Enhanced Surveillance of *Clostridioides difficile* Infection in Ireland

Q1–Q2 2026 National Report

Key Points

- A total of 553 CDI cases were reported through the enhanced surveillance programme in Q2 2026, with 63 of 65 acute public and private hospitals participating, representing the highest level of hospital participation recorded by the programme to date

- During Q2 2026, the national overall rate of CDI in hospitalised patients was 3.7 cases per 10,000 bed days used (n=428), lower than the rate reported in Q2 2025 (4.1 per 10,000 bed days used; n=419).

- There were 291 hospital-acquired CDI (HA-CDI) cases, of which 260 were new cases, giving a national HA-CDI rate of 2.2 per 10,000 bed days used, compared with 2.3 in Q2 2025

- Thirty-seven percent of CDI cases (n=206) had symptom onset in the community, highlighting the importance of CDI awareness, testing, and prevention measures across all healthcare settings.

- Whole genome sequencing of isolates processed by the National Reference Laboratory identified ST11 (15%), ST2 (13%), and ST8 (12%) as the most common sequence types, with 99 identified clusters associated with cases notified during Q1 and Q2 2026.

- An updated CDI enhanced surveillance protocol was introduced in 2026, including a new Healthcare Exposure (HE) category. As a result, some 2026 surveillance data are not directly comparable with previous years.

Introduction

C. difficile (CDI) continues to be a significant concern in healthcare settings, particularly in hospitals and long-term care facilities. This report provides an overview of the current CDI trends, including the incidence, hospital-acquired rates, and sources of infection. It also highlights the results of whole genome sequencing performed on *C. difficile* isolates to better understand the epidemiology and potential outbreaks. This data is essential for monitoring the effectiveness of infection prevention and control measures across healthcare settings.

Methodology

The CDI enhanced surveillance protocol with all details on the programme is available on the HPSC website at:

https://www.hpsc.ie/a-z/microbiologyantimicrobialresistance/clostridioidesdifficile/enhancedsurveillance/

Results

Results are displayed in 4 sections below

Part 1: National CDI Epidemiology

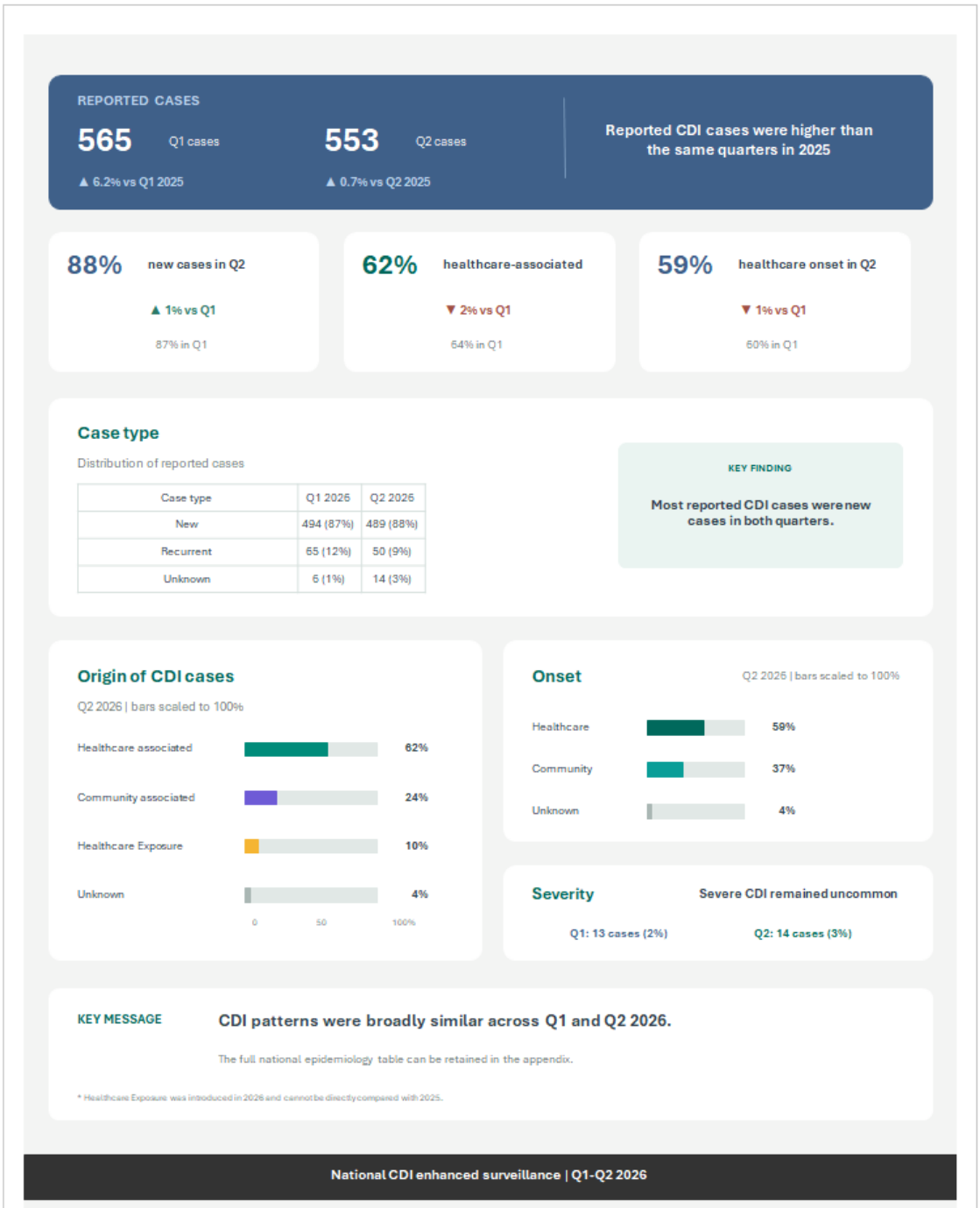
Part 2: Hospital-acquired CDI (HA-CDI) Epidemiology

Part 3: *C. difficile* Testing Methods

Part 4: *C. difficile* Irish National Reference Laboratory (NRL) Genomic Sequence results

Part 1: National CDI Epidemiology

Figure 1. CDI surveillance dashboard, Q1-Q2 2026



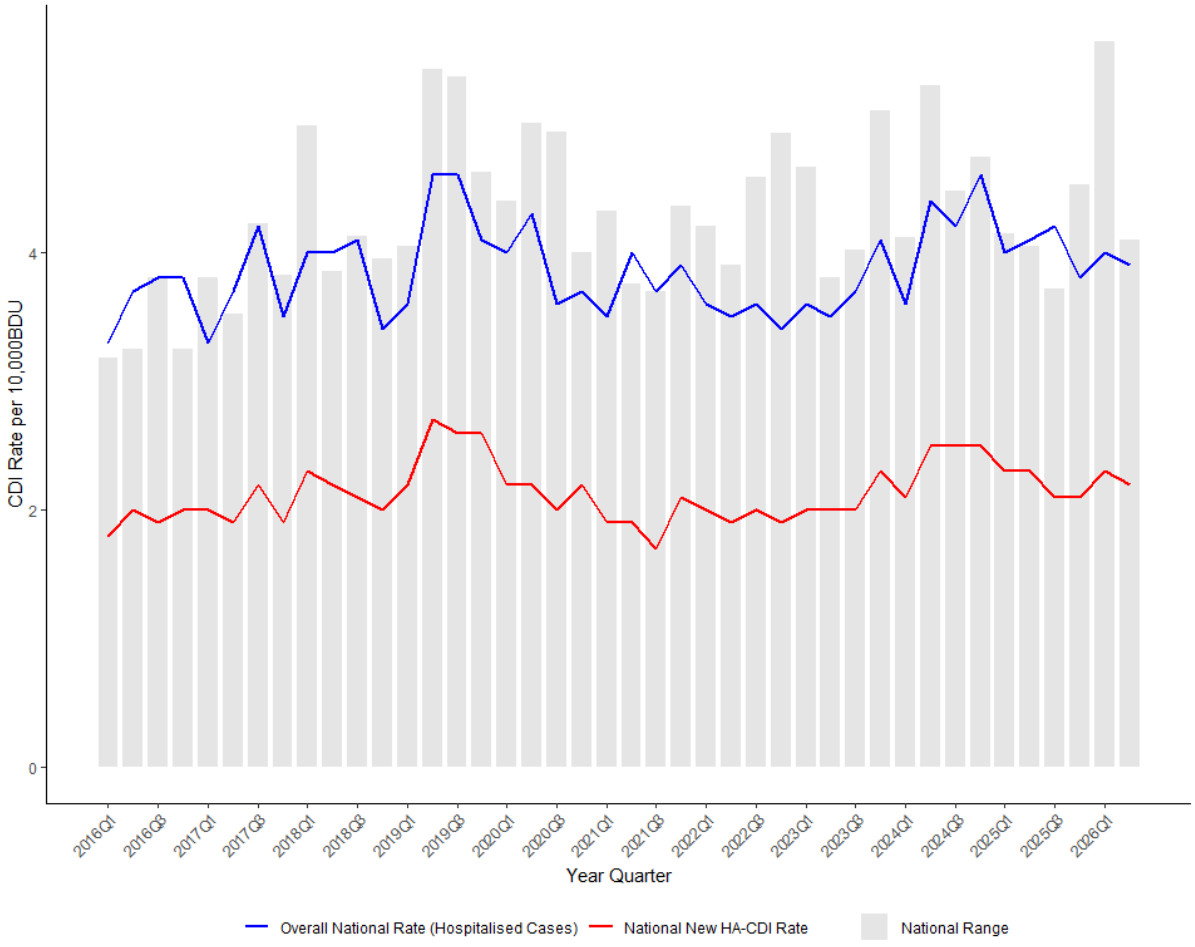
- Since Q3 2025, one tertiary hospital has sent GP and most LTCF specimens to an external laboratory for testing. Cases from this pathway are not included in the enhanced surveillance programme.

Table 1. Severity of illness in this quarter

Surgery (Colectomy)	ICU Admission			Total
	Yes	No	Unknown	
Yes	0	1	0	**1**
No	13	469	0	**482**
Unknown	0	45	25	**70**
Total	**13**	**515**	**25**	**553**

Part 2: Hospital-acquired CDI (HA-CDI) Epidemiology

Figure 2. Quarterly National HA-CDI rates over the last ten years



Overall National Rate (Hospitalised Cases) = rate of all cases per 10,000 bed days used where Yes has been recorded for Hospital admission. National New HA-CDI Rate = the rate of new healthcare-associated CDI cases per 10,000 bed days used, where case type is recorded as 'New', origin is 'HCAI', and origin facility is 'This hospital'.

Table 2. Quarterly HA-CDI data over the last two years

YearQ	Number of hospitals	Number of Cases Reported				CDI rate per 10,000 BDUs		
		New	Recurrent	Unknown	Total	Rate	Range	Median
2024Q3	57	257	20	1	278	2.5	0.0–4.5	1.4
2024Q4	57	257	20	2	279	2.5	0.0–4.7	1.0
2025Q1	58	243	22	2	267	2.3	0.0–4.1	0.6
2025Q2	58	240	32	1	273	2.3	0.0–4.0	1.2
2025Q3	59	224	23	1	248	2.1	0.0–3.7	1.2
2025Q4	60	230	20	0	250	2.1	0.0–4.5	1.3
2026Q1	63	268	30	0	298	2.3	0.0–5.6	1.3
2026Q2	63	260	31	0	291	2.2	0.0–4.1	1.2

Part 3: *C. difficile* Testing Methods

All participating hospitals reported using a *C. difficile* testing method recommended in the National Clinical Guidelines (2014), either a two-step algorithm or a single-step PCR test for the *C. difficile* toxin gene (Table 4).

The most recent European guidelines (ESCMID, 2021) recommend the use of a two-step testing algorithm, due to concerns about the specificity of single-step molecular tests when used alone.

Table 3 . *C. difficile* testing methods utilised in current quarter, by hospital type.

Test Category	Hospital Type				
	General	Private	Specialist	Tertiary	Total
1 STEP: PCR for toxin gene	2	0	3	0	**5**
1 STEP: Toxin EIA (some PCR confirmation)	0	0	1	0	**1**
2 STEP: GDH and Toxin EIA	0	2	0	0	**2**
2 STEP: GDH and Toxin EIA with Toxin PCR confirmation	4	7	2	0	**13**
2 STEP: GDH EIA and Toxin PCR	3	0	0	0	**3**
2 STEP: PCR and EIA confirmation	17	5	8	9	**39**
Total	**26**	**14**	**14**	**9**	**63**

Part 4: *C. difficile* Irish NRL Genomic Sequence results

Table 4 . CDI NRL sequence results matched with HPSC enhanced data.

	Total cases		ST11		ST2		ST8	
	n	%	n	%	n	%	n	%
Total reported cases with sequence typing	**442**	-	**65**	-	**57**	-	**51**	-
CDI toxin genotype								
tcdA positive	430	97	60	92	55	96	51	100
tcdB positive	442	100	65	100	57	100	51	100
cdtA/cdtB positive	87	20	63	97	3	5	3	6
CDI cases identified as part of clusters	**99**	**22**	**15**	**23**	**17**	**30**	**12**	**24**
CDI case type								
New Cases	413	93	59	91	53	93	45	88
Recurrent cases	26	6	6	9	4	7	6	12
Unknown cases	3	1	0	0	0	0	0	0
CDI Origin								
-Healthcare Associated cases	351	79	51	78	48	84	40	78
-Community associated cases	44	10	4	6	5	9	7	14
-Healthcare Exposure	42	10	10	15	4	7	4	8
-Unknown Origin	5	1	0	0	0	0	0	0
CDI Severity								
Critical Care admission or colectomy	19	4	1	2	4	7	-	-

The NRL received 329 *C. difficile* isolates in Q1 2026 and 308 *C. difficile* isolates in Q2 2026 (total n=637) spanning 29 hospitals nationally out of which 442(69%) matched with the enhanced surveillance programme at the HPSC as displayed in Table 5. (Please note not all isolates sent to NRL are notifiable CDI cases, isolates can be sent for epidemiological studies, further investigation and so forth. Reason for typing is not currently recorded

For genomic data, please refer to the Public Health Laboratory Dublin website or contact the National Reference Laboratory directly at cdiff.nrl@hse.ie

The continued development of this Irish national reference laboratory service will add significantly to the understanding of the epidemiology of this significant infection and ultimately influence its control and preventative actions, both here in Ireland and internationally.

Acknowledgments

The HPSC & National Reference Laboratory Service for *C. difficile* would like to sincerely thank all who have contributed to this report, especially Surveillance Scientists, Infection Prevention and Control Nurses, Infection and Prevention Control teams, Medical Scientists, Clinical Microbiologists, along with all the staff of the Departments of Public Health across Ireland.

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

Appendix A: National CDI Enhanced Surveillance Participating Hospitals

HSE Group	Hospital Name	Category	Type of Hospital	Area
Dublin & Midlands	Coombe Women and Infant's University Hospital	Specialist	-	B
	Midland Regional Hospital Mullingar	General	Model 3	B
	Midland Regional Hospital Portlaoise	General	Model 3	B
	Midland Regional Hospital Tullamore	General	Model 3	B
	Naas General Hospital	General	Model 3	B
	St James's Hospital	Tertiary	Model 4	B
	St Luke's Hospital, Dublin	Specialist	-	B
	Tallaght University Hospital	Tertiary	Model 4	B
Dublin & South East	Lourdes Orthopaedic Hospital, Kilcreene, Kilkenny	Specialist	-	C
	National Maternity Hospital, Holles Street	Specialist	-	C
	National Rehabilitation Hospital, Dun Laoghaire	Specialist	-	C
	Royal Victoria Eye & Ear Hospital, Dublin	Specialist	-	C
	St Columcille's Hospital, Loughlinstown	General	Model 2	C
	St Luke's General Hospital, Kilkenny	General	Model 3	C
	St Michael's Hospital, Dun Laoghaire	General	Model 2	C
	St Vincent's University Hospital	Tertiary	Model 4	C
	Tipperary University Hospital	General	Model 3	C
	University Hospital Waterford	Tertiary	Model 4	C
	Wexford General Hospital	General	Model 3	C
Dublin & North East	Beaumont Hospital	Tertiary	Model 4	A
	Cavan General Hospital	General	Model 3	A
	Connolly Hospital, Blanchardstown	General	Model 3	A
	Louth County Hospital, Dundalk	General	Model 2	A
	Our Lady of Lourdes Hospital, Drogheda	General	Model 3	A
	Mater Misericordiae University Hospital	Tertiary	Model 4	A
	Cappagh National Orthopaedic Hospital, Dublin	Specialist	-	A
	Our Lady's Hospital, Navan	General	Model 3	A
	Rotunda Hospital Dublin	Specialist	-	A
West & North West	Letterkenny University Hospital	General	Model 3	F
	Mayo University Hospital	General	Model 3	F
	Portiuncula University Hospital	General	Model 3	F
	Roscommon University Hospital	General	Model 2	F
	Sligo University Hospital	General	Model 3	F
	University Hospital Galway	Tertiary	Model 4	F
South West	Bantry General Hospital	General	Model 2	D
	Cork University Hospital	Tertiary	Model 4	D
	Cork University Maternity Hospital	Specialist	-	D
	University Hospital Kerry	General	Model 3	D
	Mallow General Hospital	General	Model 2	D
	Mercy University Hospital, Cork	General	Model 3	D
	South Infirmary - Victoria University Hospital, Cork	General	Model 2	D
Mid West	Croom Hospital	Specialist	-	E
	Ennis Hospital	General	Model 2	E
	Nenagh Hospital	General	Model 2	E
	St John's Hospital	General	Model 2	E
	University Hospital Limerick	Tertiary	Model 4	E
	University Maternity Hospital Limerick	Specialist	-	E
Private Hospitals	Aut Even, Kilkenny	Private	-	
	Beacon Hospital, Dublin	Private	-	
	Blackrock Clinic	Private	-	
	Bon Secours, Cork	Private	-	
	Bon Secours, Galway	Private	-	
	Bon Secours, Glasnevin	Private	-	
	Bon Secours, Tralee	Private	-	
	Galway Clinic	Private	-	
	Hermitage Medical Clinic, Dublin	Private	-	
	Mater Private, Dublin	Private	-	
	Mater Private, Cork	Private	-	
	St Vincents Private Hospital	Private	-	
	UPMC Kildare	Private	-	
	UPMC Sports Surgery Clinic	Private		
	UPMC Waterford	Private	-	
Children's Health Ireland	Children's Health Ireland at Crumlin	Specialist	-	
	Children's Health Ireland at Tallaght	Specialist	-	
	Children's Health Ireland at Temple St	Specialist	-	

Appendix B: Case definitions for CDI Enhanced Surveillance

Case Definitions for Surveillance of *Clostridioides difficile* Infection

***For surveillance purposes, a confirmed Clostridioides difficile* infection (CDI) case is a patient two years or older, to whom one or more of the following criteria applies:**

- Diarrhoeal* stools or toxic megacolon, with either a positive laboratory assay for *C. difficile* toxin A (TcdA) and/or toxin B (TcdB) in stools or a toxin-producing *C. difficile* organism detected in stool via culture or other means.
- Pseudomembranous colitis (PMC) revealed by lower gastrointestinal endoscopy.
- Colonic histopathology characteristic of *C. difficile* infection (with or without diarrhoea) on a specimen obtained during endoscopy, colectomy or autopsy.

*** Diarrhoea is defined as three or more loose/watery bowel movements (which are unusual or different for the patient) in a 24 hour period**

CASE TYPE

- **New Case of CDI:**
  - The first episode of CDI, **OR**
  - A subsequent episode of CDI with onset of symptoms **more than eight weeks** after the onset of a previous episode.

- **Recurrent Case of CDI:**
  - A patient with an episode of CDI that occurs **within eight weeks** following the onset of a previous episode **provided that CDI symptoms from the earlier episode resolved with or without therapy.**

ONSET

- **Healthcare onset** » Symptoms start during a stay in a healthcare facility.
- **Community onset** » Symptoms start in a community setting, outside healthcare facilities.
- **No information available** » If no information was available on onset of symptoms

ORIGIN

- **Healthcare-associated case.** This is a CDI patient with either:
  - Onset of symptoms at least 48 hours following admission to a healthcare facility (healthcare-onset, healthcare-associated), OR
  - With onset of symptoms in the community within four weeks following discharge from a healthcare facility (community-onset, healthcare-associated).
- **Community-associated case.** This is a CDI patient with either:
  - Onset of symptoms while outside a healthcare facility, and without discharge from a healthcare facility within the previous 12 weeks (community-onset, community-associated), OR
  - With onset of symptoms within 48 hours following admission to a healthcare facility without residence in a healthcare facility within the previous 12 weeks (healthcare-onset, community-associated).
- **Healthcare exposure**
  - Onset 4-12 weeks from the last admission to a healthcare facility with at least one overnight stay (HE: Dx 4-12 weeks HCF) OR
  - Onset within 12 weeks from outpatient procedures or day care not requiring an overnight stay (HE: Ambulatory care)
- **No information available**

SEVERE CDI CASE

This is a CDI patient to whom any of the following criteria apply:

- Admission to an intensive care unit for treatment of CDI or its complications (e.g., for shock requiring vasopressor therapy)
- Surgery (colectomy) for toxic megacolon, perforation or refractory colitis
- Death within 30 days after diagnosis if CDI is either the primary or a contributive cause

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