

# 1607 cases of *Clostridium difficile* reported in 2008

1607 cases of *Clostridium difficile*-associated disease (CDAD) were reported to the Health Protection Surveillance Centre in 2008, giving a national crude incidence rate (CIR) of 37.9 cases per 100,000 population, as shown in table 1. Recurrent CDAD cases are not notifiable.



All new CDAD cases were laboratory confirmed. As *Clostridium difficile* only became a notifiable disease in Ireland – under the category of acute infectious gastroenteritis – on 4th May 2008, this figure accounts for eight months of the year.

National *Clostridium difficile* guidelines are available from the HPSC.

Table 1 provides an estimate for the expected number of cases and the projected CIR in a full year.

A CDAD case is defined as 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).

More cases were notified in females - 61% - and in older patients, as shown in figure 1. The over 65 age category has the highest calculated age specific incidence rate (ASIR) at 245 per 100,000, and the highest overall incidence rate. 1147 of the national total were aged 65 or over and oldest person to contact CDAD was 103.

Table 1. CDAD in Ireland by HSE area 2008

HSE Region	No. Cases	CIR incl. 95% CI	Estimated No. Cases**	Estimated CIR incl. 95% CI**
East	758	50.5 [46.9 - 54.1]	1126	75.1 [70.7-79.5]
Midlands	37	14.7 [10.0 - 19.4]	55	21.9 [16.1-27.6]
Mid West	80	22.2 [17.3 - 27.0]	119	33.0 [27.0-39.0]
North east	36	9.1 [6.2 - 12.1]	53	13.5 [9.8-17.1]
North West	95	40.1 [32.0 - 48.1]	141	59.5 [50.0-69.3]
South East	122	26.5 [21.8 - 31.2]	181	39.3 [33.6-45.0]
South	256	41.2 [36.2 - 46.3]	380	61.2 [55.0-67.3]
West	223	53.8 [46.8 - 60.9]	331	80.0 [71.3-88.5]
<b>Total</b>	<b>1607</b>	<b>37.9 [36.0 - 39.8]</b>	<b>2388</b>	<b>56.32 [54.1-58.6]</b>

\*Rates calculated using 2006 census data

\*\*Using the number of notifications over this 35 week period, the estimated CIR for a 52 week period has been calculated

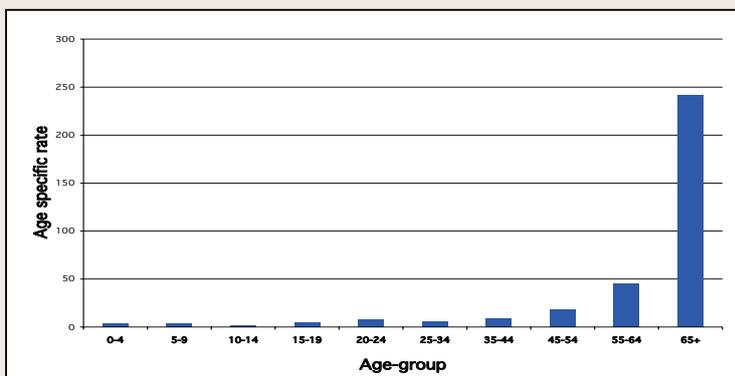


Figure 1: Age-specific incidence rate of CDAD in Ireland, Weeks 19-53, 2008, per 100,000 populations

Table 2: *C. difficile* associated outbreaks, Weeks 01 – 53, 2008

Region	Organism/ Pathogen	Type	Transmission mode	Location	Number ill
E	<i>C difficile</i>	General	P-P	Hospital	42
S	<i>C difficile</i>	General	Not Specified	Comm. Hosp/Long-stay	8
S	<i>C difficile</i>	General	P-P	Hospital	5
S	<i>C difficile</i>	General	Unknown	Hospital	11
S	<i>C difficile</i> and Norovirus	General	P-P and Airborne	Residential institution	12
W	<i>C difficile</i>	General	Unknown	Hospital	18

Patients classified as "hospital inpatient" had the highest occurrence of cases accounting for 52.7% of all cases notified. Of the remaining, 6% were classified as GP patients, 2.7% hospital outpatient, 1.2% 'other', 0.3% hospital day patient and 27% as either "not specified" or "unknown". Healthcare institutions reported the most cases of CDAD (53%). This information represents the location of patient at diagnosis only. Enhanced information is required to determine the onset and origin of infection.

Five *Clostridium difficile* outbreaks and one mixed *C. difficile* and Norovirus outbreak were notified in 2008, as shown in table 2. All notified CDAD outbreaks were health-care associated.

For now, seasonal trends are indistinguishable as the dataset is not complete. Identification of seasonal patterns is also hindered by late notifications and batch notifications from some institutions. Regional CIR varies greatly, which may be due to differences in testing criteria and/or available testing facilities.

National guidelines for the surveillance, diagnosis, management, prevention and control of CDAD in Ireland are available at [www.hpsc.ie/hpsc/A-Z/Gastroenteric/Clostridiumdifficile/](http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Clostridiumdifficile/)

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