



Annual epidemiological report

Giardiasis

Reporting on 2014 data retrieved from TESSy* on 12 December 2015

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Key facts

- In 2014, 17 278 confirmed giardiasis cases were reported in the EU/EEA.
- The notification rate was 5.4 confirmed cases per 100 000 population.
- The highest notification rate was observed in the age group 0–4 (16.2 for males and 8.6 for females).
- The trend for 2010–2014 remained relatively stable.

Methods

[Click here for a detailed description of the methods used to produce this annual report](#)

- In 2014, 23 countries reported giardiasis cases in the EU/EEA in 2014. None of these reported zero cases.
- The EU case definitions of 2012/2008 were used by 19 of the 23 countries (Annex).
- Two of the reporting countries had active surveillance of giardiasis (Annex).
- Notification rates and age-standardised rates were not calculated for Belgium, Spain and Romania because the respective national surveillance systems are sentinel systems and do not cover the whole population.
- Although Poland provided aggregated seasonality data for the 2014 cases, data were missing for 2010–2013. Poland could therefore not be included in the seasonal trend analysis.

Epidemiology

In 2014, 17 278 confirmed giardiasis cases were reported by 23 countries in the EU/EEA (Table 1). The highest number of cases was reported by Germany (N=4 011), followed by the United Kingdom (N=3 628) which accounted for 44% of cases (Figure 1). In 2014, slight increases compared with 2013 were reported by several countries, while case-numbers doubled in Romania and Latvia.

Table 1. Reported confirmed giardiasis cases: number and rate per 100 000 population, EU/EEA, 2010–2014

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Country	2010		2011		2012		2013		2014			
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Reported cases	Confirmed cases	Rate	ASR
Austria	.	.	.	.	.	.	.	.	.	.	.	.
Belgium	1212	-	1383	-	1244	-	1220	-	1144	1144	-	-
Bulgaria	2234	30.1	1959	26.6	1560	21.3	1873	25.7	1731	1731	23.9	27.2
Croatia	.	.	.	.	0	0.0	0	0.0	80	80	1.9	2.0
Cyprus	12	1.5	2	0.2	4	0.5	3	0.3	3	3	0.3	0.4
Czech Republic	51	0.5	45	0.4	49	0.5	46	0.4	42	42	0.4	0.4
Denmark	.	.	.	.	.	.	.	.	.	.	.	.
Estonia	257	19.3	245	18.4	254	19.2	195	14.8	221	221	16.8	17.1
Finland	373	7.0	404	7.5	394	7.3	336	6.2	287	287	5.3	5.5
France	.	.	.	.	.	.	.	.	.	.	.	.
Germany	3980	4.9	4235	5.2	4216	5.2	4107	5.0	4019	4011	5.0	5.1
Greece	.	.	.	.	.	.	.	.	.	.	.	.
Hungary	87	0.9	85	0.9	81	0.8	59	0.6	59	59	0.6	0.6
Iceland	24	7.6	34	10.7	22	6.9	20	6.2	22	22	6.8	6.3
Ireland	57	1.3	56	1.2	54	1.2	44	1.0	71	71	1.5	1.5
Italy	.	.	.	.	.	.	.	.	.	.	.	.
Latvia	21	1.0	15	0.7	17	0.8	37	1.8	73	73	3.6	3.8
Liechtenstein	.	.	.	.	.	.	.	.	.	.	.	.
Lithuania	18	0.6	8	0.3	13	0.4	13	0.4	13	13	0.4	0.4
Luxembourg	0	0.0	0	0.0	2	0.4	1	0.2	3	3	0.5	0.5
Malta	5	1.2	10	2.4	1	0.2	0	0.0	2	2	0.5	0.4
Netherlands	.	.	.	.	.	.	.	.	.	.	.	.
Norway	262	5.4	234	4.8	179	3.6	227	4.5	264	264	5.2	5.0

Poland	2271	6.0	1670	4.4	1622	4.3	1830	4.8	1872	1871	4.9	-
Portugal	.	.	.	.	.	.	.	.	.	.	.	.
Romania	106	-	315	-	260	-	328	-	796	796	-	-
Slovakia	169	3.1	162	3.0	243	4.5	180	3.3	166	166	3.1	3.1
Slovenia	19	0.9	31	1.5	35	1.7	42	2.0	38	38	1.8	1.9
Spain	578	-	530	-	859	-	885	-	1493	1493	-	-
Sweden	1311	14.0	1045	11.1	1081	11.4	1253	13.1	1260	1260	13.1	13.0
United Kingdom	4024	6.4	3938	6.2	4137	6.5	3840	6.0	3628	3628	5.6	5.7
EU/EEA	17071	6.1	16406	5.6	16327	5.5	16539	5.5	17287	17278	5.4	-

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

Figure 1. Reported confirmed giardiasis cases: number of 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.

Notification rate

The notification rate reported for confirmed giardiasis in the EU/EAA in 2014 was 5.4 cases per 100 000 population (Figure 2). The highest notification rates were reported by Bulgaria (23.9), Estonia (16.8) and Sweden (13.1).

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



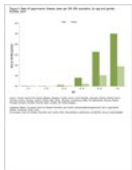
Source: Country reports from Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Finland, Germany, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Malta, Norway, Poland, Slovakia, Slovenia, Sweden, the United Kingdom.

Age and gender distribution

For cases with available gender data (84% of confirmed cases), the notification rate in males was 6.1 per 100 000 population and in females 4.6 per 100 000. The highest notification rate was observed in the age group 0–4 years, with 16.2 cases per 100 000 for males and 8.6 cases per 100 000 for females (Figure 3).

In the age group 0–4 years, the highest notification rates were reported by Bulgaria (195.3), Estonia (120.8) and Sweden (42.3).

Figure 3. Reported confirmed giardiasis cases: age and gender, EU/EEA, 2014

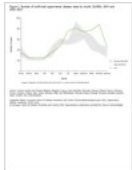


Source: Country reports from Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Finland, Germany, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Malta, Norway, Slovakia, Slovenia, Spain, Sweden, the United Kingdom.

Seasonal distribution

Data on seasonality were reported by 18 of the 23 countries (Figure 4). Similarly to previous years, the cases peaked in September and October.

Figure 4. Reported confirmed giardiasis cases by month, EU/EEA, 2014 compared with 2009–2013



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

Multiannual trend

The number of reported giardiasis cases remained relatively stable during the period between 2010 and 2014 (Table 1, Figure 5). Thus, 12-month averages do not show any significant trend (Figure 5).

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



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

Threats description for 2014

No public health threats related to giardiasis were reported to, or detected by, ECDC in 2014.

Discussion

Giardiasis is a common parasitic infection worldwide, caused by the protozoan *Giardia lamblia* (syn. *G. duodenalis*, *G. intestinalis*) [1]. The disease may be asymptomatic and self-limiting or characterised by fatigue, bloating, acute diarrhoea and other chronic gastrointestinal symptoms [2]. Infection occurs frequently via ingestion of contaminated food or water (recreational waters, swimming pools or drinking water) but person-to-person transmission may also occur, e.g. through sexual transmission [3-5].

The giardiasis multiannual trend in the EU/EEA is stable, but notification rates remain high, especially in eastern and southern Europe. Considering the likely degree of underreporting and under-ascertainment, this is of public health concern because of drug resistance [6] and potentially increasingly favourable climatic conditions due to climate change [7].

Public health conclusions

Giardiasis remains a common parasitic disease in the EU/EEA. There is a need to better understand the epidemiology of this disease, increase awareness among clinicians and implement prevention programmes tailored to the national epidemiological situation. In addition, diagnostic algorithms and methods and their use in Europe should be reviewed and assessed because of recent advances in giardiasis diagnostics. The respective case definitions for data reporting should be updated accordingly to allow for better collection of data, which could then inform public health decisions.

References

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Additional information

[ECDC Surveillance Atlas of Infectious Diseases](#)

Annex

Table. Giardiasis, surveillance systems overview, 2014

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The image shows a small screenshot of an Excel spreadsheet. The spreadsheet has a grid with columns and rows. The top row appears to have headers, and the subsequent rows contain data. The text is too small to read, but it represents the 'Table. Giardiasis, surveillance systems overview, 2014' mentioned in the text above.

* 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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