



Clostridioides difficile infection (CDI) in Ireland Annual Report 2025





Key Points CDI 2025

Introduction: 63 hospitals participating in enhanced surveillance programme in 2025 (highest to date since 2009).

Incidence: Crude incidence rate (CIR) for new and recurrent cases decreased to 42.8 per 100,000 population in 2025 from 47.1 per 100,000 population in 2024. However, this remains higher than the mean crude incidence rate recorded during 2020-2023 (35.5 per 100,000 population). In total 2459 cases were notified in 2025.

Outbreaks: Twenty reported in 2025, all occurred in acute hospitals, representing the highest annual number reported to date and exceeding the 2020-2023 average of nine per year. ST8 and ST11 were the most commonly identified sequence types, although five outbreaks had no predominant type; in contrast ST55 and outbreaks without a predominant sequence type were most common in 2024.

Case Origin: Healthcare-associated cases accounted for 57% of cases in 2025 while 30% were community associated. Cases discharged 4-12 weeks from a healthcare facility(HCF)(5%) and those of unknown origin (8%) accounted for the remaining cases.

Origin & Onset: 30% of total CDI cases were community associated in 2025, 41% community onset. Healthcare-associated (HCA) accounted for 57% of total CDI cases, 52% healthcare onset. Most HCA cases (83%) originated from the reporting hospital.



Key Points CDI surveillance 2025

Severe CDI cases: In 2025, 55 cases (3%) required ICU admission or colectomy, remaining stable compared to 2024 (2%) and consistent with the 2020–2023 average (3%).

Age & gender distribution: As in previous years rates increase steeply with age, particularly from 75 years onwards, with the highest rates observed in adults aged 85 years or older. Incidence is similar in males and females, while rates remain low in children and younger adults.

Matched CDI cases (HPSC& NRL): 790 CDI cases were matched (65%) between NRL and HPSC. ST11, ST2, and ST8 were most common sequence types. Most strains were tcdA positive (93%) and tcdB (99%) positive. One fifth (20%) were identified as being part of clusters, which were predominantly ST11 and ST8.

Treatment: Vancomycin (61%) and fidaxomicin (28%) were the most commonly used treatments. Monotherapy used in over 95% of all reported treatment regimens with combination therapy remaining uncommon. For recurrent CDI vancomycin (49%) was the most frequently prescribed followed by fidaxomicin (39%).



Introduction

Clostridioides difficile Infection (CDI) formerly known as *Clostridium difficile* has been a notifiable disease in Ireland from May 2008. Most cases are reported to Public Health using the Computerised Infectious Disease Reporting System (CIDR).

In addition to this, the Health Protection Surveillance Centre (HPSC) initiated a voluntary enhanced CDI programme in 2009 to collect more detailed epidemiological data on all reported cases. There are 63 Irish hospitals participating in this programme in 2025.

This report provides a comprehensive overview of the surveillance data collected from 63 hospitals across Ireland. It highlights key trends, incidence rates, outbreak details, case origins, and treatment methods for CDI.



HE Method

Details on the standard national protocol can be found here:

<https://www.hpsc.ie/az/microbiologyantimicrobialresistance/clostridioidesdifficile/enhancedsurveillance/>

Hospitals are provided with a standardised excel reporting tool to report CDI cases. Individual hospital reports along with national reports are issued biannually.



Key Points

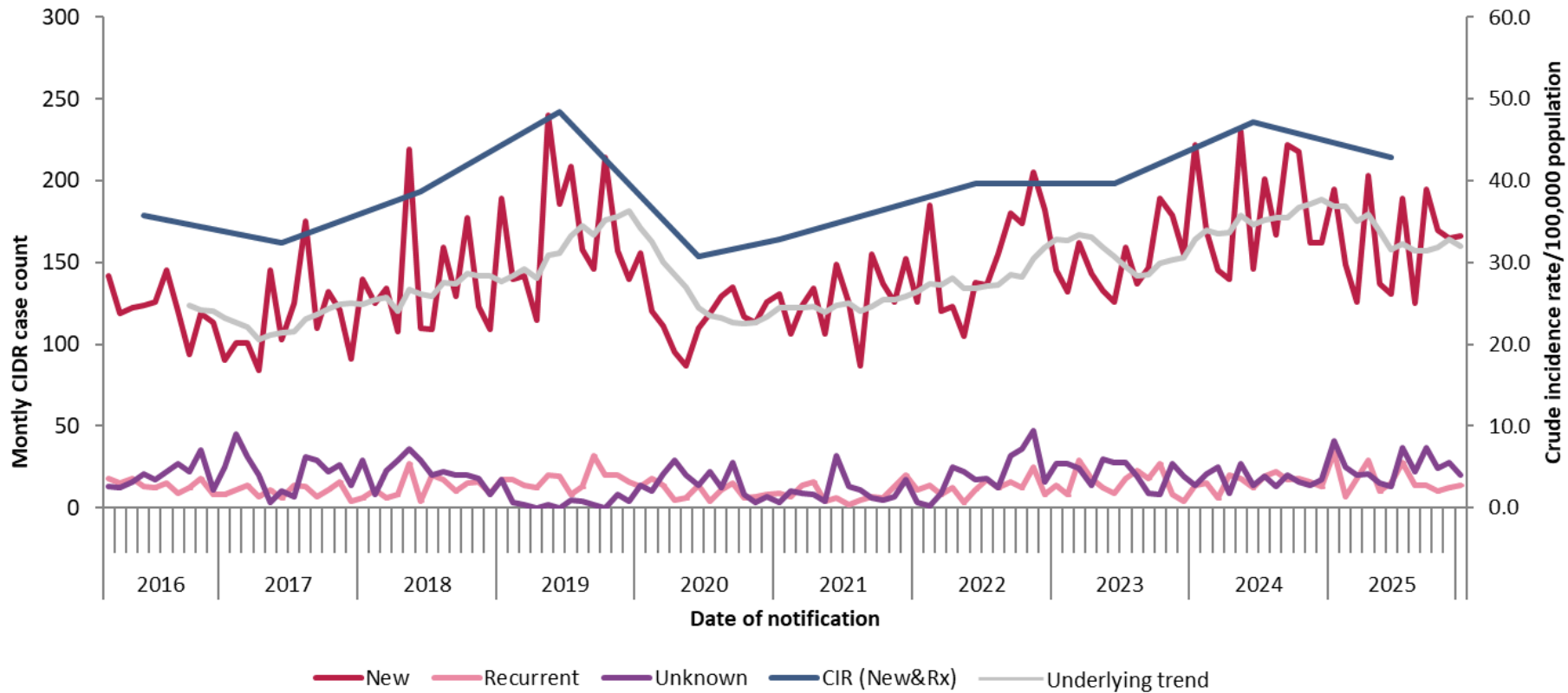
- Notifications remained high in 2025 and were approximately 24% above 2020-2023 average but slightly lower than in 2024
- CIR lower than 2024 but above historical average
- 21% cases in 2025 were recurrent, similar to 2024
- Outbreaks numbers in 2025 (20) exceeded the 2020-2023 average (9)

Mandatory CIDR notifications to Public Health	2025	2024	2020-2023 Mean
Number of notifications	2459	2583	1989
Number of new notifications	1951(79%)	2182 (85%)	1645 (83%)
Crude incidence rate* (new & recurrent cases)	42.8	47.1	35.5
Number of outbreaks	20	16	9

*Crude incidence rate is the number of new and recurrent notifications per 100,000 population. Rates were calculated using the 2022 census data, excluding children <2 years. (Source: CSO & CIDR)



CIDR Notifications by case type and year

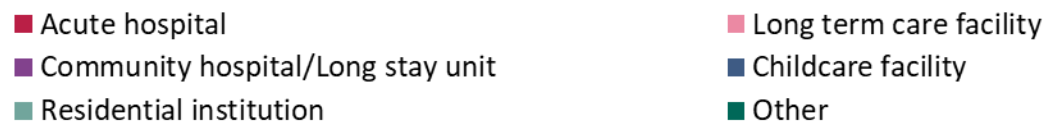
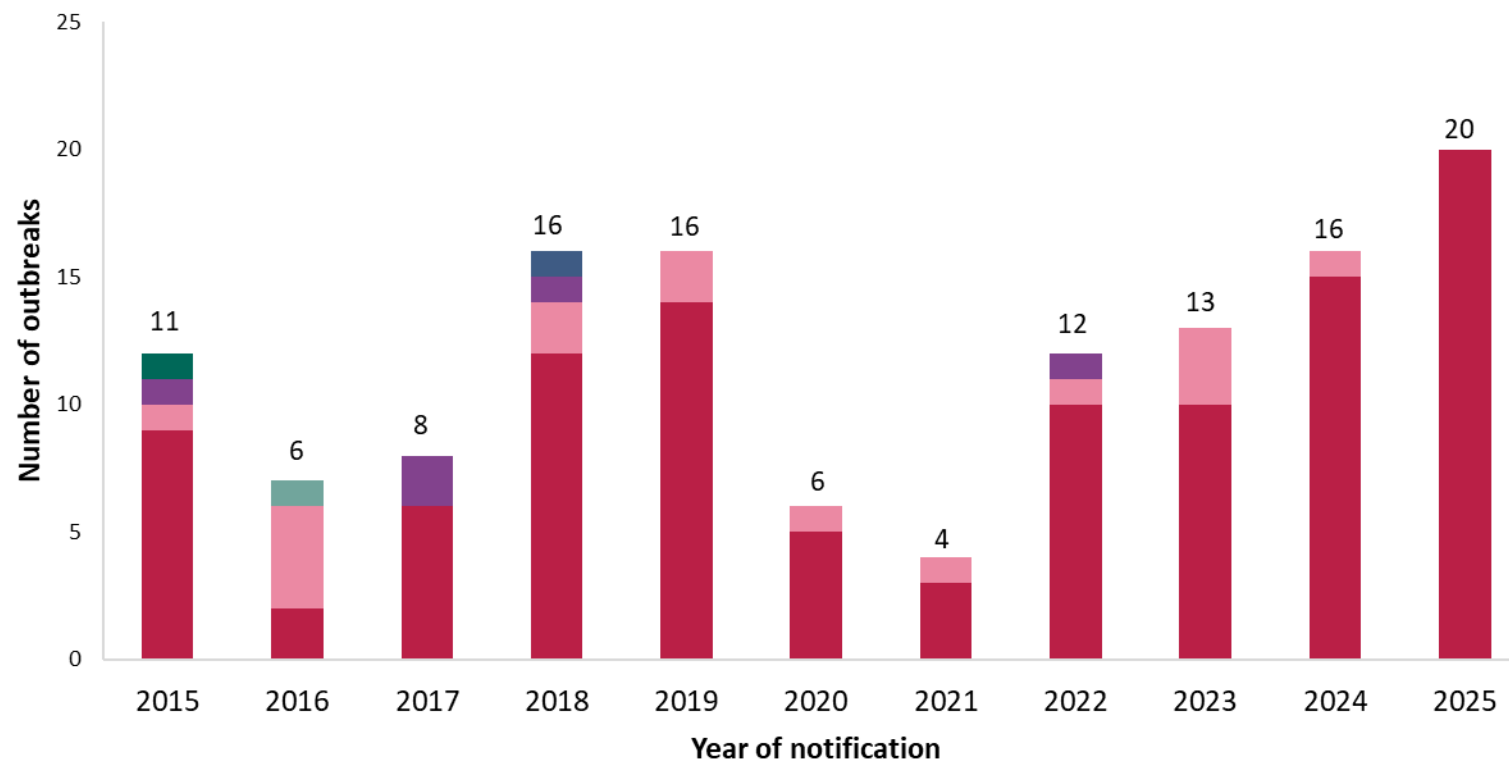


Key Points

- CIR shows has increased since 2020 with a slight decrease in 2025
- Recurrent and unknown cases remain low

Key points

- There were 20 outbreaks in 2025, the highest recorded to date
- All occurred in acute hospitals in 2025
- Outbreaks have increased since 2021





CDI outbreaks by Sequence Type



Sequence Type (ST)	2025 Outbreaks	2024 Outbreaks
ST8	4	1
ST11	3	1
ST42	1	2
ST3	1	2
ST5, ST16, ST28, ST37, ST80	1 each	–
ST6	1	1
ST55	–	3
ST2, ST17, ST49	–	1 each
No predominant type	5	3
Total	20	16

Key points

- ST8 and ST11 were the most common sequence types in 2025, although four outbreaks had no predominant type i.e. multiple sequence types identified
- Overall similar pattern to 2024 but 2025 had higher counts.

Enhanced surveillance cases	2025	2024	2020-2023**
Cases reported to enhanced surveillance system	2201	2397	1838
Number of new cases	1825(83%)	1940 (81%)	1581 (86%)
Number of hospitals participating (public & private)	63 (50 & 13)	62 (49 & 13)	61 (49 & 12)
CDI incidence rate* (all hospital acquired cases)	2.5	2.6	2.3
Origin: Location where infection was acquired			
• Healthcare-associated cases	1256 (57%)	1345 (56%)	1036 (56%)
- Reporting hospital	1038 (83%)	1120 (83%)	862 (84%)
- Long term care facility	131 (10%)	133 (10%)	87 (9%)
- Other hospital	81 (6%)	89 (7%)	76 (8%)
- Unknown healthcare facility	6 (1%)	3 (0%)	12 (1%)
• Community-associated cases	653(30%)	614 (26%)	573 (31%)
• Discharged within 4-12 wks from HCF	117 (5%)	173 (7%)	129 (7%)
• Unknown origin	175 (8%)	265 (11%)	100 (6%)

*CDI incidence rate is the number of new and recurrent cases per 10,000 bed days used

** Annual mean number of cases reported from 2020-2023 inclusive. (Source: HPSC). Note: Percentages have been rounded in this table



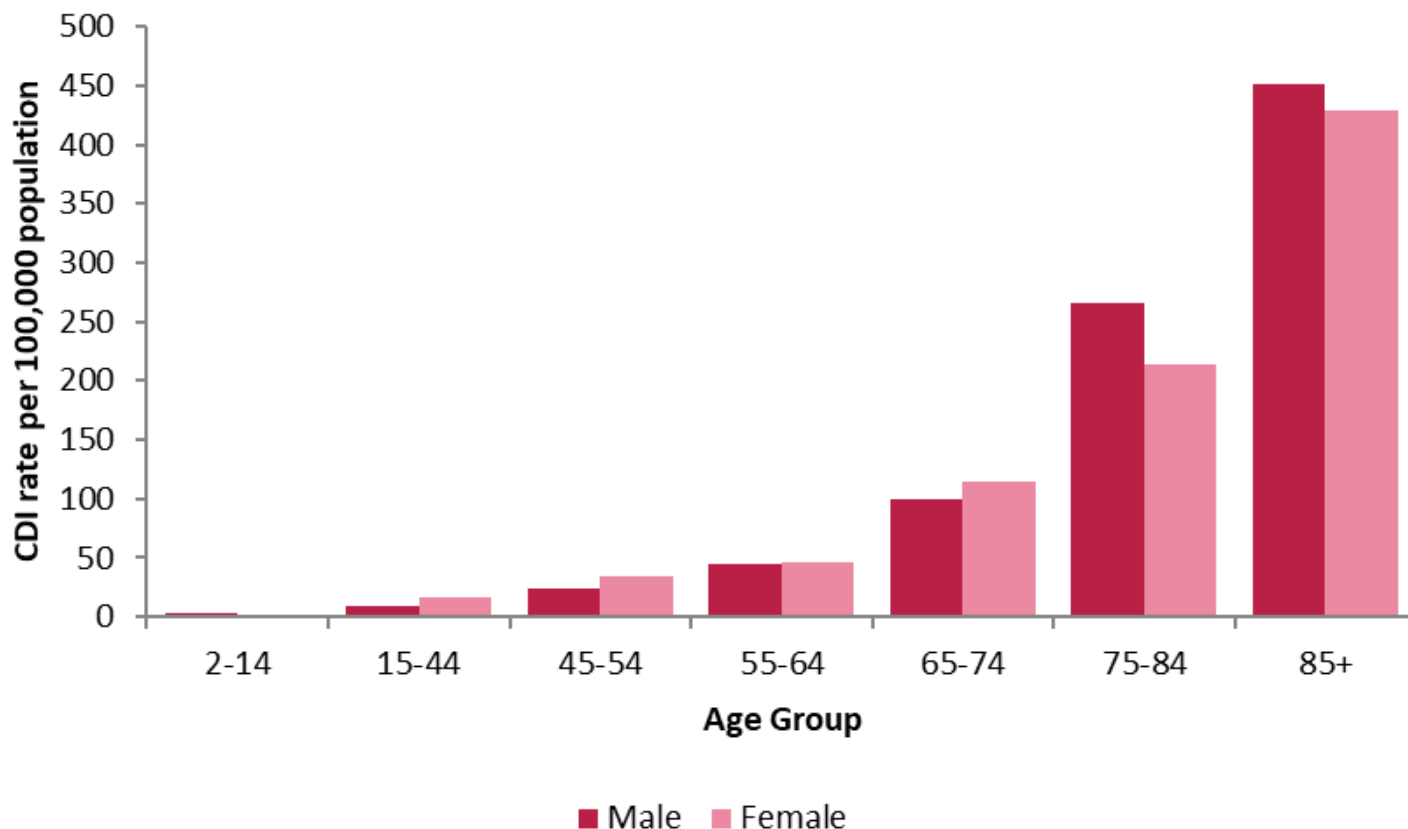
CDI cases: Onset and severity



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Number of hospitals participating (public & private)	63 (50 & 13)	62 (49 & 13)	61 (49 & 12)
CDI incidence rate* (all hospital acquired cases)	2.5	2.6	2.3
Onset:Location where patients symptoms occurred			
• Healthcare onset	1134 (52%)	1225 (51%)	969 (53%)
- Reporting hospital	957 (84%)	1025 (84%)	808 (84%)
- Long term care facility	125 (11%)	136 (11%)	90 (9%)
- Other hospital	34 (3%)	43 (4%)	47 (5%)
- Unknown location	18 (2%)	21 (2%)	26 (3%)
• Community onset	901 (41%)	981 (41%)	817 (45%)
• Unknown onset	166 (8%)	191 (8%)	52 (3%)
Severity			
Requiring ICU admission or colectomy	55 (3%)	57 (2%)	53 (3%)



Age and Gender Distribution of CDI in 2025



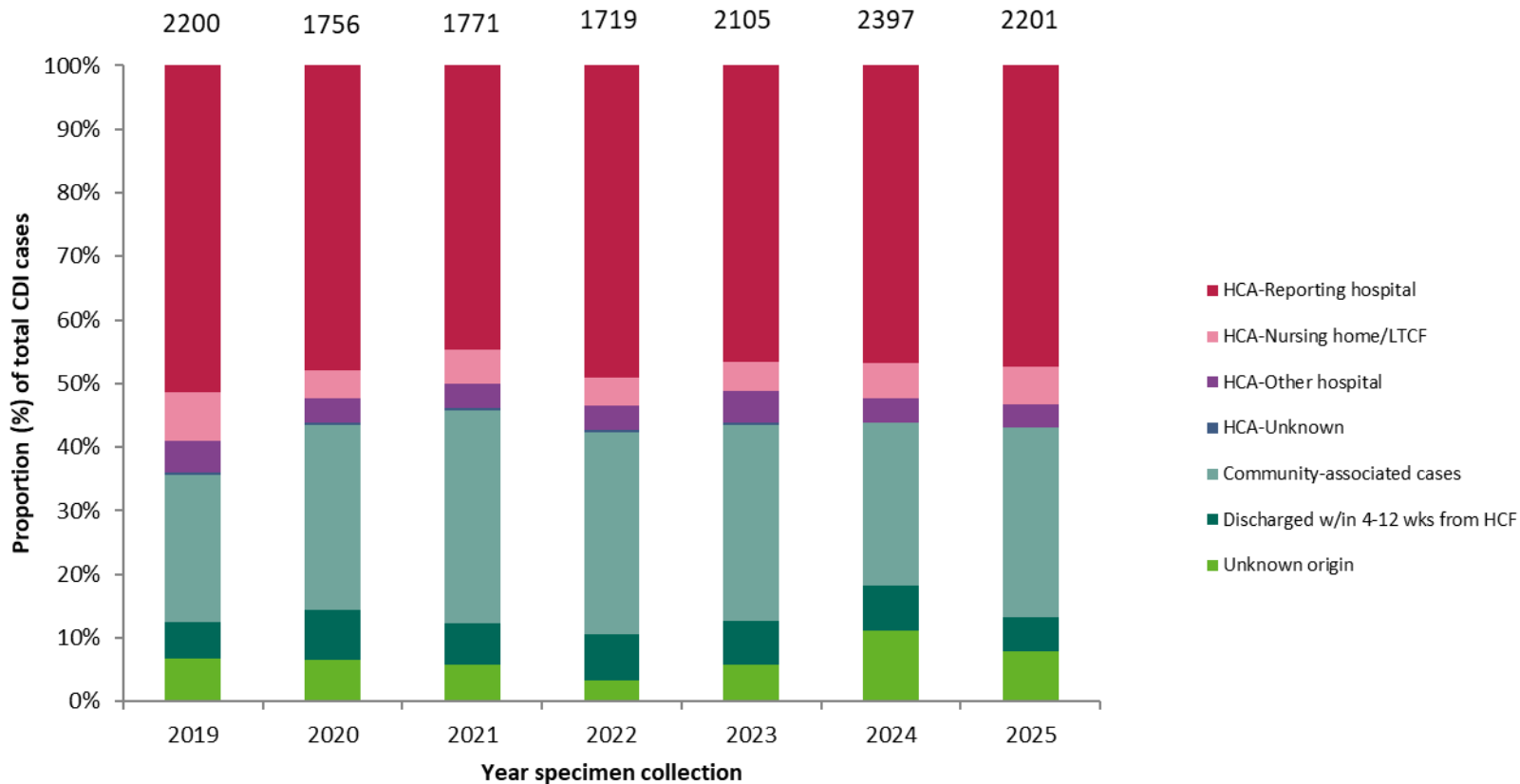
Key Points

- CDI incidence per 100,000 population increases steeply with age, particularly from 75 years onwards
- Highest rates occur in adults ≥ 85 years with similarly high incidence in males and females
- Rates remain low in children and younger adults

Rates calculated using 2022 CSO population census excluding children < 2 years (Source: HPSC)



Origin of CDI in Ireland by facility type



Key Points

- In 2025 healthcare-associated cases from reporting hospitals accounts for approximately 50% of cases, a proportion that has remained broadly stable since 2019
- Community cases remain substantial
- Other categories show little change



Origin of infection with location at onset of symptoms of CDI cases in 2025



			ONSET			Total HCA	Total (%)
			Community onset (CO)	Healthcare onset (HO)	Unknown onset		
ORIGIN	Community-associated* (CA)		588	61	4		653 (30%)
	Healthcare-associated** (HCA)	- Reporting hospital (HA)	175	862	1	1038	1256 (57%)
		- Other hospital	33	45	3	81	
		- Nursing home/LTCF	3	128		131	
		- Unknown	2	4		6	
			213 (17%)	1039 (83%)	4 (0%)		
	Dx 4-12 weeks [†] (UA)		89	27	1		117 (5%)
	Unknown		11	7	157		175 (8%)
Total (%)		901 (41%)	1134 (52%)	116 (8%)		2201	

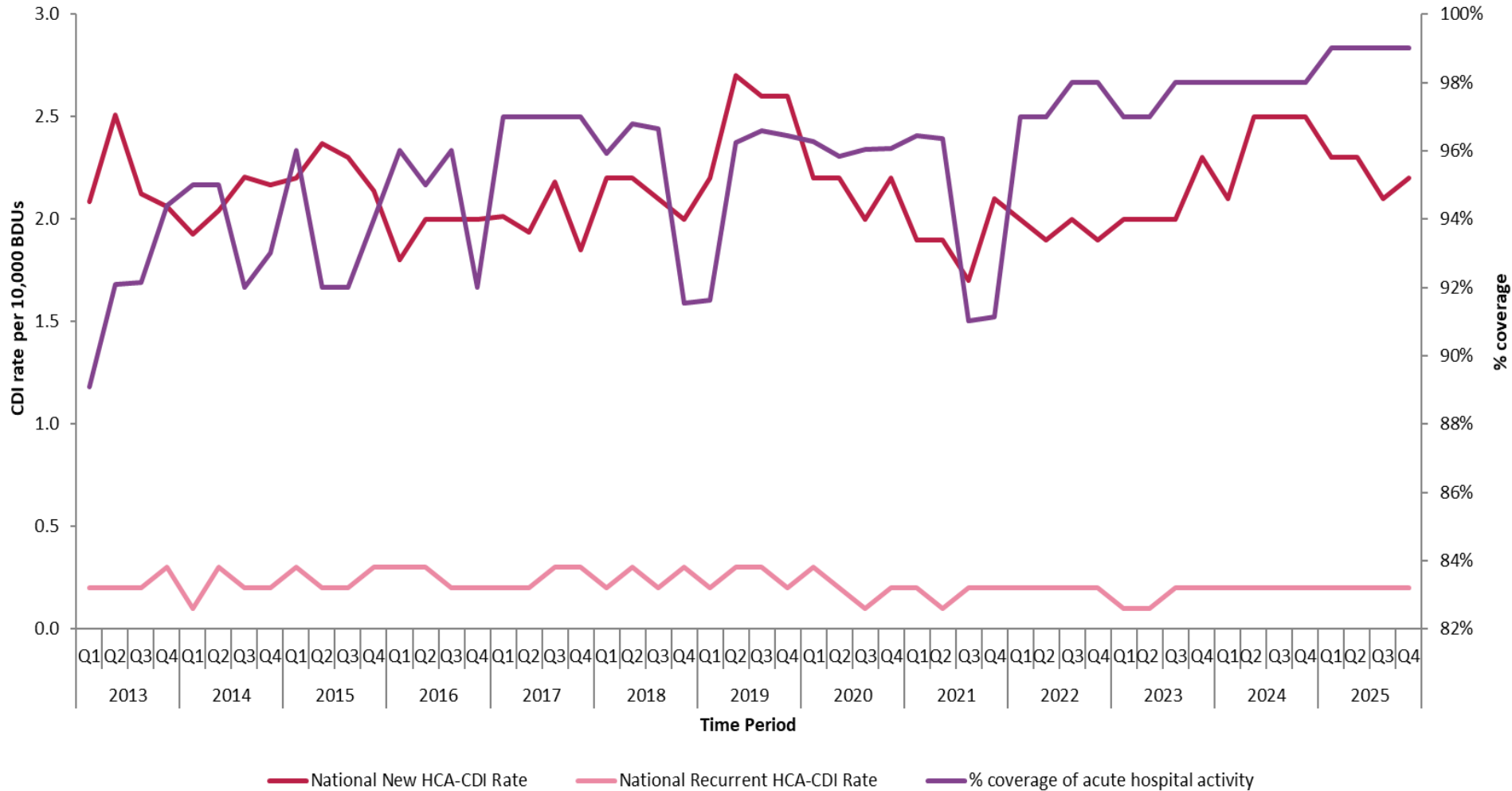
Key Points

- Community-associated (CA): 30% of total CDI cases, of which 41% community onset.
- Healthcare-associated (HCA): 57% of total CDI cases, with 52% healthcare onset. Most HCA cases (83%) are from the reporting hospital.
- Unknown origin: 8% of total CDI cases with 8% unknown onset

Dx 4-12 weeks Discharged 4-12 weeks from Healthcare facility



Quarterly national rate of healthcare-associated CDI (new and recurrent)



Key Points

- New HCA-CDI Rate: remains broadly around 2 per 10,000 BDU with no sustained upward trend.
- Recurrent HCA-CDI Rate: Remains consistently low and stable, below 0.5 per 10,000 BDU.
- Acute Hospital Activity Coverage: Increased steadily to approximately 98%-99% in the more recent years.



CDI sequence typing: 2025 HPSC & NRL matched cases including top three most common types



	Total cases		ST8		ST2		ST11	
	n	%	n	%	n	%	n	%
Total reported cases with sequence typing	790	-	98	12%	91	12%	73	9%
CDI toxin genotype								
<i>tcdA</i> positive	731	93%	98	100%	91	100%	31	42%
<i>tcdB</i> positive*	785	99%	98	100%	91	100%	71	97%
<i>cdtA/cdtB</i> positive	146	18%	0	0%	7	8%	73	100%
CDI cases identified as part of clusters	159	20%	24	24%	19	21%	17	23%
CDI Case Type								
– New	752	95%	96	98%	86	95%	71	97%
– Recurrent	34	4%	2	2%	4	4%	2	3%
– Unknown	4	1%	0	0%	1	1%	0	0%
CDI Origin								
– Healthcare-associated (HCA)	588	74%	78	80%	64	70%	51	70%
– Community associated (CA)	161	20%	14	14%	21	23%	17	23%
– Discharged 4-12 weeks from HCF	37	5%	5	5%	6	7%	5	7%
– Unknown	4	1%	1	1%	0	0%	0	0%
CDI Severity								
Critical care admission or colectomy	19	2%	2	2%	4	4%	1	1%

* The absence of reporting of *tcdB* from some isolates by whole genome sequencing may be related to a truncated (shortened) *tcdB* gene rather than the absence of the gene.

Despite recent international alerts highlighting ST1 as a sequence type of concern due to its association with hypervirulence, ST1 prevalence in Ireland remained very low in 2025 (n= 3 cases).

Key Points

- 790 cases matched between NRL and HPSC in 2025. ST8, ST2 and ST11 were the most frequent types, consistent with 2024
- The proportion of cases identified as part of clusters decreased in 2025 compared to 2024 but remained highest in ST11 & ST 8
- Most matched cases were new and healthcare associated with no major change from 2024.
- Severe cases were uncommon (2% overall) and unchanged from 2024 with slightly higher proportions in ST8 and ST11.



Reported Antibiotic Treatment in 2025



Reported Antibiotic Treatment	Cases (n)	Percentage (%)
Vancomycin	933	61
Fidaxomicin	433	28
Metronidazole	138	9
Combination Therapy		
Metronidazole + Vancomycin	26	2
Fidaxomicin + Vancomycin	4	0
Fidaxomicin + Metronidazole + Vancomycin	1	0
Total	1535	100

Key Points

- Vancomycin was the most commonly reported treatment, prescribed in 61% of cases.
- Fidaxomicin was used in just over one quarter of treated cases (28%). Metronidazole use was relatively low (9%).
- Vancomycin was the most used antibiotic for treating recurrent CDI at 49% followed by fidaxomicin at 39%
- Overall treatment patterns in 2025 were broadly similar to 2024, with vancomycin the most frequently prescribed antibiotic and combination therapy remaining uncommon.

Please note: While treatment type is recorded, treatment outcomes are not captured as part of the enhanced surveillance programme.



Acknowledgments

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- Infection Prevention and Control Nurses,
- Medical Scientists,
- Clinical Microbiologists,
- Public Health
- ECDC

These slides may be copied and reproduced, provided HPSC is acknowledged. Suggested citation:
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HE Technical Notes

- Data are based on statutory notifications and were extracted from Computerised Infectious Disease Reporting (CIDR) system on 9th April 2026. Data are subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.
- Data in this report are presented based on date of notification to the Health Protection Surveillance Centre (HPSC) unless otherwise stated.
- Outbreaks are identified and reported by local prevention and control teams; therefore, outbreak thresholds and reporting practices may vary between hospitals and overtime. Outbreaks are assigned to the year of onset.
- This report contains enhanced cases received up to 15/04/2026. Cases received after this date will be included in subsequent/next report

Further Information

Any queries or feedback are most welcome. Please contact cdifficiledata@hpsc.ie

