

4.2 Leptospirosis

Summary

Number of cases, 2012: 15
 Crude incidence rate, 2012: 0.33/100,000
 Number of cases, 2011: 16

Fifteen cases of leptospirosis were notified in Ireland in 2012, similar to the 16 cases notified in 2011 (Figure 1). This equates to a crude incidence rate of 0.33 per 100,000 (95% CI 0.16-0.49). The latest year for which data is available across the European Union is 2010. Among the 26 countries that reported leptospirosis incidence in 2010, Ireland reported the joint fourth highest incidence rate after Romania, Slovakia and Slovenia. The incidence in the EU as a whole was 0.13 per 100,000.

The leptospirosis notification dataset is typically dominated by adult males, and this year was no exception (Table 1). Eleven cases (73.3%) were male and the age range was 20-62 (mean age =44 years, median age=48 years). This is consistent with the exposures most commonly associated with leptospirosis in temperate regions, e.g. occupational contact with farm animals, and watersports.

Among the 14 cases for which hospital admission status was reported, 13 (93%) required hospitalization. One person died but their death was due to another medical condition.

Eight cases (53%) were believed to have acquired their illness occupationally –four were either farmers or reported contact with farm environments, one worked in an abattoir, two reported exposure to outdoor environments during the course of their work and the eighth case reported seeing rats in their work

Table 1: Leptospirosis notifications by age and sex, Ireland 2012

Age group	Male	Female	Total
<5 yr	0	0	0
5-14 yrs	0	0	0
15-24 yrs	1	2	3
25-44 yrs	3	1	4
45-64 yrs	7	1	8
65+ yrs	0	0	0
Total	11	4	15

environment. Four (27%) cases were reported as being associated with recreational activities: one with travel to a tropical destination, one with kayaking, and two with freshwater swimming in rivers. One case (7%) was exposed to a rat in their garden, while for two cases (13%), it was not possible to obtain information on risk factors.

Figure 2 shows the trend in notifications by exposure group. The decrease in case numbers reported over the last five years appears to be due to a reduction in the number of recreational cases, with occupational cases now making up the largest proportion of cases in the last three years.

While a number of regional hospital laboratories offer a diagnostic service for leptospirosis, around two thirds of cases are diagnosed by the National Virus Reference Laboratory each year. Positive specimens are generally referred to the United Kingdom's Leptospirosis Reference Unit (LRU) for confirmation

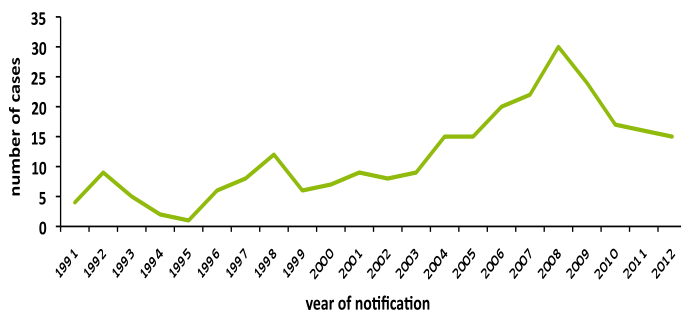


Figure 1: Annual number of leptospirosis notifications, Ireland 1991-2012 (data source: CIDR)

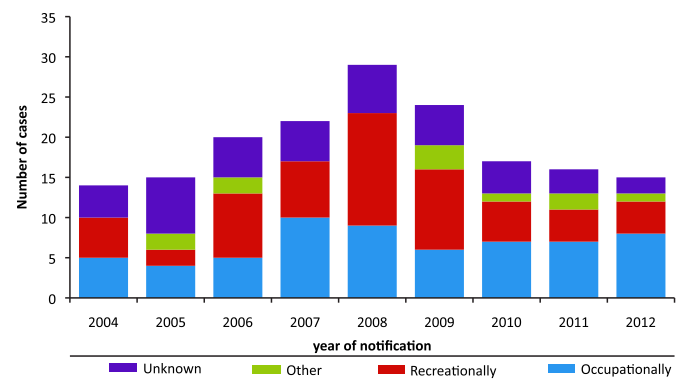


Figure 2: Annual number of leptospirosis notifications by exposure group, Ireland 2004-2012 (data source: CIDR)

and for typing where possible. In 2012, species information was available on CIDR for only three cases (20%)—two *Leptospira icterohaemorrhagiae*, and one *L. saxkoebing*. For many cases, serovar is not determined. Failure to provide follow-up samples is likely to be one contributory factor in this.

Activities that continue to be associated with leptospirosis risk in Ireland include recreational activities such as water sports, and farming. In recent years, travel to Asia and other tropical destinations has emerged as a risk factor for leptospirosis.

HPSC and NVRL recently published a review of leptospirosis in Ireland in the journal *Epidemiology and Infection*, which is available at <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8963217&fulltextType=RA&fileId=S0950268813001775>