

2.5 Tuberculosis, 2014 and outcome data for 2013

Summary

2013: 372 (8.1/100,000 population)

2014: 318 (6.9/100,000 population)

In 2014, 318 cases of tuberculosis (TB) were notified in Ireland, corresponding to a crude incidence rate (CIR) of 6.9 per 100,000 population, a decrease compared to 2013 (8.1/100,000 population)*. A summary of the epidemiology of TB in Ireland during 2013 and 2014 is shown in table 1 while the number of notifications and CIR from 1991 to 2014[†] with three-year moving averages is illustrated in figure 1. Outcome data will not be available for cases diagnosed during 2014 until February 2016.

Regional distribution:

The highest crude incidence rate in both 2013 and 2014 was reported by HSE-S (9.9) while the lowest rate was reported by HSE-M (5.7) in 2013 and HSE-W (3.8) in 2014.

The highest age-specific rate (ASIR) in 2014 was observed in those aged 65 years and older (13.1) while

the highest ASIR in 2013 occurred among those aged 25-34 years (11.7). For both years, rates among males were higher than females for all age groups except in the 15-24 year age group in 2013 and the 35-44 year age group in 2014. The highest rate among males in 2014 occurred in those aged 65 years and older (16.9) while the highest rate in 2013 (15.1) occurred in males aged 55-64 years. The highest rate in females in 2014 occurred in those aged 65 years and older (9.9) and those aged 25-34 years (9.8) while in 2013 it occurred in the 15-24 year age group (10.1). The male to female ratio (1.7:1) reported in 2013 was consistent with the ratio reported in previous years, while it was slightly lower during 2014 (1.2:1).

Geographic origin

During 2014, 43.1% (137 cases) of TB cases were born outside Ireland, a slight decrease from the proportion reported in 2013 (44.9%). The crude rate in the foreign-born population decreased from 21.8 per 100,000 in 2013 to 17.9 per 100,000 in 2014. The crude rate in the indigenous population was 4.7 per 100,000 in 2014, which decreased slightly compared to 5.4 per 100,000 reported in 2013. There was a notable difference in age between indigenous and foreign born cases, with a

Table 1: Summary of the epidemiology of TB in Ireland, 2013 and 2014

| Parameter | 2013 | | | 2014 | | |
|--|-----------------|------|------------|-----------------|------|------------|
| | Number of cases | CIR | % of total | Number of cases | CIR | % of total |
| Total number of cases | 372 | 8.1 | n/a | 318 | 6.9 | n/a |
| Cases in indigenous population | 202 | 5.4 | 54.3 | 177 | 4.7 | 55.7 |
| Cases in foreign-born persons [‡] | 167 | 21.8 | 44.9 | 137 | 17.9 | 43.1 |
| Culture positive cases | 281 | 6.1 | 75.5 | 231 | 5.0 | 72.6 |
| Pulmonary cases | 249 | 5.4 | 66.9 | 196 | 4.3 | 61.6 |
| Smear positive pulmonary cases | 127 | 2.8 | 34.1 | 91 | 2.0 | 28.6 |
| Multi-drug resistant cases | 4 | 0.09 | 1.1 | 2 | 0.04 | 0.6 |
| Mono-resistant to isoniazid | 19 | 0.4 | 5.1 | 8 | 0.2 | 2.5 |
| Deaths attributable to TB | 6 | 0.1 | 1.6 | n/a | n/a | n/a |
| Outcomes reported in cases [§] | 294 | 6.4 | 79.0 | n/a | n/a | n/a |
| TB meningitis cases | 3 | 0.07 | 0.8 | 2 | 0.04 | 0.6 |

*All crude incidence rates (CIR) are calculated per 100,000 population unless otherwise stated.

[†]Data for 2014 are provisional data which may change significantly following validation

[‡]Country of birth was missing for 4 cases in 2014 and for 3 cases in 2013.

median age of 58 years in 2014 and 47 years in 2013 in Irish-born cases, compared to 34 years in 2014 and 35 years in 2013 in foreign-born cases.

Site of infection

During 2014, pulmonary TB was reported in 196 (61.8%) cases and 121 (38.2%) had exclusively extrapulmonary disease while in 2013, 249 cases (66.9) were pulmonary and 123 (33.1) were exclusively extrapulmonary. Of the extrapulmonary cases reported, there were three cases of TB meningitis in 2013 (0.07/100,000 population) and two in 2014 (0.04/100,000 population).

Microbiology

Of the 318 cases reported in 2014, 72.6% (231 cases) were culture confirmed. Of the 196 cases with a pulmonary component reported, 159 (81.1%) were reported as culture confirmed and 91 (46.4%) were reported as smear positive. Of the 372 cases reported in 2013, 75.5% (281 cases) were culture confirmed. Of the 249 cases with a pulmonary component reported, 207 (83.1%) were reported as culture confirmed and 127 (51.0%) were reported as smear positive.

Drug sensitivity

Information on antibiotic sensitivity testing was available for 230 (99.6%) of 231 culture confirmed cases in 2014 and 272 (96.8%) of the 281 culture confirmed cases in 2013. In 2014, there were 17 (7.4%) documented resistant cases, two (0.6% of total cases) of which were MDR-TB cases. In 2013 there were 32 (11.8%) documented resistant cases, three (0.8% of total cases) of which were MDR-TB of which one was an XDR-TB case (0.3% of total cases). This is the second XDR-TB case reported since enhanced surveillance began in 2000. The previous XDR-TB case was reported in 2005.

Outcomes for 2013 cases

In 2013, information on treatment outcome was

provided for 79.0% (294) of cases, similar to 78.3% in 2012. Treatment outcome was reported as completed for 229 (61.6%) cases, 10 were still on treatment (2.7%), 18 (4.8%) cases died, 16 (4.3%) were lost to follow up, 14 cases transferred out (3.8%), seven (1.9%) had treatment interrupted. Six (1.6% of total cases) of the 18 deaths were reported as attributable to TB.

Outbreaks

The introduction of the amendment to the Infectious Disease Regulations 1981 on January 1st 2004, made outbreaks, unusual clusters or changing patterns of illness statutorily notifiable by medical practitioners and clinical directors of laboratories to the medical officer of health. Standard reporting procedures for surveillance of TB outbreaks were formally agreed in 2007.

During 2014, five outbreaks of TB were reported to HSPC, a decrease compared to 2013. Twenty cases of active TB and 10 cases of latent TB infection (LTBI) were reported. Three outbreaks were reported by HSE-S and one each was reported by HSE-E and NE. Two general outbreaks were reported, one occurred in a community setting and one occurred in a public house. There were also three family outbreaks, two were in private houses and one occurred across an extended family.

During 2013, 12 outbreaks of TB were reported to HSPC, with 46 reported cases of active TB, 174 with latent TB infection (LTBI) and 17 hospitalisations. Three outbreaks each were reported by HSE-E, -S and -W, two outbreaks by HSE-MW and one by HSE-SE. There were seven general outbreaks, four in a community setting and one each in a university/college, a workplace and a residential institution. There were also five family outbreaks, three of which occurred across extended families and two were in private houses. The number of outbreaks reported during 2013 increased compared

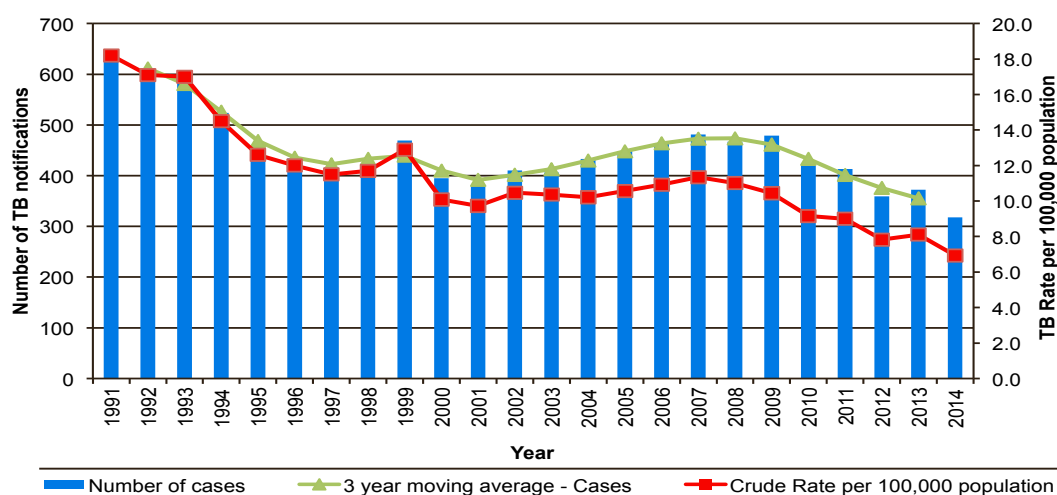


Figure 1: Notified cases of TB in Ireland with CIR per 100,000 population, 1991 to 2014 and 3-year moving averages, 1992-2014

to 2012, while the number of cases of LTBI reported as associated with the outbreaks increased sharply.

Figure 2 shows a summary of reported TB outbreaks from 2004 to 2014 by year of outbreak, number of active TB cases and number of persons with LTBI. Please note that numbers of LTBI for outbreaks reported during 2013 and 2014 are provisional and may increase as outbreak investigations continue.

Further details on the epidemiology of TB cases reported in 2013 and 2014 will be available in the HPSC Report on the Epidemiology of TB in Ireland, 2013-2014 (www.hpsc.ie).

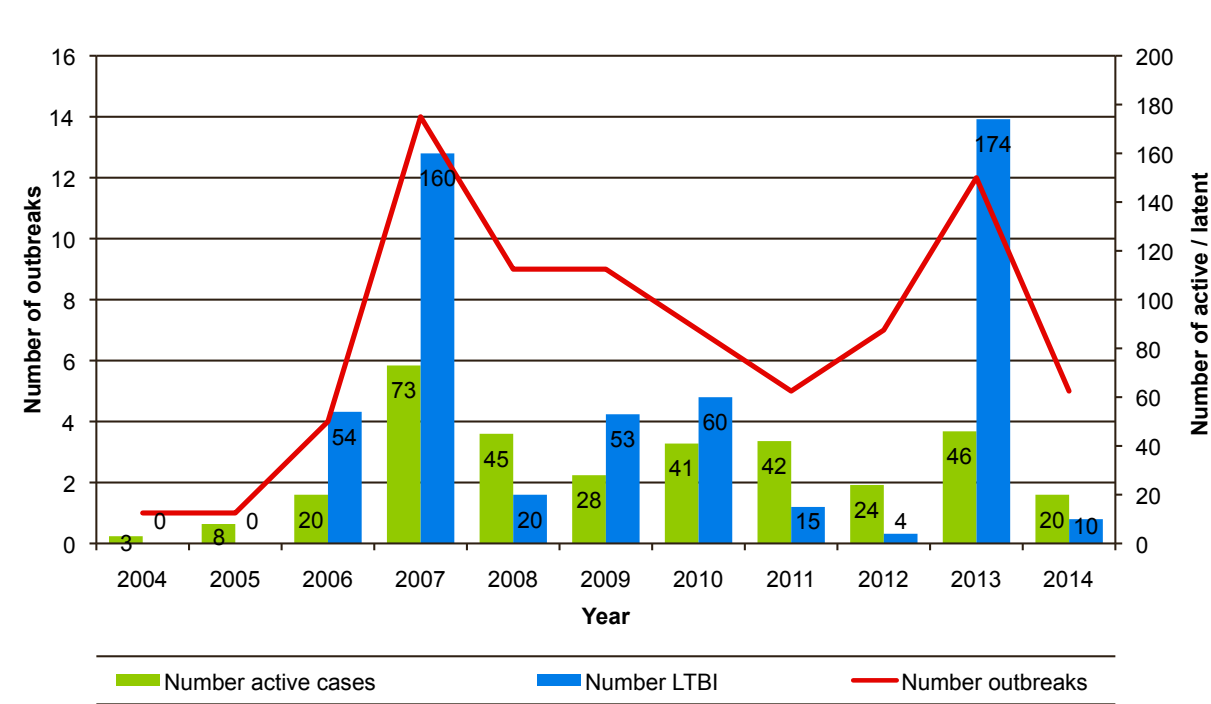


Figure 2: TB outbreak summary by year, 2004-2014