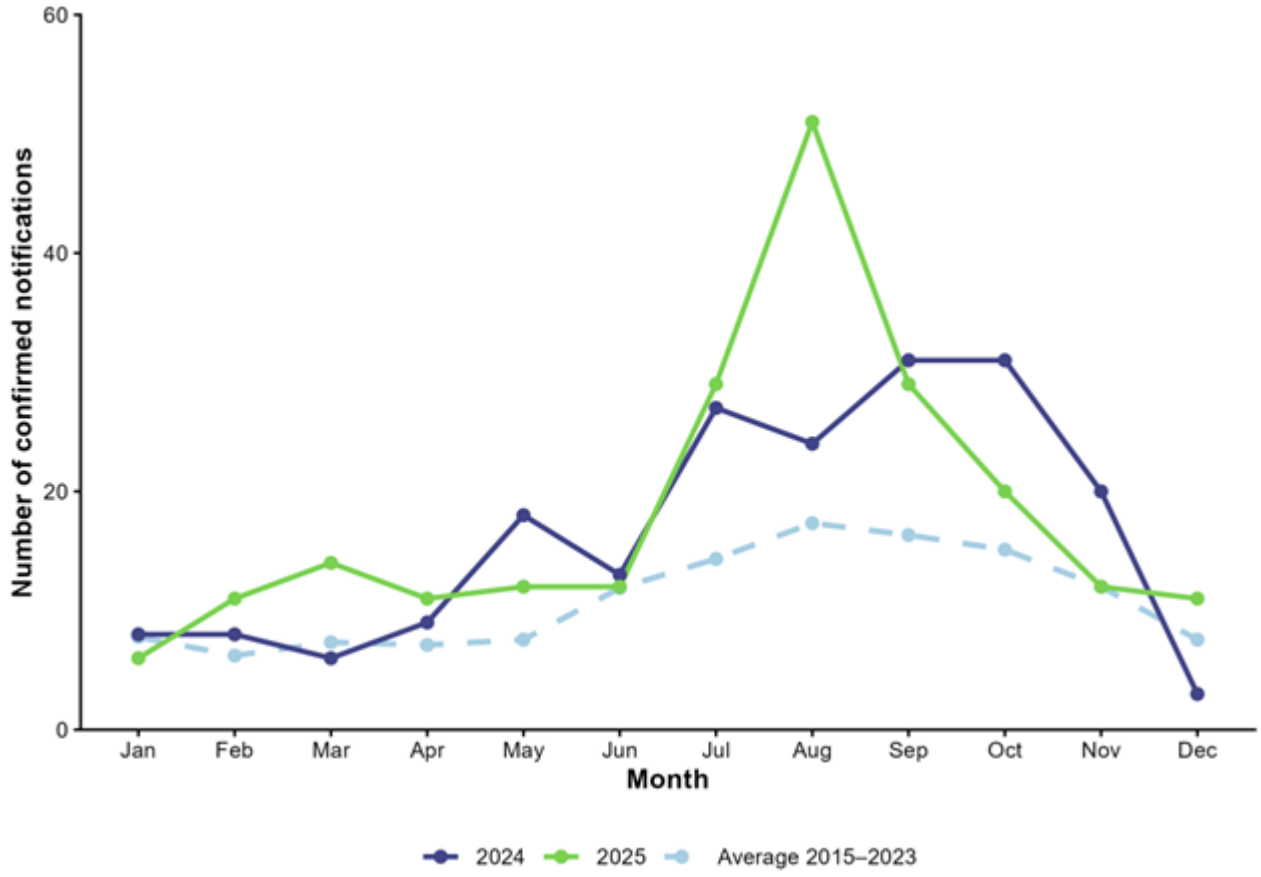

Figure 18. Monthly confirmed *Salmonella* notifications in NI, 2024–2025 compared with the monthly average, 2015–2023

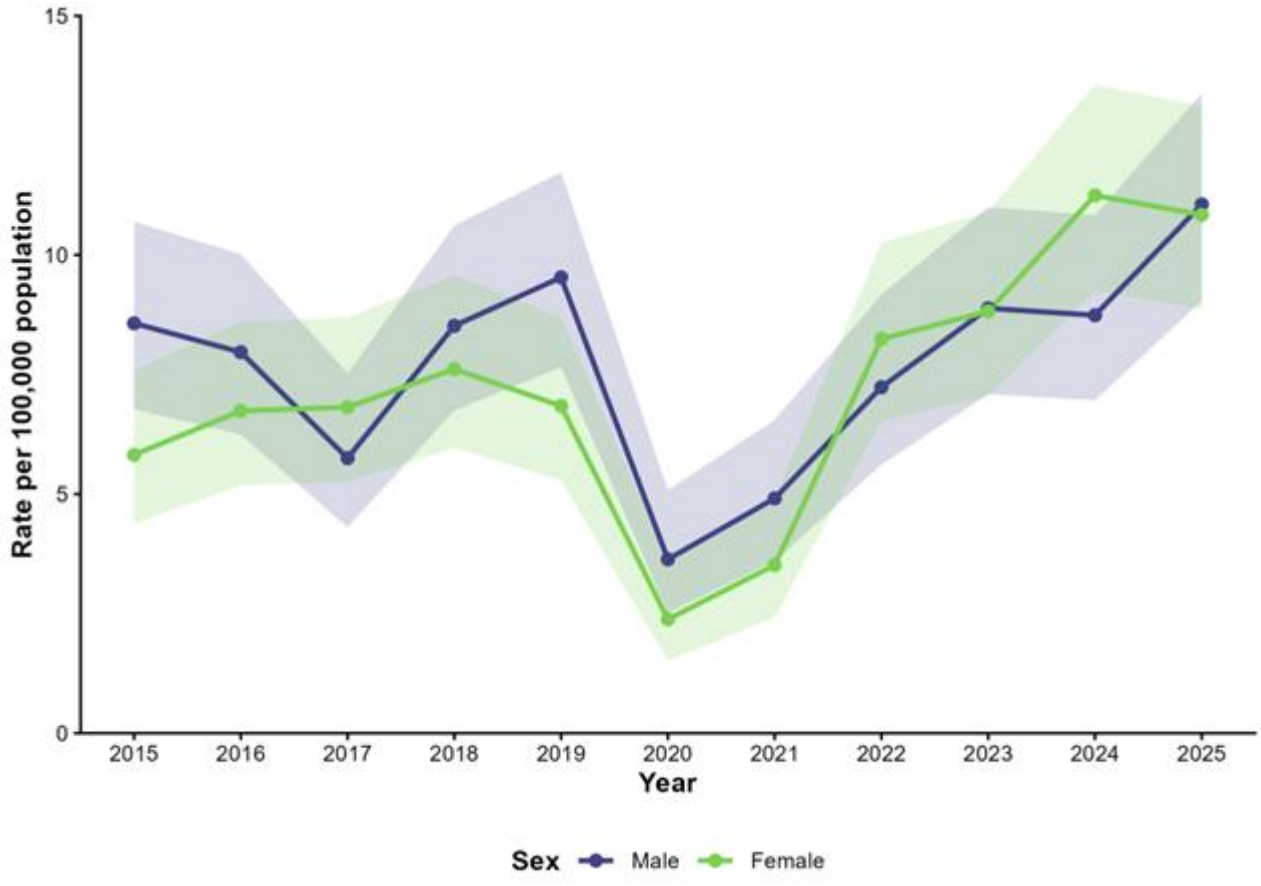

Figure 19. Confirmed *Salmonella* incidence rates per 100,000 population in NI, by sex, 2015–2025

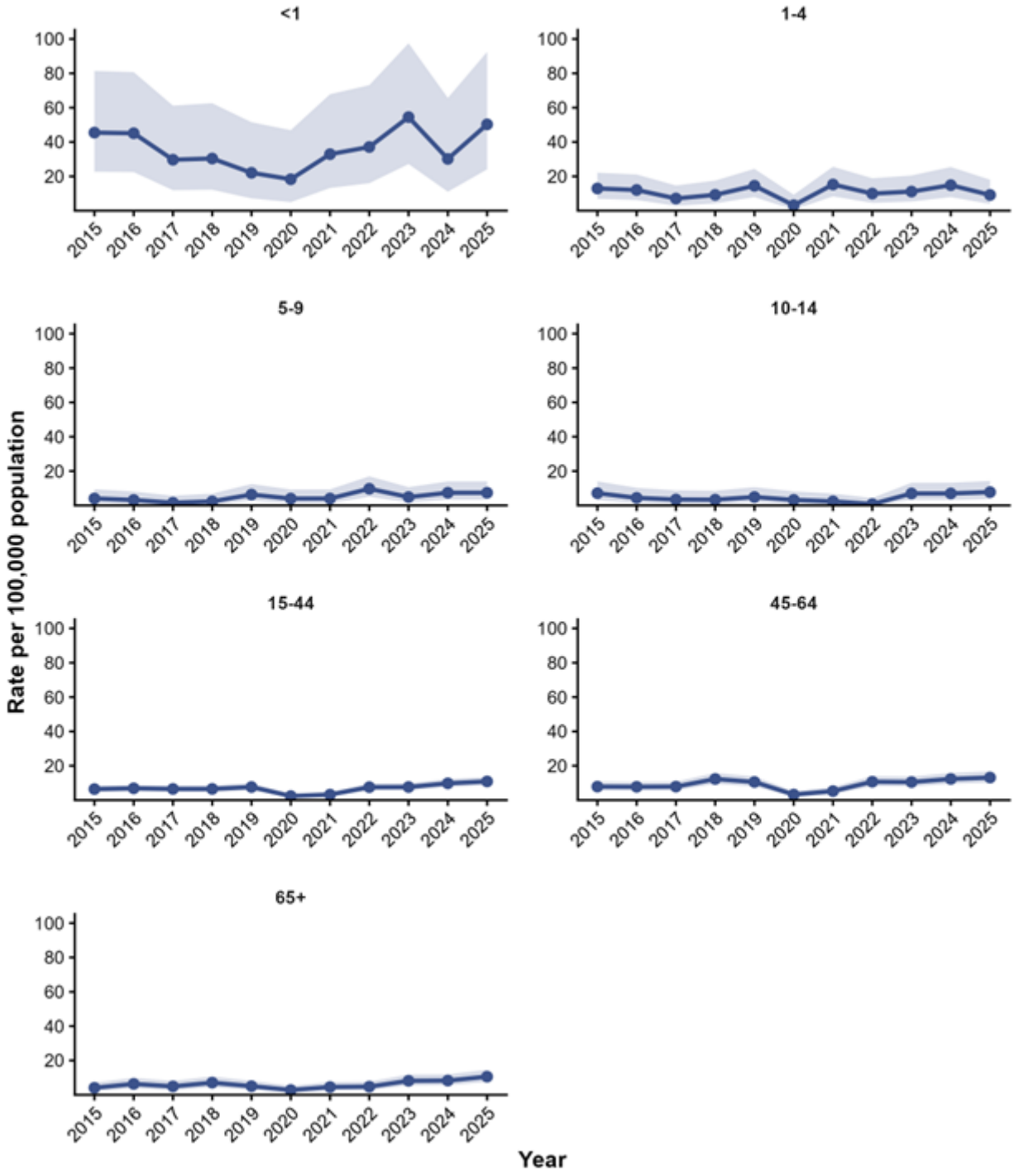

Figure 20. Confirmed *Salmonella* incidence rates per 100,000 population in NI, by age group, 2015–2025

Shigella

Shigellosis, also referred to asbacillary dysentery, is caused by four species; *Shigella dysenteriae, Shigella flexneri, Shigella boydii* and *Shigella sonnei.* In Northern Ireland *S. sonnei* and *S. flexneri are the mo*st commonly reported with *S. flexneri* generally associated with more severe disease.

Clinical presentation typically includes diarrhoea, which may be bloody, and abdominal pain. Infection occurs across all age groups and is commonly associated with travel to areas with poor sanitation. Severe and invasive disease is uncommon, although complications such as haemolytic uraemic syndrome (HUS) may occur.

Confirmed notifications of *Shigella* decreased by 12.5%, from 40 in 2024 to 35 in 2025 (Table 6). The incidence rate of was higher in males (3.47 per 100,000 population), consistent with patterns observed over time (Figure 23). The highest incidence rate was observer in adults aged 45-64 years (2.63 per 100,000 population) (Figure 24). Of the 35 confirmed notifications in 2025, 51.4% (n=18) reported recent travel outside the UK and Ireland.

Table 6. Confirmed notifications of *Shigella in NI*, 2015–2025

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
n	33	21	34	23	31	8	10	29	37	40	35

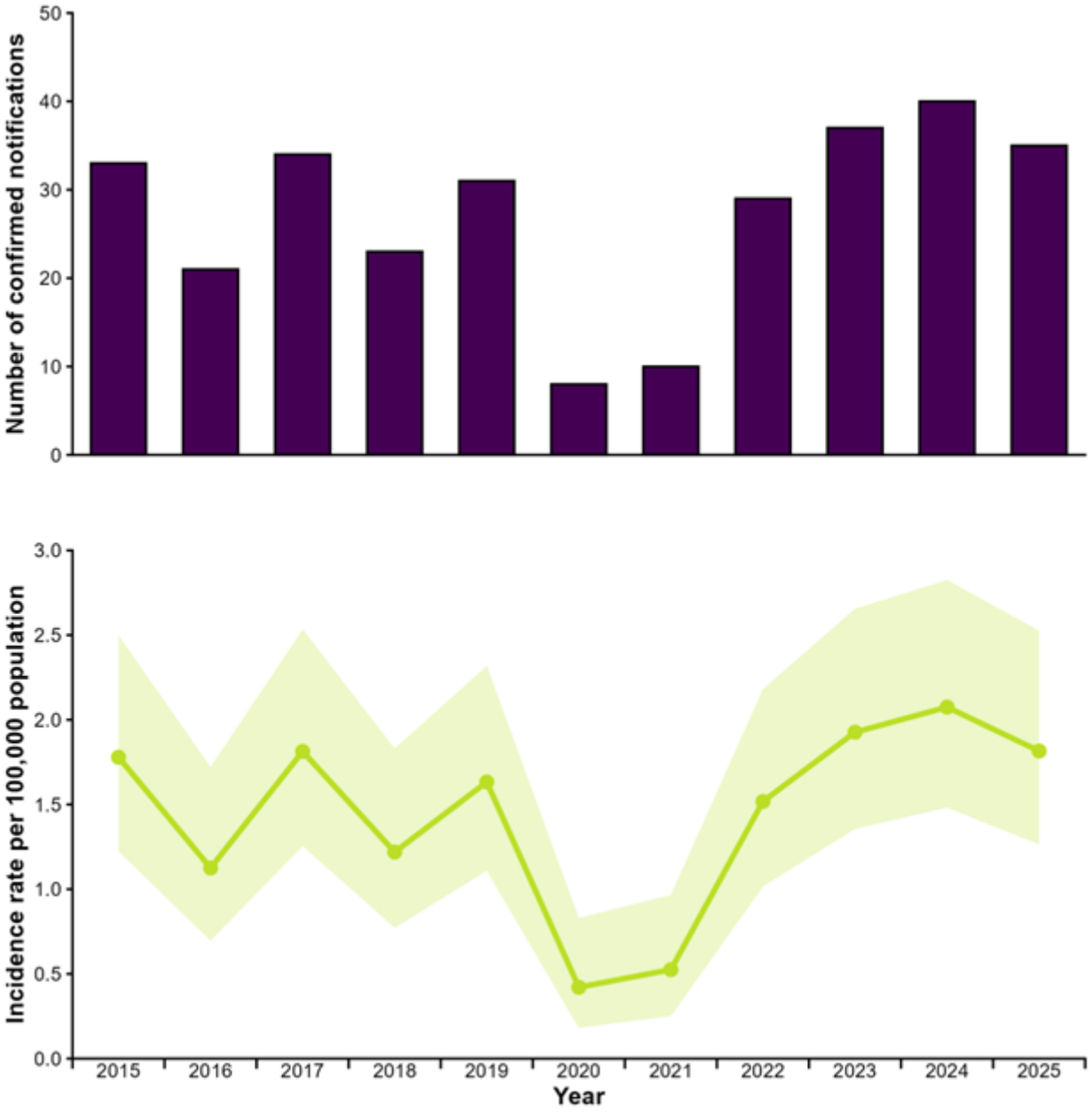

Figure 21. Confirmed *Shigella* notifications and incidence rates in NI, 2015–2025

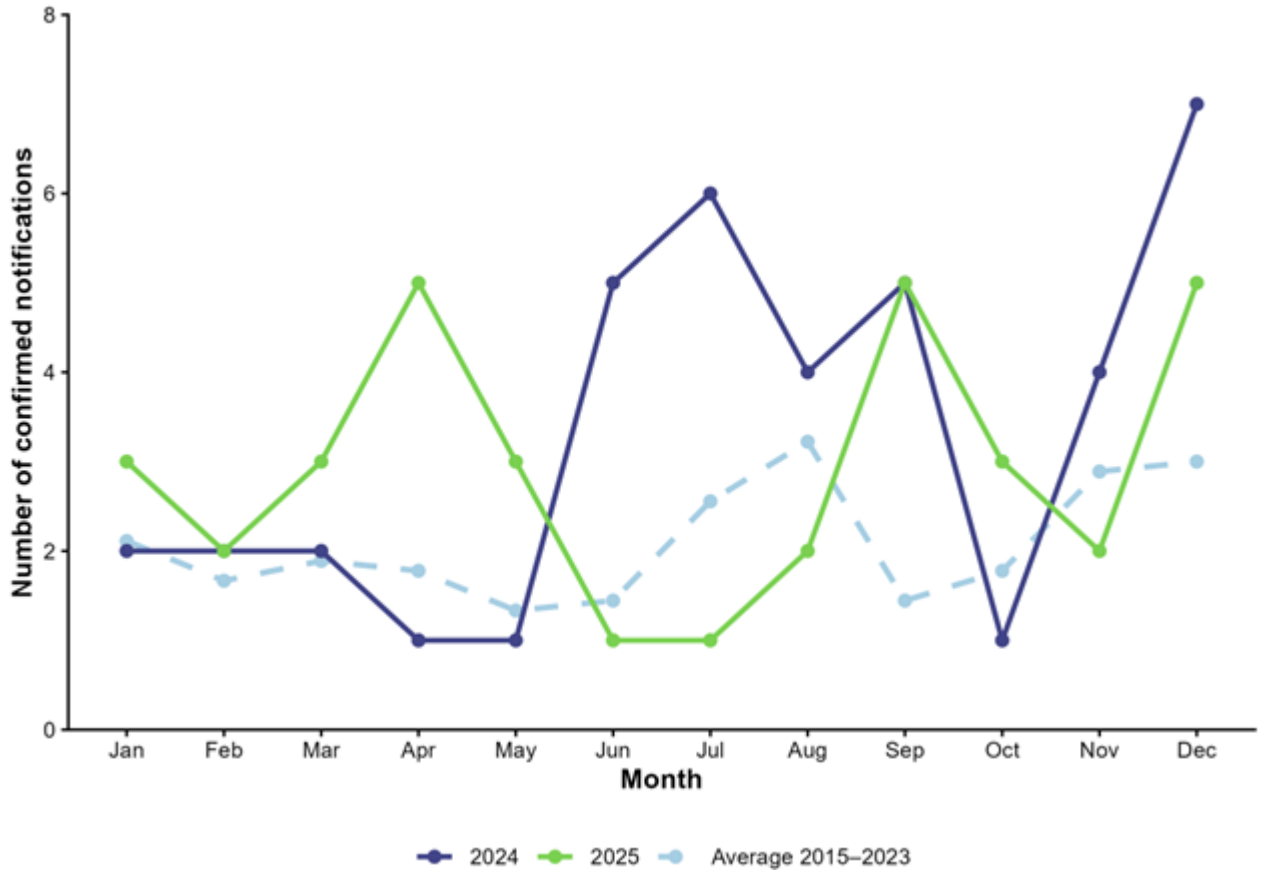

Figure 22. Monthly confirmed *Shigella* notifications in NI, 2024–2025 compared with the monthly average, 2015–2023

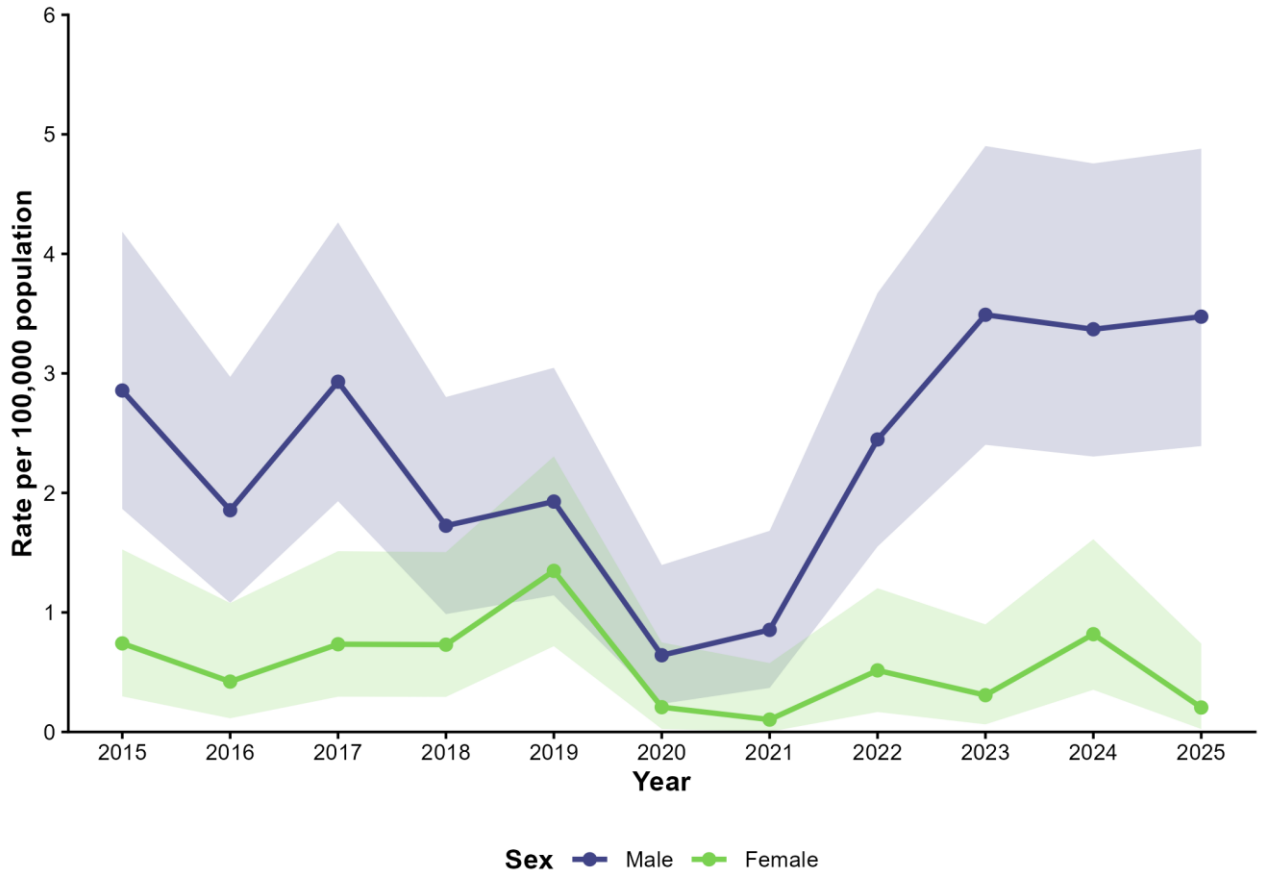

Figure 23. Confirmed Shigella incidence rates per 100,000 population in NI, by sex, 2015–2025

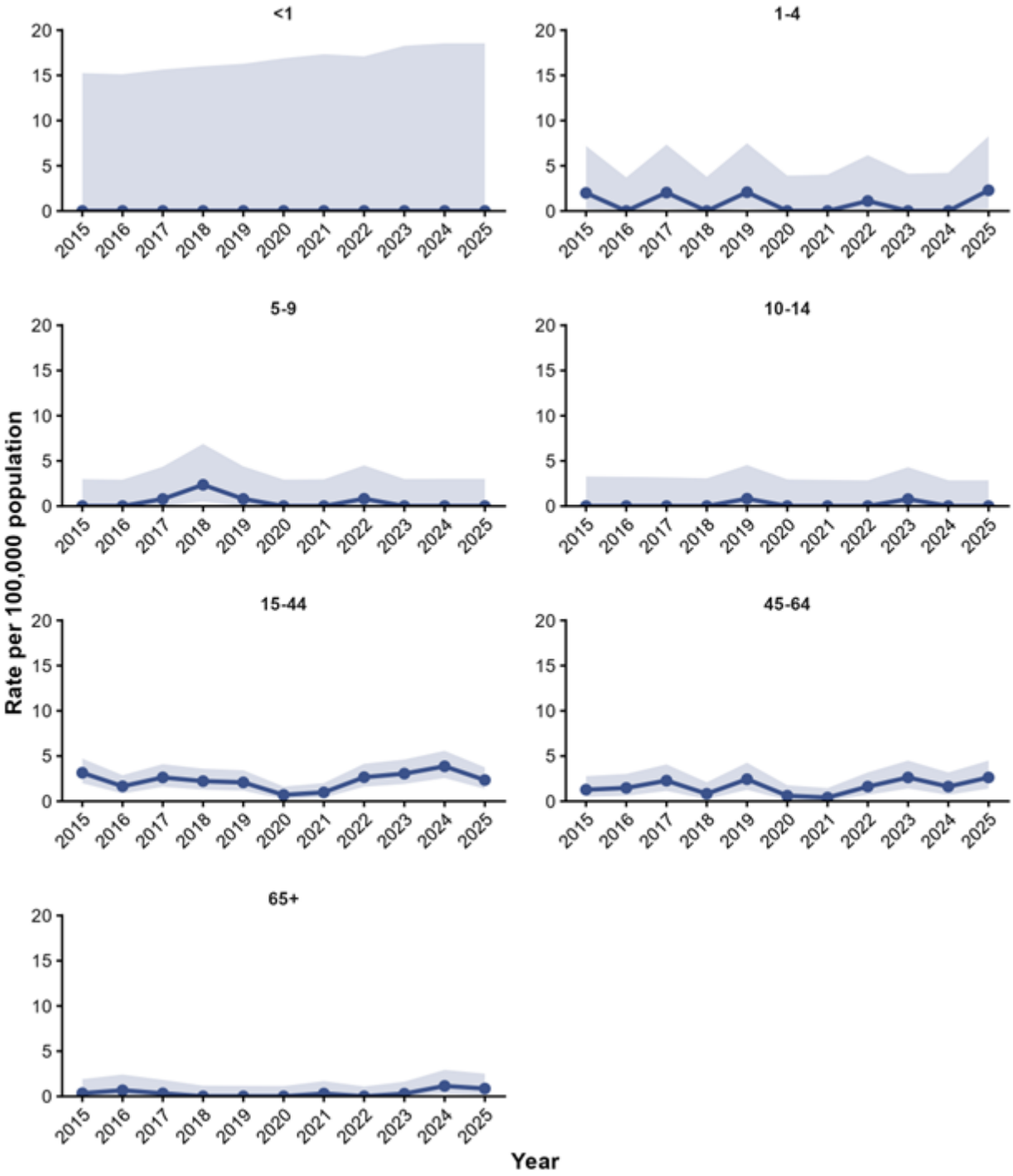

Figure 24. Confirmed Shigella incidence rates per 100,000 population in NI, by age group, 2015–2025

Listeria

Listeria monocytogenes is a bacteria that causes listeriosis, a rare but serious infection. Clinical presentation ranges from mild febrile illness to invasive disease, including septicaemia and meningitis. Pregnant women, neonates, older adults and immunocompromised individuals are at increased risk of severe outcomes. Infection is typically foodborne and associated with ready-to-eat foods such as unpasteurised dairy products and processed meats.

Confirmed notifications of *Listeria* remained relatively stable between 2015 and 2025 has remained fairly stable with minor year-to-year variation. In 2025, seven confirmed notifications were reported, representing a slight increase from five cases in 2024 (Table 7). Interpretation is limited by small numbers.

Table 7. Confirmed notifications of *Listeria* in NI, 2015–2025

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
n	5	4	1	3	5	6	7	8	4	5	7

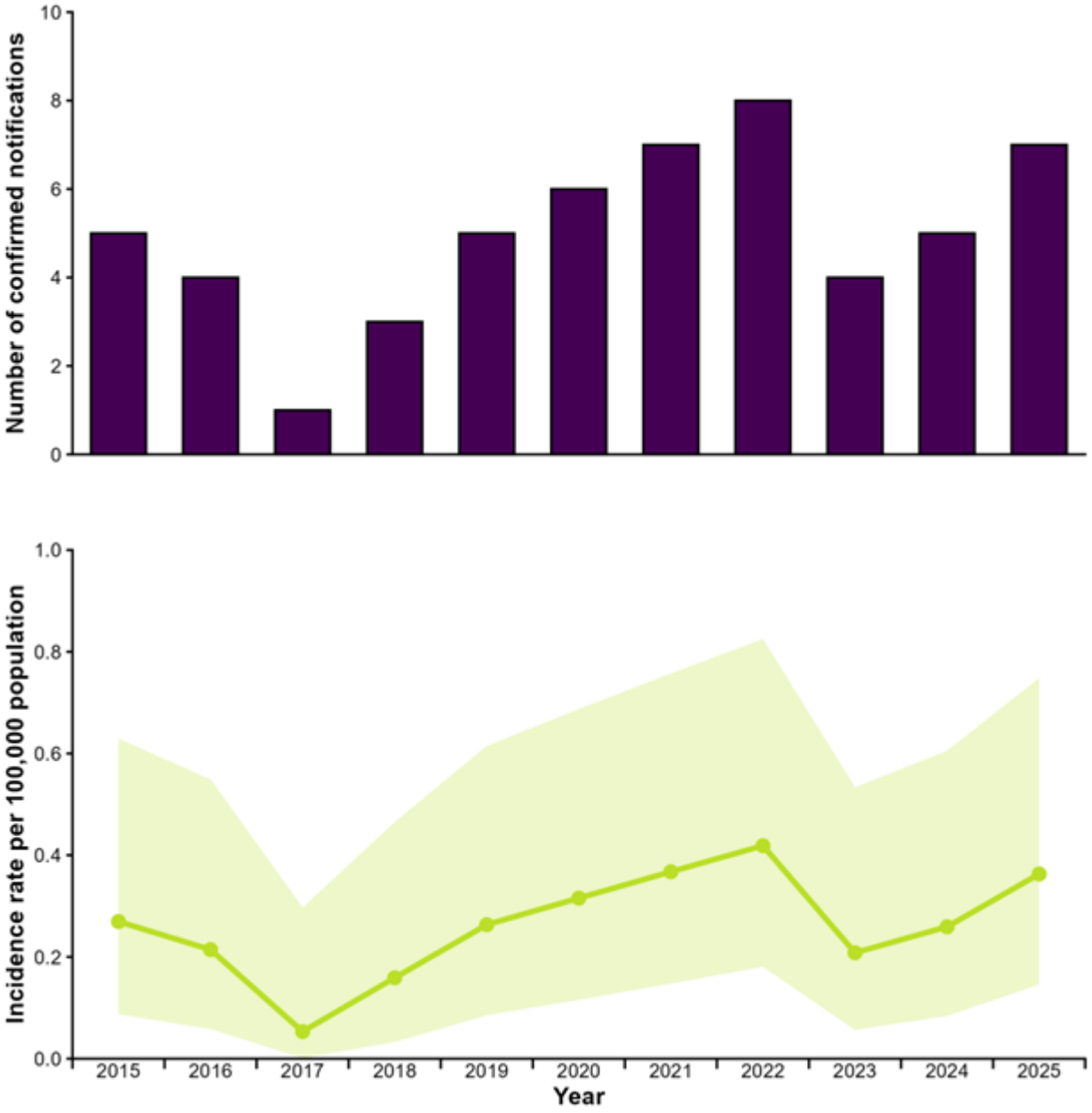

Figure 25. Confirmed *Listeria* notifications and incidence rates in NI, 2015–2025

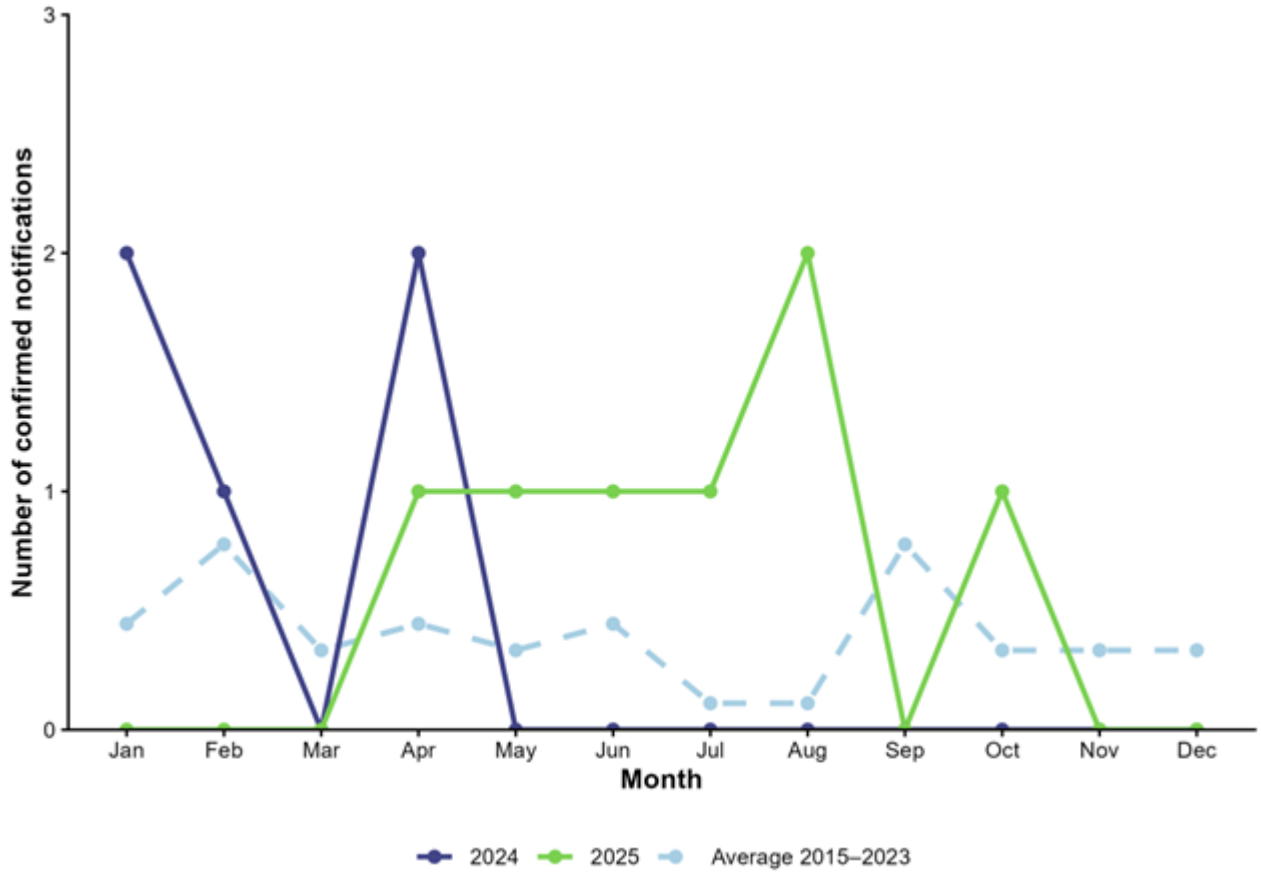

Figure 26. Monthly confirmed *Listeria* notifications in NI, 2024–2025 compared with the monthly average, 2015–2023

Norovirus

Norovirus is a common cause of gastrointestinal infection. Transmission is highly efficient due to a low infectious dose, environmental persistence, and short-lived immunity. Infection occurs year-round but typically peaks during the winter months. In closed settings, such as hospitals and care homes, norovirus can cause significant outbreaks and associated service disruption.

Laboratory reports of norovirus do not necessarily reflect the true burden of disease in the community. Testing is often limited during outbreaks with only a small number of cases sampled to confirm the causative agent. Once norovirus is identified, further testing is not undertaken for additional cases, resulting in ascertainment in routine lab-based surveillance data. In 2025, 250 laboratory reports of Norovirus were recorded in Northern Ireland (Table 8).

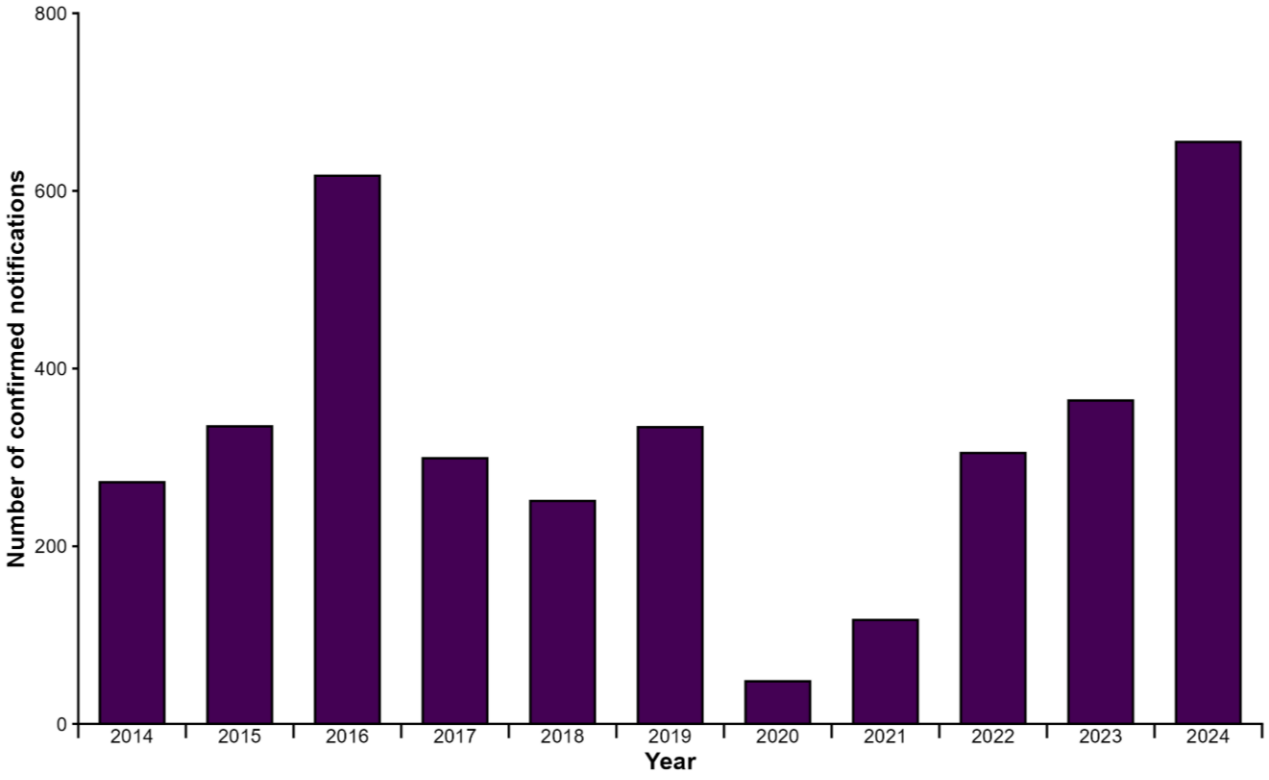

Figure 27. Laboratory confirmed Norovirus cases in NI, 2014–2024*

***Northern Ireland Laboratory Information System (NILIS) was changed as the primary data source in 2025, 2025 counts have been excluded due to laboratory data availability issues.**

Methods

The data source for this report is an internal case management system, the system contains data reported from clinicians and laboratories, this data is accessed via the Northern Ireland Analytics Platform. These are live systems and data is subject to change. This includes Notifications of Infectious Diseases (NOIDS) – Clinicians and laboratories have a statutory duty to report notifiable infectious diseases (e.g. food poisoning) to the PHA under the Public Health Act (NI) 1967.

Population denominators are calculated using 2024 mid-year estimates published by the Northern Ireland Research and Statistics Agency (NISRA). For the year 2025 the previous year estimates are used as a proxy, as this data is not yet available.

Age group and sex specific incidence rates were calculated as the number of incident cases divided by the corresponding population at risk and expressed per 100,000 population.

Ninety-five percent confidence intervals (95% CI) for incidence rates were calculated using Byars method and Poisson exact method to account for small cell counts in some infections or within certain strata.

The case definition for a confirmed notification across all pathogens in this report was an individual with a positive laboratory test for the respective pathogen.

Data source and criteria:

E. coli STEC notifications are sourced from HPZone using following criteria Confidence: Confirmed, Agent: E. coli (VTEC), Time entered: Year = 2015-2025

Cryptosporidium notifications are sourced from HPZone using following criteria Confidence: Confirmed, Agent: *Cryptosporidium*, Time entered: Year = 2015-2025

Shigella notifications are sourced from HPZone using following criteria Confidence: Confirmed, Agent: *Shigella*, Time entered: Year = 2015-2025

Salmonella notifications are sourced from HPZone using following criteria Confidence: Confirmed, Agent: *Salmonella*, Time entered: Year = 20152-025

Giardia notifications are sourced from HPZone using following criteria Confidence: Confirmed, Agent: *Giardia*, Time entered: Year = 2015- 2025

Campylobacter notifications are sourced from HPZone using following criteria Confidence: Confirmed, Agent: *Campylobacter*, Time entered: Year = 2015-2025

Norovirus notifications are sourced from Northern Ireland Laboratory Information System using following criteria Organism: Norovirus, Date of Specimen: Year = 2015-2025

Data from the Northern Ireland Laboratory Information System (NILIS) contains data from 2015 –2023. This system is currently being updated, and so more recent data is not currently available. To note data in late 2023 for South Eastern Trust may have been impacted by this update and so may have some incompleteness.

Supplementary tables

Table 9. Monthly confirmed notification counts by pathogen and year, 2015–2025.

Pathogen	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Campylobacter	2015	89	85	102	102	131	169	138	121	114	119	102	79	1351
	2016	90	91	62	116	141	159	139	131	107	96	100	36	1268
	2017	69	58	94	85	161	180	175	166	156	121	88	60	1413
	2018	86	87	75	96	190	181	184	121	102	120	102	98	1442
	2019	111	59	66	88	178	166	195	147	146	132	92	62	1442
	2020	86	92	47	47	115	177	146	123	129	91	114	88	1255
	2021	73	92	117	126	211	278	169	121	116	138	161	109	1711
	2022	122	78	111	109	245	177	135	212	164	146	173	118	1790
	2023	165	116	90	118	219	222	167	202	143	174	152	112	1880
	2024	137	99	96	135	231	133	130	163	163	190	115	97	1689
	2025	102	86	105	107	202	153	157	147	119	123	100	75	1476
Cryptosporidium	2015	6	11	21	35	26	8	12	21	22	15	13	6	196
	2016	9	20	26	57	46	16	16	24	20	11	11	5	261
	2017	8	9	23	40	41	17	14	17	26	23	17	9	244
	2018	8	15	24	45	46	15	20	20	27	22	27	19	288
	2019	9	26	19	32	39	20	17	21	30	29	22	11	275
	2020	17	12	20	32	29	24	19	9	15	14	23	20	234
	2021	18	30	68	133	78	22	10	14	10	19	17	12	431
	2022	13	19	19	44	41	20	13	32	23	20	21	20	285
	2023	12	20	33	50	50	28	26	33	59	52	58	33	454
	2024	32	24	37	74	60	25	13	25	34	28	26	9	387
	2025	18	25	38	48	62	26	11	16	26	24	25	19	338
***E. coli* STEC**	2015	1	1	0	3	4	3	18	9	11	7	4	5	66
	2016	0	2	1	6	3	50	20	17	15	14	6	0	134
	2017	0	1	0	7	6	8	15	10	16	7	11	3	84
	2018	5	0	1	5	7	21	17	22	27	13	1	4	123
	2019	4	0	1	4	6	4	13	12	16	5	6	4	75

	2020	2	1	2	2	7	8	7	16	19	10	6	0	80
	2021	3	2	6	4	5	9	7	8	17	17	7	3	88
	2022	1	2	6	3	6	5	18	32	67	18	4	6	168
	2023	4	4	6	6	10	33	28	31	27	26	22	10	207
	2024	8	8	21	19	25	19	41	25	22	17	17	12	234
	2025	9	9	8	14	36	31	18	35	23	13	9	8	213
Giardia	2015	6	0	2	2	2	7	7	10	11	14	19	9	89
	2016	10	9	9	8	5	11	9	10	17	11	9	9	117
	2017	16	7	14	9	9	10	18	12	20	11	15	13	154
	2018	13	5	10	12	14	16	8	13	13	14	14	13	145
	2019	16	10	9	12	23	13	11	17	16	9	18	7	161
	2020	11	18	9	6	8	12	11	6	8	13	4	12	118
	2021	16	5	12	13	13	9	10	15	15	13	12	9	142
	2022	7	12	9	5	12	16	11	18	17	15	11	10	143
	2023	10	20	12	15	11	25	10	16	24	19	15	14	191
	2024	15	19	14	17	19	23	13	15	18	27	19	14	213
	2025	15	11	9	11	7	13	17	12	19	13	16	17	160
Salmonella	2015	7	3	5	5	9	8	13	15	19	22	19	8	133
	2016	7	11	10	6	7	14	13	16	22	12	16	4	138
	2017	4	6	6	12	4	15	14	18	15	13	7	6	120
	2018	10	5	8	8	6	22	21	26	13	17	10	6	152
	2019	15	5	7	13	9	10	20	14	19	17	18	9	156
	2020	2	9	8	1	5	10	5	6	3	6	2	1	58
	2021	9	3	10	5	5	8	13	8	8	8	9	8	94
	2022	6	5	7	3	7	10	17	28	18	17	17	18	153
	2023	10	9	5	11	16	10	13	25	30	24	10	8	171
	2024	8	8	6	9	18	13	27	24	31	31	20	3	198
	2025	6	11	14	11	12	12	29	51	29	20	12	11	218
Shigella	2015	0	3	3	3	2	0	4	3	2	5	5	3	33
	2016	1	0	1	1	0	3	2	2	1	1	4	5	21

	2017	2	0	4	3	0	1	6	8	4	1	1	4	34
	2018	4	2	0	3	2	2	0	2	1	2	5	0	23
	2019	3	2	3	3	4	1	2	2	0	1	2	8	31
	2020	3	2	1	0	0	0	0	1	0	0	0	1	8
	2021	0	1	0	0	0	0	1	1	1	1	5	0	10
	2022	2	2	1	1	3	4	3	4	3	3	2	1	29
	2023	4	3	4	2	1	2	5	6	1	2	2	5	37
	2024	2	2	2	1	1	5	6	4	5	1	4	7	40
	2025	3	2	3	5	3	1	1	2	5	3	2	5	35
Listeria	2015	0	0	0	2	0	0	0	1	2	0	0	0	5
	2016	0	1	0	0	1	1	0	0	0	0	1	0	4
	2017	0	0	1	0	0	0	0	0	0	0	0	0	1
	2018	0	0	0	1	0	0	1	0	0	1	0	0	3
	2019	0	0	1	0	1	0	0	0	0	1	2	0	5
	2020	0	1	0	0	0	0	0	0	2	0	0	3	6
	2021	1	3	0	0	0	2	0	0	1	0	0	0	7
	2022	2	1	1	1	0	0	0	0	2	1	0	0	8
	2023	1	1	0	0	1	1	0	0	0	0	0	0	4
	2024	2	1	0	2	0	0	0	0	0	0	0	0	5
	2025	0	0	0	1	1	1	1	2	0	1	0	0	7

Table 10. Laboratory confirmed counts by pathogen and year, 2015–2023.

*Data Source: NILIS

*Please note due to updates to laboratory data flows to the PHA, data post 2023 has been redacted, in late 2023 updates impacted South Eastern Trust data and thus there may be some incompleteness. Laboratory data is provisional and subject to change as a result of ongoing system updates.

Pathogen	Year	Count
Campylobacter	2015	1320
	2016	1258
	2017	1423
	2018	1476
	2019	1350
	2020	1238
	2021	1674
	2022	1713
	2023	1580
Cryptosporidium	2015	204
	2016	283
	2017	253
	2018	297
	2019	285
	2020	257
	2021	441
	2022	277
	2023	428
E. coli	2015	1467
	2016	1535
	2017	1740

	2018	1758
	2019	1733
	2020	1429
	2021	1516
	2022	1468
	2023	1157
Giardia	2015	35
	2016	75
	2017	78
	2018	74
	2019	73
	2020	69
	2021	103
	2022	135
	2023	141
Salmonella	2015	127
	2016	146
	2017	133
	2018	157
	2019	153
	2020	68
	2021	99
	2022	177
	2023	177
Shigella	2015	49
	2016	27

	2017	49
	2018	34
	2019	50
	2020	17
	2021	17
	2022	77
	2023	89
Listeria	2015	6
	2016	4
	2017	1
	2018	3
	2019	5
	2020	7
	2021	8
	2022	7
	2023	4
Norovirus	2015	335
	2016	617
	2017	299
	2018	251
	2019	334
	2020	48
	2021	117
	2022	305
	2023	364

Table 11. Confirmed notifications reporting recent travel by pathogen and year, 2015–2025.

*Please note that completeness of travel reported may not be reflectively of those who have travelled as this data may not have been reported to the PHA.

	Reported recent travel	Yes	%	No	%	Unknown	%
Campylobacter	2015	2	0.1%	0	0.0%	1349	99.9%
	2016	8	0.6%	0	0.0%	1260	99.4%
	2017	2	0.1%	0	0.0%	1411	99.9%
	2018	2	0.1%	0	0.0%	1440	99.9%
	2019	2	0.1%	0	0.0%	1440	99.9%
	2020	1	0.1%	0	0.0%	1254	99.9%
	2021	0	0.0%	0	0.0%	1711	100.0%
	2022	1	0.1%	0	0.0%	1789	99.9%
	2023	2	0.1%	0	0.0%	1878	99.9%
	2024	0	0.0%	0	0.0%	1689	100.0%
	2025	2	0.1%	1	0.1%	1473	99.8%
Cryptosporidium	2015	27	13.8%	0	0.0%	169	86.2%
	2016	43	16.5%	0	0.0%	218	83.5%
	2017	42	17.2%	0	0.0%	202	82.8%
	2018	23	8.0%	0	0.0%	265	92.0%
	2019	49	17.8%	0	0.0%	226	82.2%
	2020	0	0.0%	0	0.0%	234	100.0%
	2021	8	1.9%	0	0.0%	423	98.1%
	2022	21	7.4%	0	0.0%	264	92.6%
	2023	104	22.9%	0	0.0%	350	77.1%
	2024	55	14.2%	0	0.0%	332	85.8%

	2025	68	20.1%	241	71.3%	29	8.6%
***E. coli* STEC**	2015	5	7.6%	0	0.0%	61	92.4%
	2016	17	12.7%	0	0.0%	117	87.3%
	2017	18	21.4%	0	0.0%	66	78.6%
	2018	15	12.2%	0	0.0%	108	87.8%
	2019	15	20.0%	0	0.0%	60	80.0%
	2020	0	0.0%	0	0.0%	80	100.0%
	2021	0	0.0%	0	0.0%	88	100.0%
	2022	13	7.7%	0	0.0%	155	92.3%
	2023	33	15.9%	0	0.0%	174	84.1%
	2024	39	16.7%	0	0.0%	195	83.3%
	2025	62	29.1%	109	51.2%	42	19.7%
Giardia	2015	23	25.8%	0	0.0%	66	74.2%
	2016	35	29.9%	0	0.0%	82	70.1%
	2017	35	22.7%	0	0.0%	119	77.3%
	2018	27	18.6%	0	0.0%	118	81.4%
	2019	34	21.1%	0	0.0%	127	78.9%
	2020	5	4.2%	0	0.0%	113	95.8%
	2021	9	6.3%	0	0.0%	133	93.7%
	2022	18	12.6%	0	0.0%	125	87.4%
	2023	29	15.2%	0	0.0%	162	84.8%
	2024	55	25.8%	0	0.0%	158	74.2%
	2025	61	38.1%	39	24.4%	60	37.5%
Salmonella	2015	49	36.8%	0	0.0%	84	63.2%

	2016	63	45.7%	0	0.0%	75	54.3%
	2017	57	47.5%	0	0.0%	63	52.5%
	2018	57	37.5%	0	0.0%	95	62.5%
	2019	60	38.5%	0	0.0%	96	61.5%
	2020	0	0.0%	0	0.0%	58	100.0%
	2021	2	2.1%	0	0.0%	92	97.9%
	2022	38	24.8%	0	0.0%	115	75.2%
	2023	65	38.0%	0	0.0%	106	62.0%
	2024	71	35.9%	0	0.0%	127	64.1%
	2025	98	45.0%	66	30.3%	54	24.8%
Shigella	2015	15	45.5%	0	0.0%	18	54.5%
	2016	9	42.9%	0	0.0%	12	57.1%
	2017	15	44.1%	0	0.0%	19	55.9%
	2018	8	34.8%	0	0.0%	15	65.2%
	2019	8	25.8%	0	0.0%	23	74.2%
	2020	3	37.5%	0	0.0%	5	62.5%
	2021	2	20.0%	0	0.0%	8	80.0%
	2022	3	10.3%	0	0.0%	26	89.7%
	2023	6	16.2%	0	0.0%	31	83.8%
	2024	16	40.0%	0	0.0%	24	60.0%
	2025	19	54.3%	12	34.3%	4	11.4%
Listeria	2015	1	20.0%	0	0.0%	4	80.0%
	2016	1	25.0%	0	0.0%	3	75.0%
	2017	0	0.0%	0	0.0%	1	100.0%
	2018	1	33.3%	0	0.0%	2	66.7%
	2019	0	0.0%	0	0.0%	5	100.0%

	2020	0	0.0%	0	0.0%	6	100.0%
	2021	0	0.0%	0	0.0%	7	100.0%
	2022	0	0.0%	0	0.0%	8	100.0%
	2023	0	0.0%	0	0.0%	4	100.0%
	2024	0	0.0%	0	0.0%	5	100.0%
	2025	3	42.9%	0	0.0%	4	57.1%