

Latvia	23	1.1	14	0.7	3	0.1	2	0.1	Y	C	3	3	0.1	0.2
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	2	0.1	1	0.0	1	0.0	2	0.1	Y	C	1	1	0.0	0.0
Luxembourg	1	0.2	1	0.2	0	0.0	0	0.0	Y	C	1	1	0.2	0.2
Malta	1	0.2	0	0.0	0	0.0	4	0.9	Y	C	0	0	0.0	0.0
Netherlands	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Norway	-	-	-	-	4	0.1	31	0.6	Y	C	70	70	1.4	1.3
Poland	0	0.0	1	0.0	2	0.0	1	0.0	Y	C	5	5	0.0	0.0
Portugal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Romania	8	0.0	0	0.0	0	0.0	0	0.0	Y	C	1	1	0.0	0.0
Slovakia	0	0.0	0	0.0	1	0.0	12	0.2	Y	C	1	1	0.0	0.0
Slovenia	7	0.3	10	0.5	12	0.6	11	0.5	Y	C	8	8	0.4	0.4
Spain	57	-	79	-	291	-	107	-	N	C	328	328	-	-
Sweden	392	4.2	379	4.0	238	2.5	224	2.3	Y	C	404	404	4.2	4.4
United Kingdom	4569	7.3	3571	5.7	6532	10.3	4036	6.3	Y	C	4102	4102	6.4	6.2
EU/EEA	6602	2.4	5681	2.0	9581	3.2	6894	2.3	.	C	7316	7285	2.4	2.5

Source: Country reports. Legend: Y = yes, N = no, C = case based, A = aggregated, - = no data reported, ASR: age-standardised rate, - = no notification rate calculated

The highest notification rate was observed in Ireland, but at the same time Ireland's 8.4 cryptosporidiosis cases per 100 000 population also represent a 25% decrease compared with the notification rate in the country in 2013 (Table 1, Figure 1). An increase in notifications was observed in Germany, with the notification rate nearly doubling between 2010 and 2014 (from 1.1 to 2.1). Similarly, the number of cryptosporidiosis cases reported by Spain increased nearly sixfold: in 2010, 57 cases were reported, while in 2014 Spain reported 328 cases (Table 1, Figure 2).

Figure 1. Reported confirmed cryptosporidiosis cases, EU/EEA, 2014



Source: Country reports from Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Finland, Germany, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Malta, Norway, Poland, Romania, Slovakia, Slovenia, Spain, Sweden, the United Kingdom.

All confirmed cholera cases in 2014 were in adults between 17 and 63 years of age. Nine infections were in females and five in males.

Figure 2. Reported confirmed cryptosporidiosis cases: rate per 100 000 population, EU/EEA, 2014

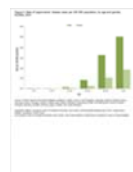


Source: Country reports from Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Finland, Germany, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Malta, Norway, Poland, Romania, Slovakia, Slovenia, Sweden, the United Kingdom.

Age and gender distribution

Age and gender data were available for 99% of all reported confirmed cryptosporidiosis cases (7240/7285). The highest notification rate for the EU/EEA was observed in the age group 0–4 years, with 11.2 confirmed cases per 100 000 males and 9.2 confirmed cases per 100 000 females (Figure 3). The highest notification rate in that age group was reported by Ireland (55.6 cases per 100 000), followed by the UK (24.8 cases per 100 000). At 0.9:1, the male-to-female ratio was almost equal to one.

Figure 3. Reported confirmed cryptosporidiosis cases: rate per 100 000 population, by age and gender, EU/EEA, 2014



Source: Country reports from Bulgaria, the Czech Republic, Estonia, Finland, Germany, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Norway, Poland, Romania, Slovakia, Slovenia, Sweden, the United Kingdom.

Seasonal distribution

As in previous years, the reported confirmed cryptosporidiosis cases followed a seasonal pattern in 2014 (Figure 4). Cases peaked in late summer and autumn. A small peak was observed in spring. Of the five countries reporting the majority of cases, all but Ireland reported a peak in late summer and autumn. Ireland reported a peak of cases in the spring but not in late summer/autumn (Figure 4).

Figure 4. Reported confirmed cryptosporidiosis cases: seasonal distribution, EU/EEA, 2014 compared with 2010–2013



Source: Country reports from Belgium, Cyprus, the Czech Republic, Estonia, Finland, Germany, Hungary, Ireland, Latvia, Lithuania, Spain, Malta, Poland, Romania, Slovakia, Slovenia, Sweden, the United Kingdom.

During the period 2010–2014, a peak in confirmed cryptosporidiosis cases was observed between July 2012 and January 2013 (Figure 5). The number of reported cases in 2014 decreased, bringing the 12-month moving average towards what was observed in 2010–2011.

Figure 5. Reported confirmed cryptosporidiosis cases: numbers and trend, EU/EEA, 2010–2014



Source: Country reports from Belgium, Cyprus, the Czech Republic, Estonia, Finland, Germany, Hungary, Ireland, Latvia, Lithuania, Spain, Malta, Poland, Romania, Slovakia, Slovenia, Sweden, the United Kingdom.

Threats description for 2014

No threats were reported to/detected by ECDC in 2014 in relation to unusual increases in cryptosporidiosis cases.

Discussion

Cryptosporidiosis remains a concern for human health and an important cause of severe gastrointestinal disease, especially in immunocompromised patients [1]. In 2013, *Cryptosporidium* spp. ranked fifth on a FAO/WHO list of globally important foodborne parasites for risk management. With only 23 of 31 EU/EEA Member States reporting cryptosporidiosis to TESSy, of which 15 reported 0–10 cases, it is likely that cryptosporidiosis is underreported in Europe. The notification rate of 2.4 cryptosporidiosis cases per 100 000 population in 2014 is about the same as what was reported for 2010, 2011 and 2013; the peak in cases in 2012 was explained by a simultaneous increase of cases in the Netherlands, the United Kingdom and Germany [2].

Importantly, the collected data do not include species and subtype information. The latter is critical in distinguishing human from non-human sources, understanding transmission chains and providing data for action in outbreak investigations.

Laboratory testing for cryptosporidiosis varies between countries, which also limits the knowledge of the epidemiology of this disease in the EU/EEA [3]. Clusters and outbreaks due to rare, virulent serotypes continue to be reported in the EU/EEA [4–6], along with genetic recombination among genotypes [7].

Public health conclusions

Although with a relatively low notification rate for the EU/EEA, cryptosporidiosis is an important enteric disease to be monitored and controlled. It is critical to better understand the epidemiology of this disease in Europe in terms of species/subtypes, underlying trends, and transmission chains. This can be achieved through increased laboratory testing, pathogen isolation and speciation, and subtyping. Such data were initially not collected in TESSy but ECDC revised cryptosporidiosis surveillance by including data on speciation, and species data can now be reported.

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Additional information

ECDC [Surveillance Atlas of Infectious Diseases](#)

Annex

Table. Cryptosporidiosis, surveillance systems overview, 2014

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* The European Surveillance System (TESSy) is a system for the collection, analysis and dissemination of data on communicable diseases. EU Member States and EEA countries contribute to the system by uploading their infectious disease surveillance data at regular intervals.

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