

Shigellosis

Annual Epidemiological Report for 2018

Key facts

- Shigellosis is a relatively uncommon disease in the EU/EEA, but remains of concern in some countries and for some population groups.
- For 2018, 30 EU/EEA countries reported 7 643 confirmed shigellosis cases.
- The overall notification rate was 2.0 cases per 100 000 population, which represents an increase on 2017.
- The highest notification rate was observed in children under five years of age, followed by male adults aged 25–44 years. Sexual transmission of shigellosis among men who have sex with men (MSM) is thought to have contributed to the gender imbalance in the latter group.

Methods

This report is based on data for 2019 retrieved from The European Surveillance System (TESSy) on 12 August 2019. TESSy is a system for the collection, analysis and dissemination of data on communicable diseases.

For a detailed description of methods used to produce this report, please refer to the *Methods* chapter [1].

An overview of the national surveillance systems is available online [2].

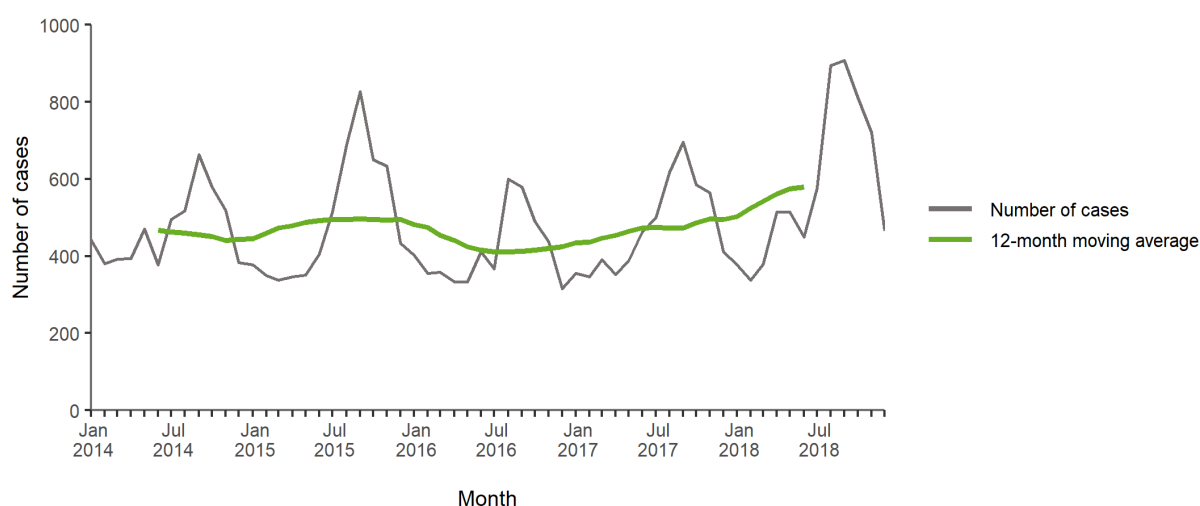
A subset of the data used for this report is available through ECDC's online *Surveillance atlas of infectious diseases* [3].

Epidemiology

For the purpose of this report, only tables and figures are presented. Please refer to the 2019 and more recent annual epidemiological reports for the most up-to-date information relating to shigellosis.

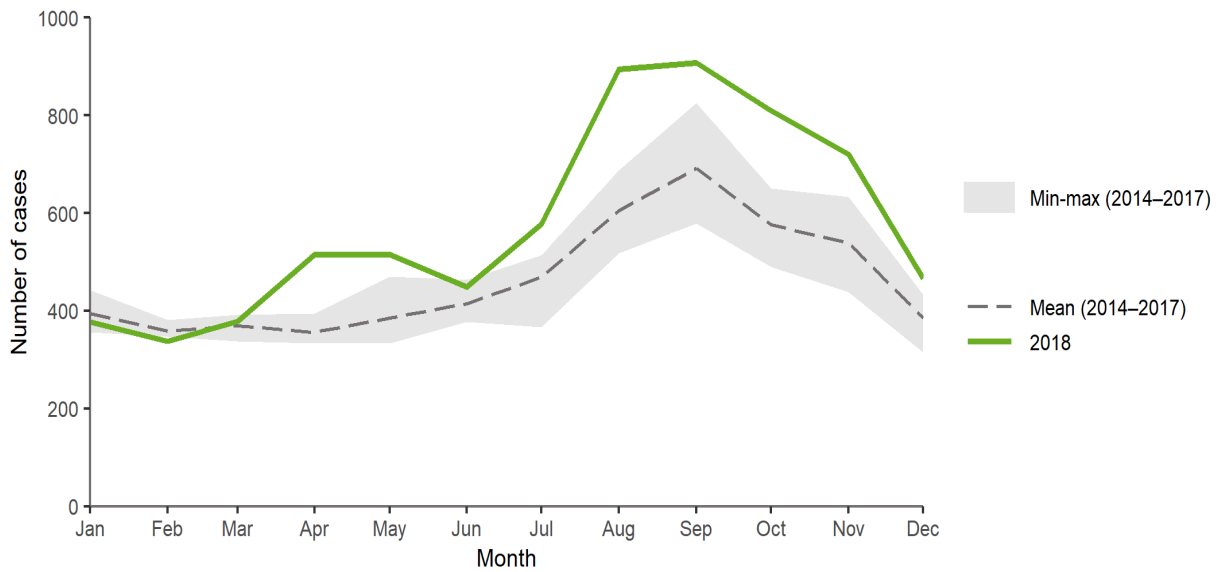
Table 1. Distribution of confirmed shigellosis cases and rates per 100 000 population by country, EU/EEA, 2014–2018

Country	2014		2015		2016		2017		2018			
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Confirmed cases	Rate	ASR	Reported cases
Austria	75	0.9	96	1.1	62	0.7	54	0.6	69	0.8	0.8	69
Belgium	403	-	391	3.5	353	3.1	353	3.1	427	3.7	3.7	427
Bulgaria	512	7.1	410	5.7	291	4.1	308	4.3	235	3.3	3.6	235
Croatia	0	0.0	12	0.3	6	0.1	1	0.0	29	0.7	0.8	66
Cyprus	0	0.0	0	0.0	1	0.1	1	0.1	4	0.5	0.5	4
Czech Republic	92	0.9	88	0.8	68	0.6	166	1.6	142	1.3	1.4	145
Denmark	110	2.0	170	3.0	212	3.7	137	2.4	146	2.5	2.6	146
Estonia	10	0.8	12	0.9	17	1.3	16	1.2	17	1.3	1.4	17
Finland	89	1.6	86	1.6	59	1.1	85	1.5	111	2.0	2.1	139
France	873	3.0	822	2.8	828	2.8	997	3.4	1132	3.8	4.0	1132
Germany	509	0.6	555	0.7	419	0.5	438	0.5	652	0.8	0.8	675
Greece	90	0.8	78	0.7	72	0.7	81	0.8	78	0.7	-	78
Hungary	7	0.1	65	0.7	23	0.2	18	0.2	13	0.1	0.1	13
Iceland	2	0.6	1	0.3	0	0.0	6	1.8	4	1.1	1.2	4
Ireland	53	1.1	88	1.9	84	1.8	97	2.0	101	2.1	2.1	111
Italy	24	-	26	-	20	-	17	-	32	-	-	32
Latvia	8	0.4	12	0.6	3	0.2	3	0.2	17	0.9	0.9	23
Liechtenstein	.	.	.	.	.	.	.	.	.	.	.	.
Lithuania	21	0.7	24	0.8	13	0.5	9	0.3	21	0.7	0.8	21
Luxembourg	12	2.2	3	0.5	1	0.2	9	1.5	11	1.8	1.9	11
Malta	0	0.0	1	0.2	2	0.4	2	0.4	4	0.8	0.8	13
Netherlands	335	2.0	444	2.6	428	2.5	410	2.4	484	2.8	2.9	507
Norway	93	1.8	85	1.6	83	1.6	115	2.2	102	1.9	1.9	102
Poland	41	0.1	18	0.0	15	0.0	31	0.1	89	0.2	0.2	284
Portugal	5	0.0	33	0.3	13	0.1	12	0.1	24	0.2	0.3	26
Romania	147	0.7	168	0.8	129	0.7	122	0.6	147	0.8	0.8	147
Slovakia	222	4.1	191	3.5	145	2.7	257	4.7	195	3.6	3.7	206
Slovenia	18	0.9	34	1.6	17	0.8	16	0.8	26	1.3	1.4	26
Spain	230	0.5	293	0.6	180	0.4	325	0.7	455	1.0	1.0	473
Sweden	324	3.4	311	3.2	232	2.4	213	2.1	259	2.6	2.6	369
UK	2 226	3.5	2 208	3.4	1 856	2.8	2 040	3.1	2 617	3.9	4.1	2 617
EU/EEA	6 531	1.6	6 725	1.7	5 632	1.5	6 339	1.7	7 643	2.0	2.0	8 118

Figure 1. Distribution of confirmed shigellosis cases by month, EU/EEA, 2014–2018

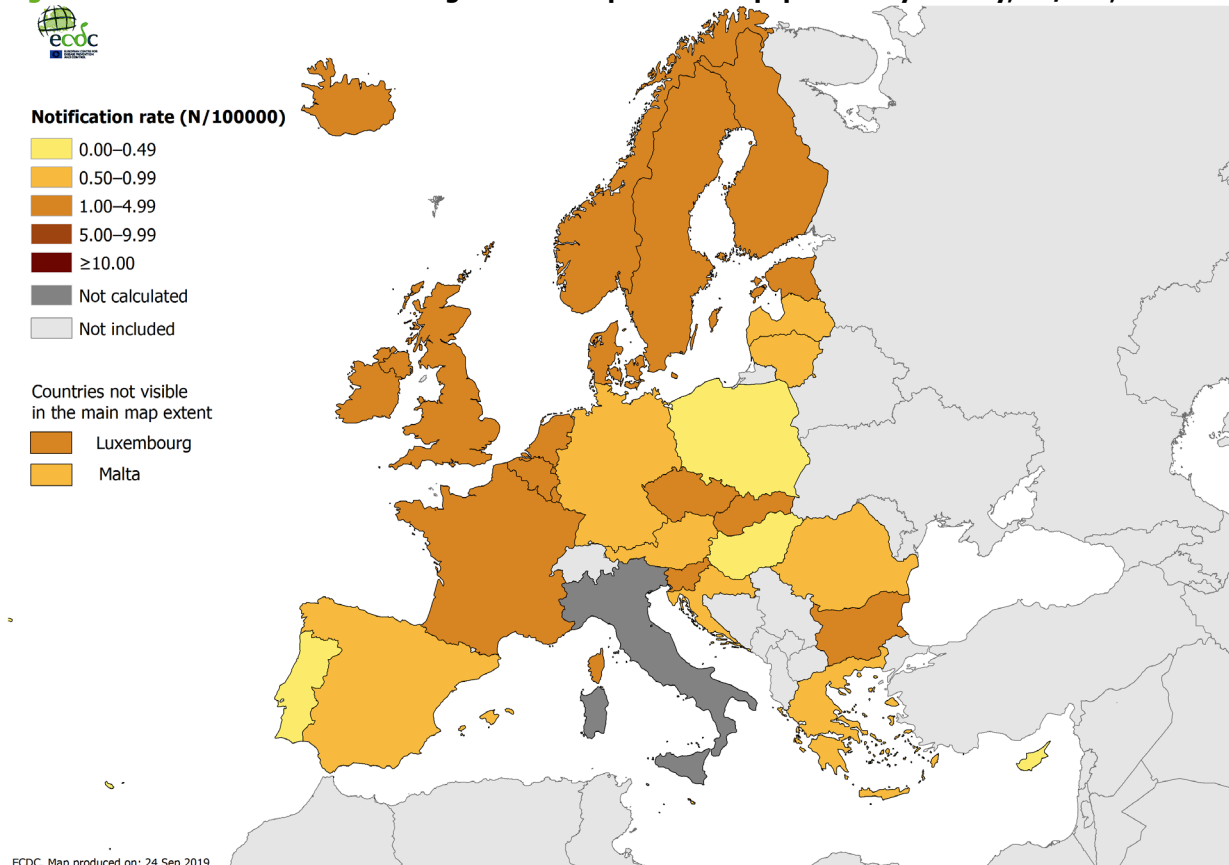
Source: Country reports from Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK.

Figure 2. Distribution of confirmed shigellosis cases by month, EU/EEA, 2018 and 2014–2017



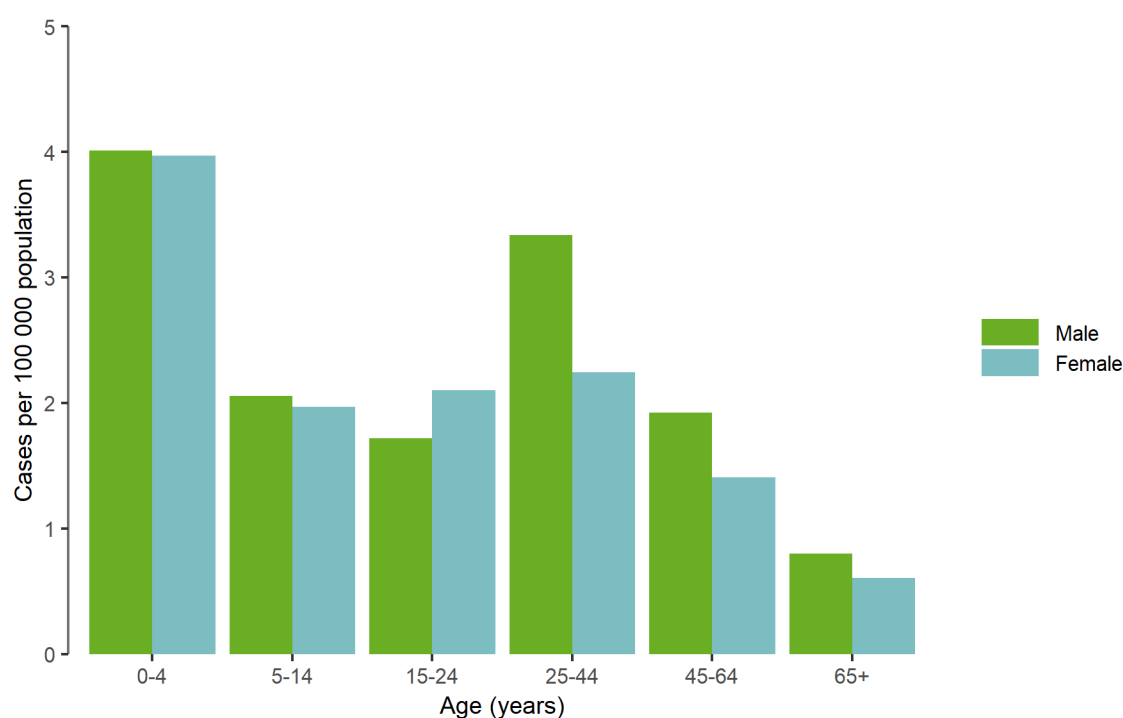
Source: Country reports from Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK.

Figure 3. Distribution of confirmed shigellosis cases per 100 000 population by country, EU/EEA, 2018



Source: Country reports from Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK.

Figure 4. Distribution of confirmed shigellosis cases per 100 000 population, by age and sex, EU/EEA, 2018



Outbreaks and other threats

An outbreak of shigellosis was reported in connection with a Rainbow gathering¹ in south-east Poland in July–August 2018 [4].

Public health implications

Humans are the only primary reservoir for *Shigella* species, with transmission occurring either through person-to-person contact or ingestion of contaminated food and water [5]. Over the past few decades, sexually-transmitted *Shigella* has also been reported [5]. Within high-income settings, travellers and MSM are identified as the main risk groups for shigellosis [5,6]. In general, prevention of infection and control of outbreaks relies on good personal and environmental hygiene practices to prevent faecal-oral transmission, particularly during sexual activities. Travellers to endemic areas benefit from adhering to common advice on how to avoid food and water-borne infections when travelling. Targeted information campaigns to increase awareness of shigellosis could help reduce the spread of infection among risk groups.

The main treatment for shigella infection is rehydration therapy, although in the event of dysentery, antibiotics can be used to shorten the duration of symptoms and pathogen shedding [5]. However, prescribing clinicians should be aware of increasing resistance among commonly prescribed therapy regimens, especially among high-risk groups.

¹ Rainbow events are temporary gatherings of people who come together in natural surroundings or remote forests.

References

1. European Centre for Disease Prevention and Control (ECDC). Introduction to the Annual Epidemiological Report. 2020. Available at: <https://www.ecdc.europa.eu/en/surveillance-and-disease-data/annual-epidemiological-reports/introduction-annual>
2. European Centre for Disease Prevention and Control (ECDC). Surveillance systems overview for 2018. Available at: <https://www.ecdc.europa.eu/en/publications-data/surveillance-systems-overview-2018>
3. European Centre for Disease Prevention Control (ECDC). Surveillance atlas of infectious diseases - Shigellosis data. ECDC. Available at: <https://atlas.ecdc.europa.eu/public/index.aspx?Dataset=27&HealthTopic=48>
4. European Centre for Disease Prevention Control (ECDC). Shigellosis outbreak linked to European Rainbow Gathering in Poland. News item - 15 August 2018. Available at: <https://www.ecdc.europa.eu/en/news-events/shigellosis-outbreak-linked-european-rainbow-gathering-poland>
5. Kotloff KL, Riddle MS, Platts-Mills JA, Pavlinac P, Zaidi AKM. Shigellosis. Lancet. 2018 Feb 24;391(10122):801-12. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/29254859>
6. Moreno-Mingorance A, Espinal P, Rodriguez V, Goterris L, Fabrega A, Serra-Pladevall J, et al. Circulation of multi-drug-resistant *Shigella sonnei* and *Shigella flexneri* among men who have sex with men in Barcelona, Spain, 2015-2019. Int J Antimicrob Agents. 2021 Sep;58(3):106378. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/34157402>