

3.1 Campylobacter

Summary

Number of cases in 2007: 1891
 Number of cases in 2006: 1815
 Crude incidence rate: 45/100,000

Campylobacter is the commonest bacterial cause of gastroenteritis in Ireland. In 2007, 1891 cases of Campylobacter infection were notified (44.6/100,000 population). There is a continuing increase in the number of cases notified (up by 76 cases in 2007). This is reflected in the crude incidence rate which increased from 42.8 in 2006 to 44.6 in 2007, which is the highest rate reported in Ireland since 1999 (table 1).

Campylobacter became a notifiable disease in Ireland in 2004. Prior to this, data on laboratory-confirmed cases of Campylobacter infection in humans were collected nationally as part of the EU Zoonoses Regulations.

Regionally, the HSE-W and HSE-M continue to experience high incidence rates. The HSE-W region had a rate of 62.7 in 2007, which is an increase of 12.6 over 2006 levels. Similarly the HSE-M region had a rate

of 58.0, an increase of 8.6 over 2006 levels. The HSE-NE region reported the lowest rate of 35.8 in 2007 (figure 3).

Campylobacter has a well documented seasonal distribution with a peak in early summer. The highest number of cases were reported in May with 254 in the month. Seventy four cases were notified in December.

In 2007, the highest burden of illness was seen in children less than five years of age, with 25.6 % of cases occurring in this age-category (An age-specific incidence rate of 159.8 cases/100,000 was reported in the 0-4 age group). This is also noted in previous years and is a well-reported feature of campylobacteriosis.

Analysis of age-sex adjusted rates show a predominance of male cases in every age category, except the 15-19 and 25-34 age groups. Males accounted for 53.5% of all cases, females for 45.8% and the gender is unknown in 0.7% of cases.

Due to the absence of a Campylobacter reference facility in Ireland, routine typing of human Campylobacter isolates is not conducted. Information on species type was available for 37% (695/1891) of

Table 1. Annual number of cases of campylobacteriosis in Ireland, 1999-2007

Year	Number of cases	Crude incidence rate (95% CI)
1999	2085	57.5 [55.0 – 60.0]
2000	1613	41.2 [39.2 – 43.2]
2001	1286	32.8 [31.0 – 34.6]
2002	1336	34.1 [32.3 – 35.9]
2003	1568	40.0 [38.0 – 42.0]
2004*	1710	40.3 [38.4 - 42.2]
2005*	1801	42.5 [40.5 - 44.4]
2006*	1815	42.8 [40.8 - 44.8]
2007*	1891	44.6 [42.6 - 46.6]

*rates based on 2006 Census data

isolates. Of these, 91% (n=630) were reported as *C. jejuni*; 9% (n=62) as *C. coli*, one reported case of *C. fetus* and two reported cases of *C. upsaliensis*. *C. upsaliensis* was not reported in Ireland between 2004 and 2006.

In 2007 there were eight family outbreaks and one general outbreak in a residential home of campylobacteriosis notified. A total of 21 cases of illness were associated with these outbreaks. These were all small clusters of illness with no more than three people reported ill in any outbreak.

Information on country of infection was only provided in 14% (257/1891) of cases. Of these, the majority were reported to have been acquired within Ireland (n=229), with just 11% associated with foreign travel. Spain (n=6) and France (n=3) were the most commonly reported countries. There were 16 different countries (excluding Ireland) cited as a country of infection. However the cases reported with known country of infection is considered to be an underestimate of the true burden of travel-associated cases.

In October 2007, co-ordination of European surveillance of Campylobacter via the Enter-net network ceased. The role was assumed by the European centre for Disease Prevention and Control (ECDC). It is one of the six priority diseases covered by the Food and Water Borne Diseases (FWD) network.

In a community summary report on zoonoses, published by European Food Safety Authority (EFSA) on data submitted in 2006, campylobacteriosis remained the most frequently reported zoonotic disease in humans. Campylobacter was determined to be the causative agent in 6.9% of all reported foodborne outbreaks. The EU incidence rate in humans was 46.1 per 100,000 population, however, there is large variation in the incidence of campylobacteriosis reported between member states.

See www.hpsc.ie for more a detailed Campylobacter epidemiology report for 2007

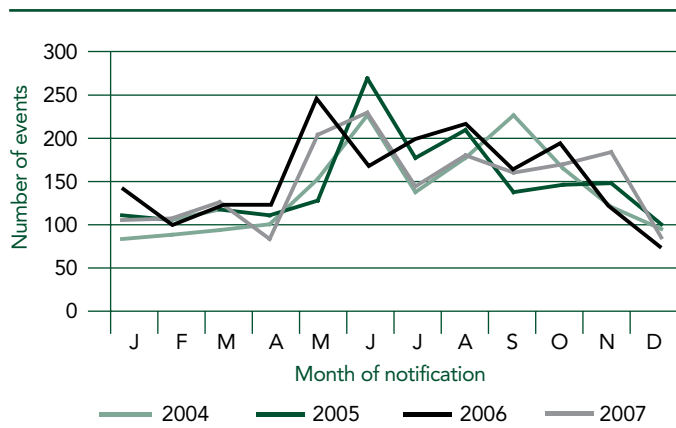


Figure 1. Seasonal distribution of Campylobacteriosis in Ireland, 2004-2007

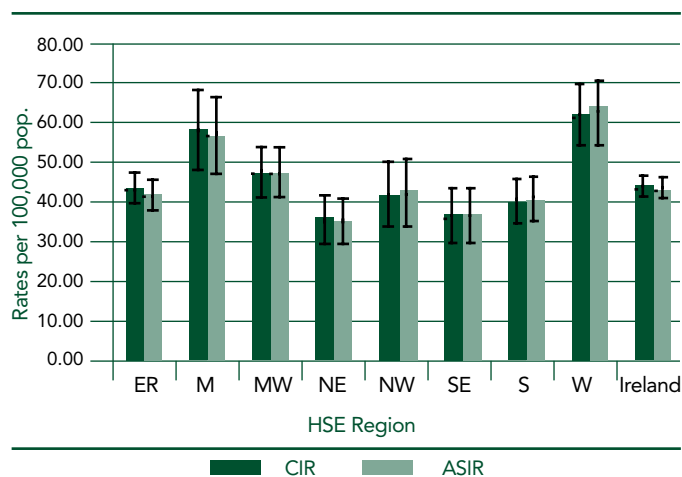


Figure 2. Age standardised incidence rates (ASIR) of human campylobacteriosis in Ireland, compared to crude incidence rates (CIR) in each health board, 2007.