

4.2 Leptospirosis

Summary

Number of notifications: 14
Crude incidence rate: 0.31/100,000

Fourteen cases of leptospirosis were notified in Ireland in 2013, similar to the 15 cases notified in 2012 (Figure 1). This equates to a crude incidence rate of 0.31 per 100,000 (95% CI 0.15-0.46). The latest year for which data is available across the European Union is 2011. Among the 27 countries that reported leptospirosis incidence in 2011, Ireland reported the third highest incidence rate after Slovenia and Romania. The incidence in the EU as a whole was 0.22 per 100,000.

The leptospirosis notification dataset is typically dominated by adult males, and this year was no exception (Table 1). Ten cases (71.4%) were male and the age range was 21-65 (mean age =38 years, median age=46 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 12 cases for which hospital admission status was reported, nine (75%) required hospitalization. There were no deaths reported.

Six cases (43%) were believed to have acquired their illness occupationally –three were either farmers or reported contact with farm environments, one reported exposure to outdoor environments during the course of their work and the source of occupational exposure was not specified for the remaining two cases, however they were known to have contact with animals. Five (36%) cases were reported as being associated with recreational activities: two with travel to a tropical destination, two with rowing/kayaking, and one case cited

Table 1: Leptospirosis notifications by age and sex, Ireland 2013

Age group	Male	Female	Total
<5 yr	0	0	0
5-14 yrs	0	0	0
15-24 yrs	2	3	5
25-44 yrs	2	0	2
45-64 yrs	5	1	6
65+ yrs	1	0	1
Total	10	4	14

contact with river water as the source of their infection. One was exposed to a rat in their home, one case had accidental exposure to river water and there were no risk factors identified for the remaining case.

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 and for typing where possible. In 2013, species information was available on

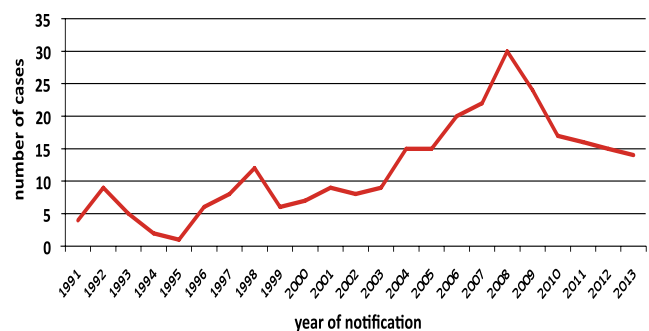


Figure 1: Annual number of leptospirosis notifications, Ireland 1991-2013 (data source: CIDR)

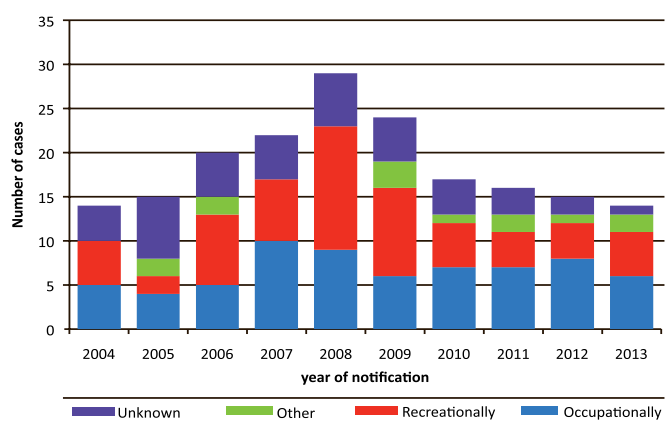


Figure 2: Annual number of leptospirosis notifications by exposure group, Ireland 2004-2013 (data source: CIDR)

CIDR for only two cases (14%)—one *Leptospira icterohaemorrhagiae*, and one *L. hardjo*. 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.