

4.2 Leptospirosis

Summary

Number of cases, 2011: 16
 Crude incidence rate, 2011: .035/100,000
 Number of cases, 2010: 17

Sixteen cases of leptospirosis were notified in Ireland in 2011, similar to the 17 cases notified in 2010 (Figure 1). This equates to a crude incidence rate of 0.35 per 100,000 (95% CI 0.18-0.52). The latest year for which data is available across the European Union is 2009. Among the 25 countries that reported leptospirosis incidence in 2009, Ireland reported the third highest incidence rate. The incidence in the EU as a whole was 0.14 per 100,000.

The leptospirosis notification dataset is typically dominated by adult males, and this year is no exception (Table 1). Fourteen cases (87.5%) were male and the age range was 20-68 (mean age =42 years, median age=42 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 15 cases for which hospital admission status was reported, 12 (80%) required hospitalization. No deaths were reported.

Seven cases (44%) were believed to have acquired their illness occupationally –all were either farmers or reported contact with farm environments. Four (25%) cases were reported as being associated with recreational activities: two with travel to a tropical destination, and one each with kayaking, and freshwater

swimming. Two cases (13%) may have been exposed while gardening, while for one case (6%), no obvious risk factors were identified. No risk factor information was available for the remaining two (13%) cases.

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.

A recent study reviewed the available information on *Leptospira* serovar data on CIDR compared to the typing data available at LRU on Irish cases. This study established that there had been under-reporting of serovar information to CIDR (Garvey et al –submitted for publication). In consequence, Departments of Public Health were encouraged to make a special effort to improve the reporting of *Leptospira* serovar data to CIDR. In 2011, species information was available on CIDR for seven cases (44%) in 2011–three *Leptospira icterohaemorrhagiae*, two *L. hardjo*, and one each *L. saxkoebing* and *L. grippityphosa*. This is a substantial improvement on serovar reporting relative to the previous two years when linked serovar data was reported for only two cases in each year. For many of the remaining cases, it was reported that serovar was not determined. Failure to provide follow-up samples is 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.

Table 1: Leptospirosis notifications by age and sex, Ireland 2011

Age group	Male	Female	Total
<5 yr	0	0	0
5-14 yrs	0	0	0
15-24 yrs	1	1	2
25-44 yrs	7	1	8
45-64 yrs	4	0	4
65+ yrs	2	0	2
Total	14	2	16

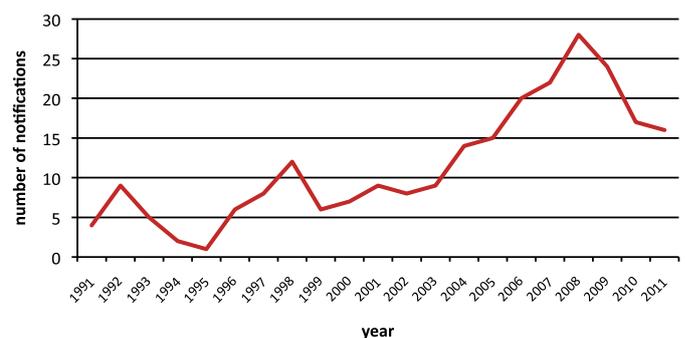


Figure 1: Annual number of leptospirosis notifications, Ireland 1991-2011 (data source: CIDR)