

## 4.2 Leptospirosis

### Summary

Twenty-three cases of leptospirosis were notified in Ireland in 2014, an increase compared to 13 cases notified in 2013 (Figure 1). This equates to a crude incidence rate (CIR) of 0.15 per 100,000 population. The latest year for which data is available across the European Union is 2012. Among the 27 countries that reported leptospirosis incidence in 2012, Ireland reported the fifth highest incidence rate after Estonia, Malta, Lithuania and Romania. The incidence in the EU as a whole was 0.1 per 100,000.

The age range of cases was 16-74 (mean age =42 years, median age=43 years). Cases in the younger age groups were mainly associated with recreational exposure and history of foreign travel while older cases were mainly indigenous and associated with occupational exposure. Figure 1 illustrates the annual trend by travel history. The leptospirosis notification dataset is typically dominated by adult males, and this year was no exception with male cases accounting for 87% of cases (Table 1).

Thirteen cases (56.5%) were believed to have acquired their illness occupationally, seven of whom were either farmers or reported contact with farm environments while the remaining six occupationally acquired cases

reported contact with rats or other animals. Five (21.7%) cases were reported as being associated with recreational activities, four of whom reported river water exposure Thailand. One case reported both recreational and occupational exposures and one case had accidental exposure to farm animals. No risk factors were reported for the remaining three cases but one case reported recent travel history to multiple countries in SE Asia. Figure 2 shows the trend in notifications by exposure group and year.

Table 1: Leptospirosis notifications by age and sex, 2014

Age group (years)	Male	Female	Total
0-4	0	0	0
5-14 yrs	0	0	0
15-24 yrs	2	3	5
25-44 yrs	1	6	7
45-64 yrs	0	8	8
65+ yrs	0	3	3
<b>Total</b>	<b>3</b>	<b>20</b>	<b>23</b>

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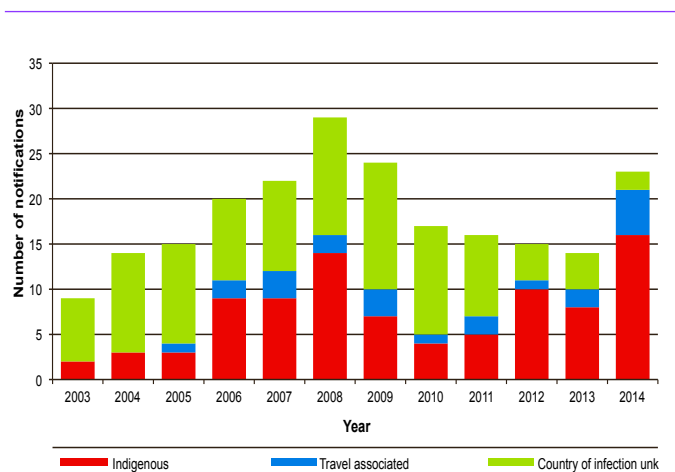


Figure 1: Annual number of leptospirosis notifications by year and travel history (Data source: CIDR)

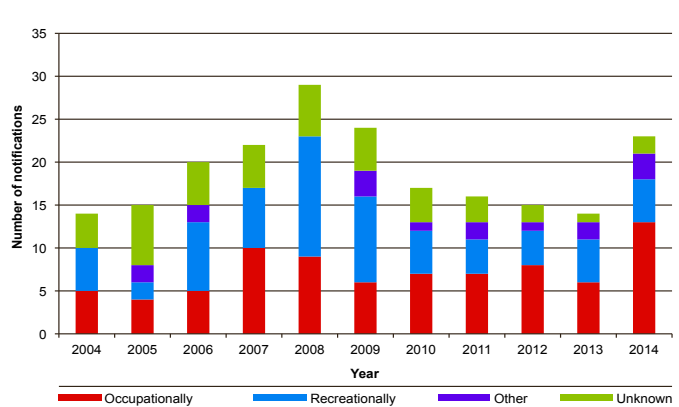


Figure 2: Annual number of leptospirosis notifications by exposure group by year (Data source: CIDR)

Among the 20 cases for which hospital admission status was reported, 15 (75%) required hospitalization. There were no deaths reported.

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 2014, species information was available on CIDR for only three cases (13%)—one was *Leptospira ballum* and two were *L. interrogans hardjo*.

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.