

Overview of 2013 Zoonoses Data

In 2013, a total of 24,254 tests were performed on food samples (comprising single and batch samples) for *Campylobacter*, *Salmonella*, *Listeria* and verotoxigenic *Escherichia coli* (VTEC).

Campylobacteriosis

- *Campylobacter* remained the most common bacterial cause of gastroenteritis in Ireland and in the European Union in 2013. There were 2,275 cases of human campylobacteriosis reported in Ireland in 2013, corresponding to a crude incidence rate (CIR) of 49.6 cases per 100,000 population. In Europe, there were 214,779 cases reported with a corresponding CIR of 64.8 per 100,000 population.
- A total of 1,240 food samples tested for *Campylobacter* spp. in 2013 were negative.
- Out of 4,684 animal samples tested for *Campylobacter*, 371 (7.9%) were positive. *Campylobacter jejuni* was identified from 92.2% of positive samples.

Salmonellosis

- In 2013, there were 324 reported cases of salmonellosis in Ireland (CIR 7.1 per 100,000 population) which is an increase on the previous year (CIR 6.7 per 100,000 population). The Irish figures for 2013 were below the European average CIR (42 per 100,000 population).
- Of 345 human *Salmonella* isolates referred to the National Salmonella Shigella and Listeria Reference Laboratory (NSSRL) for typing in 2013, the most common serotypes were *Salmonella* Typhimurium (including monophasic *S. Typhimurium*) (n=129, 37%) and *Salmonella* Enteritidis (n=49, 14.2%).
- A total of 10,516 food samples were tested for *Salmonella* in 2013. *Salmonella* was not detected in any of the 2,386 ready-to-eat (RTE) meat samples. Four out of 587 raw meat samples (0.7%), two out of 88 mechanically separated meat samples (0.03%) and 80 out of 2,806 (1.4%) meat samples of unspecified RTE status were positive for *Salmonella* spp.
- *Salmonella* Typhimurium (14.7%), *Salmonella* Brandenburg (10.5%), *Salmonella* Schwarzengrund (10.5%), *Salmonella* Kentucky (9.5%) and *Salmonella* Amager (9.5%) were the predominant serotypes recovered from meat and other foods in 2013.
- Of other non-meat foods analysed in 2013, 0.3% (8 out of 3,112) of foods with unspecified RTE status were positive for *Salmonella*. A further 0.02% (1 out of 1,520) of RTE foods tested positive for *Salmonella*.
- In 2013, 1.2% (5 out of 413) of breeding and commercial flocks were positive for *Salmonella*. Three of which were turkey flocks and two were from broilers before slaughter. *Salmonella* was detected in two (1.4%) of the 139 feed material samples analysed in 2013.
- Of 20,095 samples from other animal tested for *Salmonella* spp. in 2013, 2.9% were positive. Positive samples were from solipeds (6%), cattle (3.6%), goats (2.3%), sheep (1.8%), pigs (1.4%) and birds (0.09%).

- In 2013, 50%, 72%, 98% of *S. Typhimurium* poultry, bovine and porcine isolates, respectively, were resistant to at least one antimicrobial.

Cryptosporidiosis

- In 2013, 514 cases of cryptosporidiosis were notified in Ireland (CIR of 11.2 per 100,000 population) which is a decrease on the 556 cases (CIR 12.1 per 100,000 population) reported in 2012.

Verotoxigenic *Escherichia coli* (VTEC)

- In 2013, there were 702 VTEC notifications (CIR 15.3 per 100,000 population) in Ireland, which is an increase from 2012 (554 cases, CIR of 12.1 per 100,000 population). The European CIR for VTEC infections in 2013 was 1.6 per 100,000 population.
- In 2013, there were 96 VTEC outbreaks (including three foodborne outbreaks) which included 221 cases of illness. A similar number of outbreaks were reported in 2012 (97 outbreaks) which included 283 reported cases of illness.
- Of 5,328 food samples tested for VTEC in 2013, 218 were positive. Positive samples included beef, cheese and vegetables. VTEC serotypes identified included O157, O26, O15, and O113.

Listeriosis

- Eight cases of listeriosis were notified in Ireland in 2013 (CIR of 0.2 per 100,000 population). This is lower than reported in 2012 (11 cases, CIR of 0.2 per 100,000 population). Listeriosis in Ireland is similar to the 2013 European average CIR (0.4 per 100,000 population).
- Of 2,948 detection tests (presence or absence) carried out on foods for *Listeria*, 43 (1.5%) were positive for *Listeria monocytogenes*, 13 of which were RTE foods, 2 were raw and 28 foods were of unspecified RTE status.
- Of 4,222 enumeration tests (number of colony forming units/cfu per gram – cfu/g) carried on foods for *Listeria*, *L. monocytogenes* was detected in two RTE samples at >100cfu/g.
- In 2013, 113 (0.6%) out of 19,838 animal samples tested for *Listeria* were positive which included samples from goats (1.3%), cattle (0.7%), African wild dog (0.7%) and sheep (0.5%).

Tuberculosis (TB)

- In 2013, 384 cases of TB were notified in Ireland (CIR of 8.4 per 100,000 population), which is an increase on the previous year (364 cases, CIR of 8.0 per 100,000 population). *Mycobacterium tuberculosis* was identified in 264 (92%) of the 275 culture confirmed cases for 2013.
- Five cases of *Mycobacterium bovis*-associated TB were reported in 2013 (CIR of 0.1 per 100,000 population), which is an increase on the three cases reported in Ireland in 2012 (CIR of 0.07 per 100,000 population).
- In 2013, 3.9% of herds were positive for TB which is less than the 4.3% reported in 2012.
- Of 2,242 other animals tested for *Mycobacterium* in 2013, 15.4% were positive. Animals testing positive included alpacas (100%), deer (67.6%), birds (66.7%), cats (44.4%) and badgers (13.5%).

Brucellosis

- One case of brucellosis was reported in humans in 2013, compared to two reported cases in 2012.
- Tests on 41,751 bovine herds in 2013 were negative for *Brucella*. The last confirmed case of brucellosis in cattle in Ireland was in 2006.

Variant Creutzfeldt-Jakob disease (vCJD), Bovine Spongiform Encephalopathy (BSE) and Transmissible Spongiform Encephalopathy (TSE)

- No new vCJD cases were notified in 2013. The last case of vCJD was notified in 2006.
- One case of BSE in cattle was reported in 2013 compared to 3 cases reported in 2012.
- In 2013, 11 (0.05%) out of 21,004 sheep tested were positive for scrapie.

Toxoplasmosis

- There were 32 toxoplasmosis notifications in humans in 2013 (CIR of 0.7 per 100,000 population), similar to the previous year in which 36 notifications were reported (CIR of 0.8 per 100,000 population).
- *Toxoplasma gondii* was detected in 78.4% (116 out of 148) of sheep tested.

Leptospirosis

- There were 14 cases of leptospirosis notified in humans in 2013, (CIR of 0.3 per 100,000 population) which is similar to 2012 in which 15 cases were notified (CIR of 0.3 per 100,000 population).

Others

- No human cases of trichinellosis or Q fever were notified in Ireland in 2013. There was one reported case of echinococcosis (CIR of 0.02 per 100,000 population) and four reported cases of yersinosis (CIR of 0.09 per 100,000 population).
- Of 22,925 animals tested for *Yersinia*, 9 (0.04%) were positive.
- One out of 2,922,644 tests carried out for *Trichinella* in animals were positive for *Trichinella spiralis*. This positive sample was from a fox.
- *Coxiella* was detected in 5.4% (25 out of 466) of animals tested in 2013. All 25 positives were from cattle and were identified as *Coxiella burnetii*.