

Typhoid and paratyphoid fever

Annual Epidemiological Report for 2018

Key facts

- Typhoid and paratyphoid fevers are relatively rare in the EU/EEA, and are mainly acquired during travel to countries outside the EU/EEA, particularly South Asia.
- In 2018, 30 EU/EEA countries reported a total of 1 118 cases of typhoid and paratyphoid fever.
- The EU/EEA notification rate was 0.29 confirmed cases of typhoid and paratyphoid fever per 100 000 population. The highest notification rates were reported in France, the United Kingdom (UK) and Norway.
- Of the 833 cases with available information, 90.8% were travel related.
- Cases in the EU/EEA showed clear seasonal trends, with a pronounced peak in September and a smaller peak in late spring.

Methods

This report is based on data for 2018 retrieved from The European Surveillance System (TESSy) on 17 September 2019. TESSy is a system for the collection, analysis and dissemination of data on communicable diseases.

For a detailed description of the methods used to produce this report, please refer to the 'Methods' chapter in the 'Introduction to the Annual Epidemiological Report' [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 have been presented. Please refer to the more recent annual epidemiological reports (such as 2019) for the most up-to-date information regarding typhoid and paratyphoid fever.

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

Country	2014		2015		2016		2017		2018		
	Confirmed cases	Rate	Confirmed cases	Rate	Confirmed cases	Rate	Confirmed cases	Rate	Confirmed cases	Rate	Reported cases
Austria	9	0.11	7	0.08	17	0.20	15	0.17	13	0.15	13
Belgium	35	0.00	33	0.29	42	0.37	49	0.43	53	0.46	53
Bulgaria	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Croatia	0	0.00	0	0.00	0	0.00	1	0.02	4	0.10	4
Cyprus	0	0.00	0	0.00	0	0.00	0	0.00	1	0.12	1
Czechia	6	0.06	0	0.00	0	0.00	0	0.00	0	0.00	0
Denmark	27	0.48	18	0.32	24	0.42	23	0.40	24	0.42	24
Estonia	1	0.08	2	0.15	0	0.00	2	0.15	2	0.15	2
Finland	10	0.18	7	0.13	5	0.09	15	0.27	14	0.25	14
France	206	0.65	170	0.53	222	0.69	198	0.62	208	0.65	208
Germany	84	0.10	102	0.13	95	0.12	120	0.15	87	0.11	87
Greece	9	0.08	17	0.16	9	0.08	8	0.07	7	0.07	7
Hungary	0	0.00	0	0.00	3	0.03	1	0.01	0	0.00	0
Iceland	0	0.00	0	0.00	2	0.60	0	0.00	0	0.00	0
Ireland	12	0.26	10	0.21	17	0.36	22	0.46	15	0.31	15
Italy	120	0.20	98	0.16	123	0.20	148	0.24	120	0.20	120
Latvia	0	0.00	0	0.00	0	0.00	0	0.00	1	0.05	1
Liechtenstein	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lithuania	1	0.03	2	0.07	3	0.10	1	0.04	3	0.11	3
Luxembourg	2	0.36	1	0.18	1	0.17	1	0.17	1	0.17	1
Malta	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
Netherlands	37	0.22	45	0.27	56	0.33	62	0.36	66	0.38	66
Norway	14	0.27	14	0.27	25	0.48	20	0.38	31	0.59	31
Poland	0	0.00	0	0.00	0	0.00	8	0.02	8	0.02	8
Portugal	19	0.18	8	0.08	9	0.09	9	0.09	16	0.16	16
Romania	0	0.00	4	0.02	1	0.01	0	0.00	1	0.01	1
Slovakia	0	0.00	0	0.00	1	0.02	2	0.04	0	0.00	0
Slovenia	4	0.19	2	0.10	3	0.15	0	0.00	2	0.10	2
Spain	39	0.00	34	0.00	31	0.00	30	0.00	35	0.00	35
Sweden	36	0.37	27	0.28	16	0.16	37	0.37	32	0.32	32
United Kingdom ¹	352	0.55	406	0.63	456	0.70	326	0.50	374	0.56	374
EU/EEA	1 023	0.26	1 007	0.25	1 161	0.30	1 098	0.28	1 118	0.29	1 118

Source: country reports

ND: no data reported.

¹ The United Kingdom (UK) is a former Member State of the European Union (EU). The UK withdrew from the EU on 31 January 2020.

Figure 1. Distribution of confirmed typhoid and paratyphoid fever cases per 100 000 population by country, EU/EEA, 2018

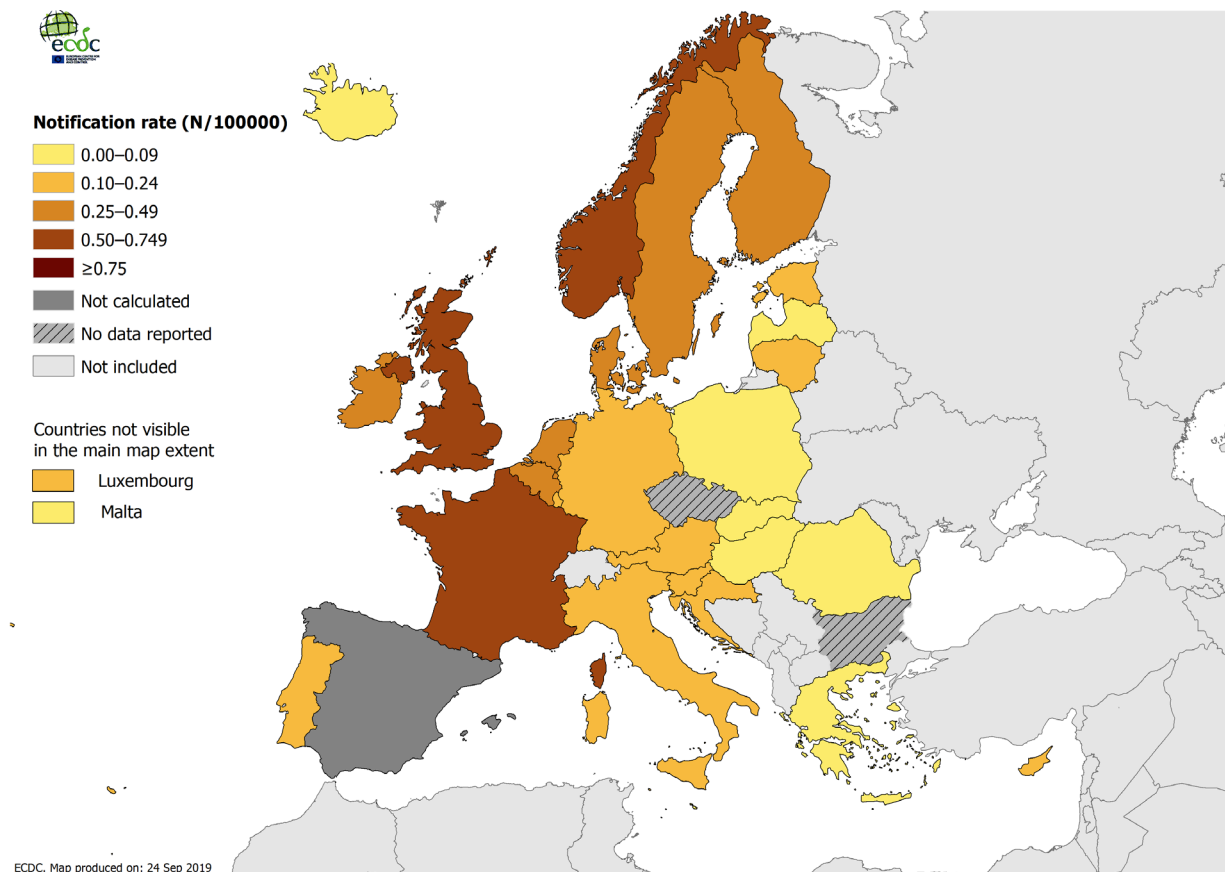
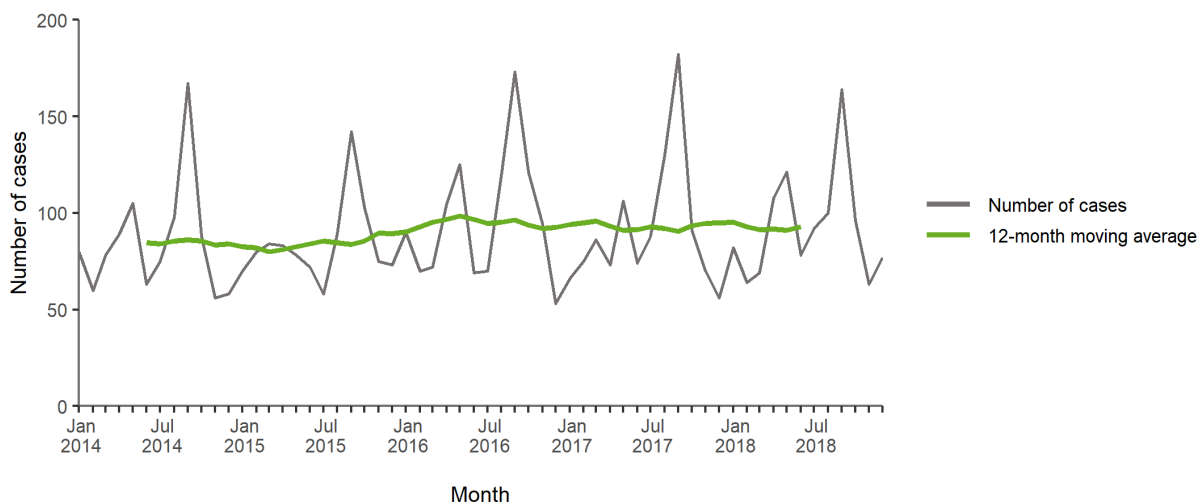
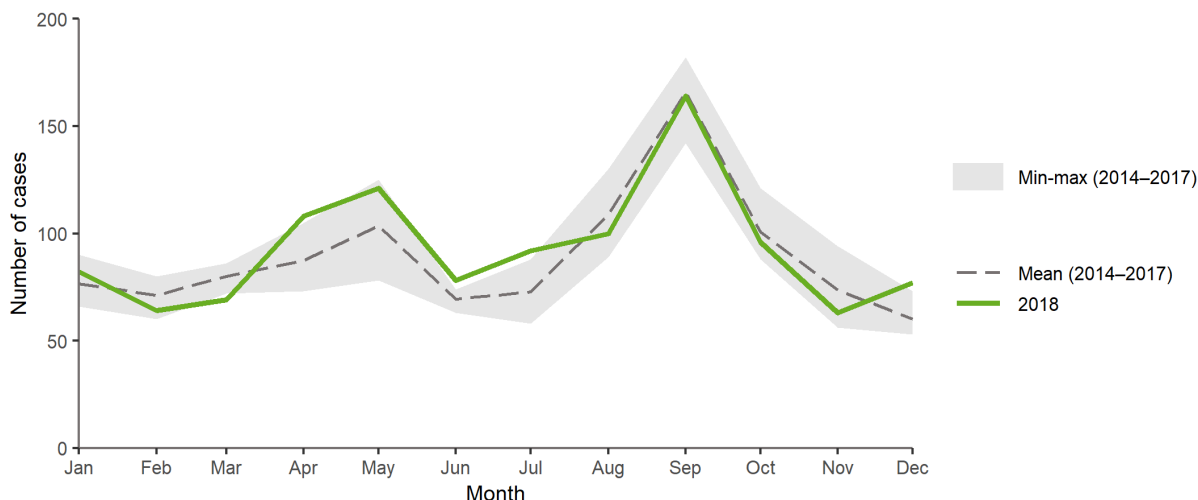


Figure 2. Distribution of confirmed typhoid and paratyphoid fever cases by month, EU/EEA, 2014–2018



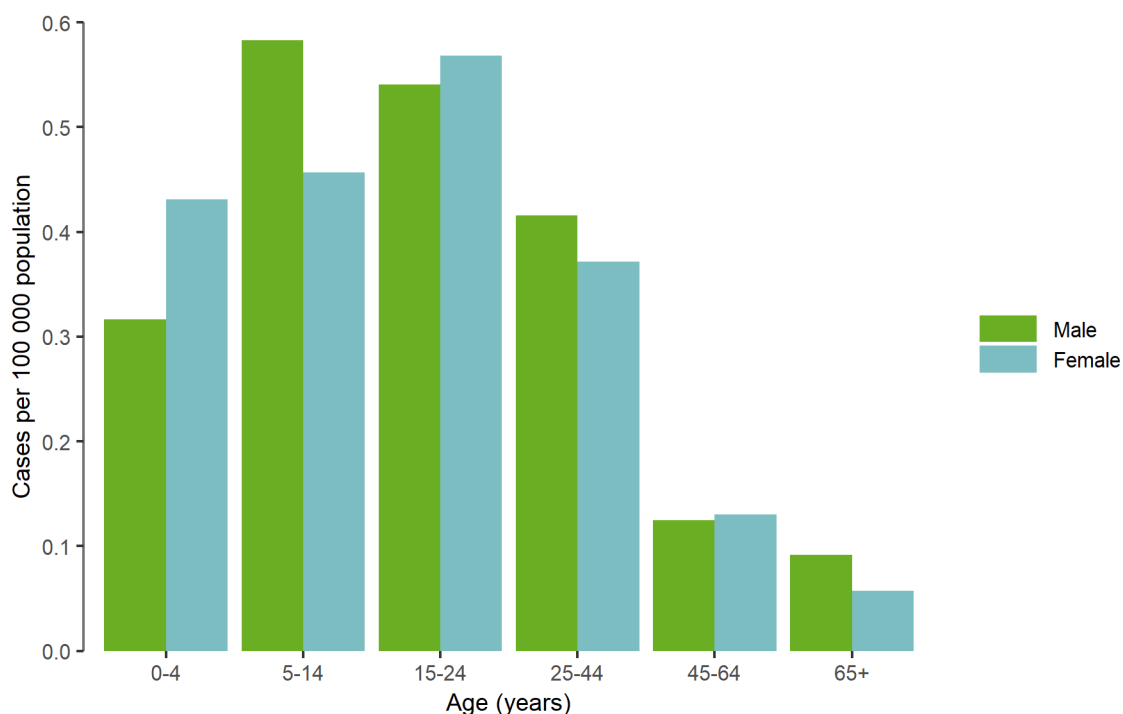
Source: Country reports from Austria, Belgium, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

Figure 3. Distribution of confirmed typhoid and paratyphoid fever cases by month, EU/EEA, 2018 and 2014–2017



Source: Country reports from Austria, Belgium, Cyprus, Czechia, 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 United Kingdom.

Figure 4. Distribution of confirmed typhoid and paratyphoid fever cases per 100 000 population, by age and gender, EU/EEA, 2018



Source: Country reports from Austria, Belgium, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Spain, Sweden, and the United Kingdom.

Public health implications

Typhoid and paratyphoid fevers are mainly travel-associated infections in the EU/EEA. Persons planning to stay in high-endemicity countries for prolonged periods should consider vaccination in line with national recommendations before travel.

References

1. European Centre for Disease Prevention and Control (ECDC). Introduction to the Annual Epidemiological Report. Stockholm: ECDC; 2020. Available at: [Introduction to the Annual Epidemiological Report \(europa.eu\)](#).
2. European Centre for Disease Prevention and Control (ECDC). Surveillance systems overview for 2018. Stockholm: ECDC; 2018. Available at: <https://www.ecdc.europa.eu/sites/default/files/documents/surveillance-systems-overview-2018.xlsx>
3. European Centre for Disease Prevention and Control (ECDC). Surveillance Atlas of Infectious Diseases. Stockholm: ECDC; 2023. Available at: <http://atlas.ecdc.europa.eu/public/index.aspx?Dataset=27&HealthTopic=46>