

SURVEILLANCE REPORT

Monthly measles and rubella monitoring report

April 2019

Period covered: 1 March 2018–28 February 2019

Introduction

This monitoring report is based on measles and rubella data from The European Surveillance System (TESSy) for 1 March 2018–28 February 2019.

Routine disease data are submitted on a monthly basis by 30 European Union/European Economic Area (EU/EEA) countries for measles and 28 EU/EEA countries for rubella (France and Belgium do not submit data). TESSy data on measles and rubella are published each month in the ECDC Surveillance Atlas of Infectious Diseases [1].

ECDC also monitors European measles and rubella outbreaks through epidemic intelligence and publishes recent updates in the Communicable Disease Threats Report (CDTR) [2] on the same day as this monitoring report. Additionally, ECDC conducts assessments as significant outbreaks or public health events develop. The last ECDC rapid risk assessment on the risk of measles transmission in the EU/EEA was published in March 2018 [3].

Measles

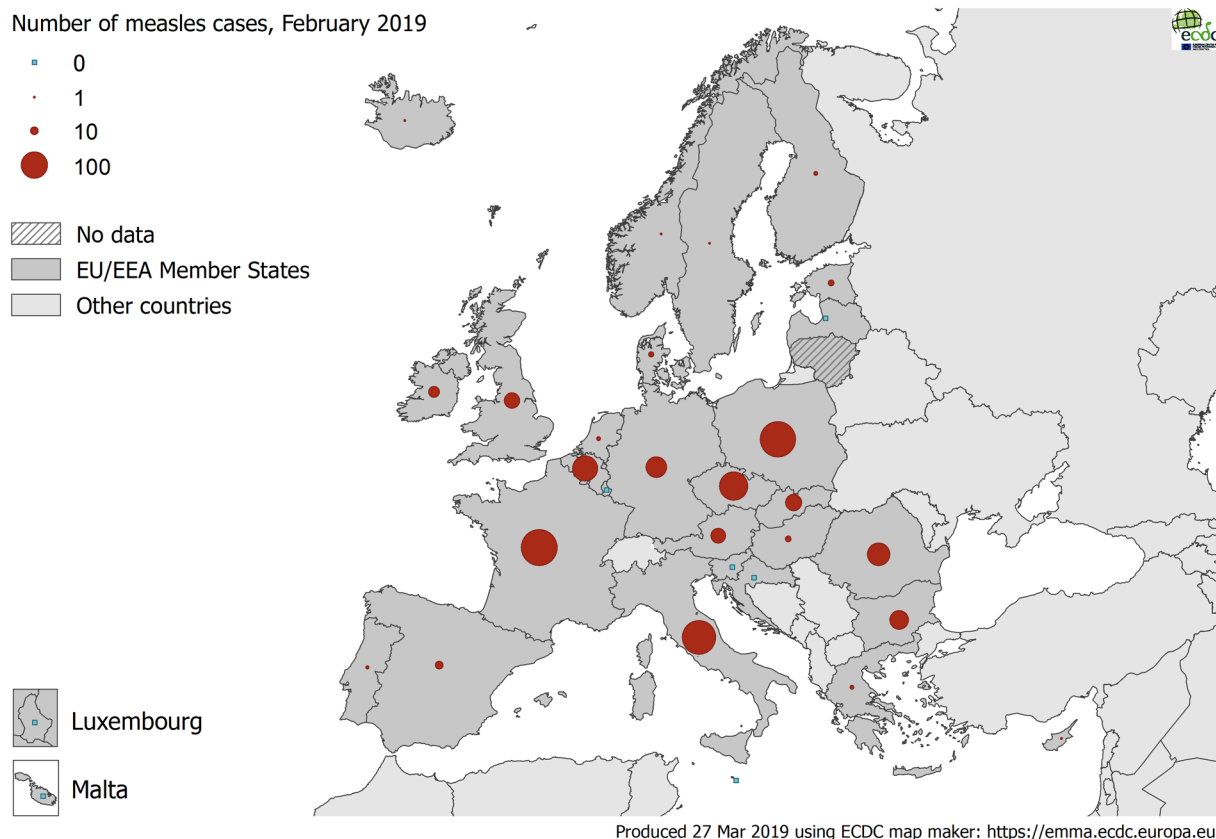
Measles in February 2019

Twenty-nine countries reported measles data for February 2019, with 1 082 cases reported by 24 countries and five countries reporting no cases. Lithuania did not report measles data for February 2019 (Figure 1).

Overall, case numbers continued to increase compared with the previous two months. France, Poland, Italy, the Czech Republic and Belgium had the highest case counts, with 188, 178, 160, 115 and 90 cases respectively (Table 1).

- Notable increases were reported in France, Poland, the Czech Republic, Belgium, Bulgaria and Ireland.
- France reported 188 cases in February, compared with 125 in January and 54 in December.
- Poland reported 178 cases in February, compared with 123 in January and 114 in December.
- The Czech Republic reported 115 cases in February, compared with 47 in January and 19 in December.
- Belgium reported 90 cases in February, compared with 20 in January and seven in December.
- Bulgaria reported 51 cases in February, compared with zero in January and zero in December.
- Ireland reported 18 cases in February, compared with two in January and zero in December.

Where available, links to recent updates published by national public health authorities in the EU/EEA can be found in the CDTR [2].

Figure 1. Number of measles cases by country, EU/EEA, February 2019 (n=1 082)

Measles from March 2018–February 2019

From 1 March 2018–28 February 2019, 30 EU/EEA Member States reported 11 967 cases of measles, 8 476 (71%) of which were laboratory-confirmed. No countries reported zero cases. The highest number of cases were reported by Italy (2 498), France (2 474), Greece (1 412), Romania (1 307), the United Kingdom (923), Germany (651) and Slovakia (644), accounting for 21%, 21%, 12%, 11%, 8%, 5% and 5% of all cases respectively (Table 1). Notification rates per million population above the EU/EEA average (23.1) were reported by Greece (131.1), Slovakia (118.5), Romania (66.5), Italy (41.2), France (36.9) and the Czech Republic (31.8; Figure 2).

The number of measles cases reported to TESSy may be an underestimation in certain cases. This may apply to Romania in particular. The sustained outbreak in the country has caused delays in case-based reporting to TESSy and the most up-to-date data are available from the Romanian National Institute of Public Health [4].

Table 1. Number of measles cases by month and notification rate per million population by country, EU/EEA, 1 March 2018–28 February 2019

Country	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2019	2019	Total cases	Cases per million	Total lab-positive cases
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb			
Austria	15	17	12	6	1	3	6	0	4	1	25	33	123	14.0	115
Belgium	9	11	24	22	3	11	14	4	8	7	20	90	223	19.6	175
Bulgaria	2	1	1	1	7	0	0	0	0	0	0	51	63	8.9	48
Croatia	0	1	2	16	3	1	0	0	0	0	0	0	23	5.5	23
Cyprus	4	0	0	0	0	0	0	0	0	0	0	1	5	5.8	5
Czech Republic	32	40	33	12	4	7	4	7	16	19	47	115	336	31.8	283
Denmark	3	0	0	0	0	2	2	0	0	1	2	4	14	2.4	14
Estonia	2	7	1	0	0	0	0	0	0	0	3	6	19	14.4	19
Finland	0	0	4	0	0	3	0	0	1	7	3	3	21	3.8	21
France	761	619	251	191	81	29	38	76	61	54	125	188	2474	36.9	1 214
Germany	49	99	105	94	54	29	24	13	10	10	102	62	651	7.9	526
Greece	549	352	290	155	38	18	4	2	0	1	0	3	1412	131.1	775
Hungary	6	0	0	0	0	0	0	0	0	1	2	5	14	1.4	14
Iceland	0	0	0	0	0	0	0	0	0	0	0	1	1	3.0	1
Ireland	15	12	0	2	5	17	2	1	1	0	2	18	75	15.7	64
Italy	391	498	461	317	147	79	57	82	58	76	172	160	2 498	41.2	1 951
Latvia	1	0	2	3	1	1	0	0	1	2	0	0	11	5.6	11
Lithuania	0	0	0	0	1	1	0	0	8	20	12	.	42	14.8	42
Luxembourg	0	1	0	0	0	2	0	0	1	0	0	0	4	6.8	4
Malta	0	0	0	0	5	0	0	0	0	0	0	0	5	10.9	5
Netherlands	2	0	3	10	1	4	0	0	0	2	4	3	29	1.7	28
Norway	2	1	2	0	0	3	0	0	0	0	0	1	9	1.7	7
Poland	3	22	19	12	13	19	9	21	79	114	123	178	612	16.1	351
Portugal	106	13	0	3	1	3	3	2	24	12	2	2	171	16.6	159
Romania	105	111	104	111	100	92	72	65	81	130	261	75	1 307	66.5	982
Slovakia	0	3	18	67	257	87	28	16	38	50	43	37	644	118.5	465
Slovenia	0	0	3	3	0	0	0	1	0	0	0	0	7	3.4	7
Spain	52	50	41	25	15	7	4	4	1	6	11	10	226	4.9	221
Sweden	2	2	4	3	3	2	4	1	0	3	0	1	25	2.5	23
United Kingdom	150	202	155	100	82	54	16	21	26	11	71	35	923	14.0	923
EU/EEA	2 261	2 062	1 535	1 153	822	474	287	316	418	527	1 030	1 082	11 967	23.1	8 476

Source: TESSy, data extracted on 27 March 2019.

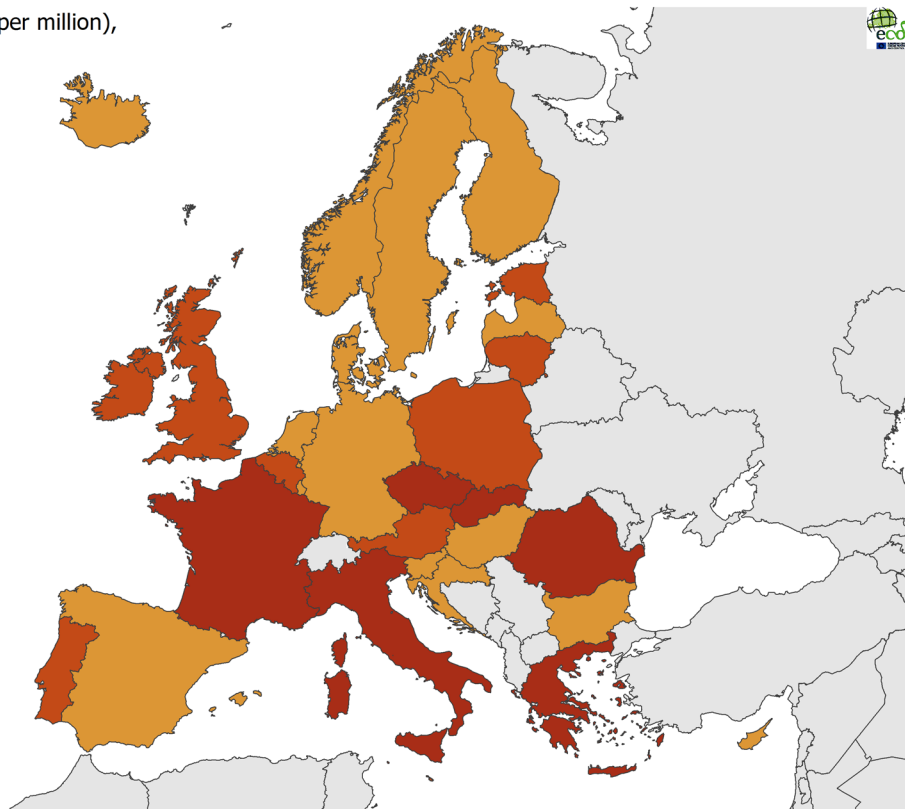
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Figure 2. Measles notification rate per million population by country, EU/EEA, 1 March 2018–28 February 2019

Notification rate of measles (per million),
March 2018–February 2019

- 0
- 0.01–0.99
- 1.00–9.99
- 10.00–19.99
- ≥20.00
- Not included

- Luxembourg
- Malta



Produced 27 Mar 2019 using ECDC map maker: <https://emma.ecdc.europa.eu>

Twenty-nine deaths attributable to measles were reported to TESSy during the 12-month period in Romania (19), Italy (7), France (2) and Greece (1; Figure 3).

Figure 3. Number of measles deaths by country, EU/EEA, 1 March 2018–28 February 2019 (n=29)

Number of measles deaths,
March 2018–February 2019

- 0
- 1
- 5
- 10
- EU/EEA Member States
- Other countries

- Luxembourg
- Malta



Produced 27 Mar 2019 using ECDC map maker: <https://emma.ecdc.europa.eu>

Importation status was reported by 30 countries and known for 10 454 cases (87%), 761 (7%) of which were imported¹.

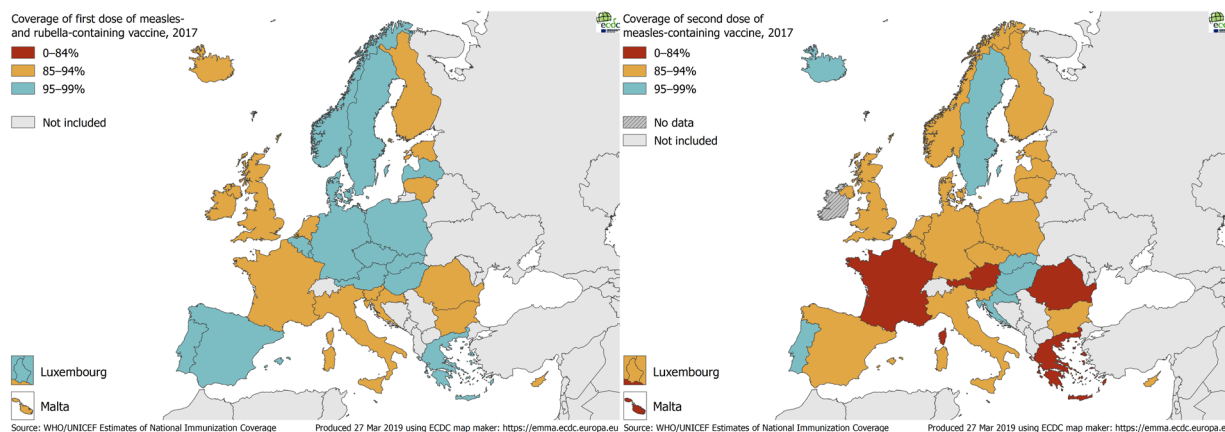
Of 11 787 cases with known age, 3 442 (29%) were children under five years and 6 306 (53%) were aged 15 years or older. The highest notification rates were observed in children under one year (263.9 cases per million) and in children aged 1–4 years (99.2 cases per million).

A total of 1 397 cases (12%) had unknown vaccination status. The proportion of cases with unknown vaccination status was highest in adults aged 30 years and above (707 of 3 167 cases; 22%). Of 10 390 cases (87% of all cases) with known age and vaccination status, 7 985 (77%) were unvaccinated, 1 305 (13%) were vaccinated with one dose of measles-containing vaccine, 888 (9%) were vaccinated with two or more doses and 212 (2%) were vaccinated with an unknown number of doses.

The proportion of unvaccinated cases was highest among children under one year (1 267 of 1 359 cases; 93%), too young to have received the first dose of measles-containing vaccine. Infants under one year are particularly vulnerable to measles complications and are best protected by herd immunity. Among 2 083 cases aged 1–4 years, 1 547 (74%) were unvaccinated, 359 (17%) were vaccinated with one dose of measles-containing vaccine, 46 (2%) were vaccinated with two or more doses and 22 (1%) were vaccinated with an unknown number of doses.

Measles continues to spread across Europe because vaccination coverage in many countries is suboptimal. The latest WHO-UNICEF estimates of national immunisation coverage for the first [5] and second [6] doses of measles-containing vaccine show that only four EU/EEA countries (Hungary, Portugal, Slovakia and Sweden) reported at least 95% vaccination coverage for both doses of in 2017 (Figure 4). If the elimination goal is to be reached, vaccination coverage for children and adults needs to increase in a number of countries. Sustained vaccination coverage of at least 95% for both the first and second doses of measles-containing vaccine must be achieved at all subnational levels and in all communities to interrupt measles circulation [7].

Figure 4. Vaccination coverage for first (left) dose of measles- and rubella-containing vaccine and second (right) dose of measles-containing vaccine, EU/EEA, 2017



¹ Cases were classified as imported if there was virological and/or epidemiological evidence of exposure outside the region or country 7–18 days prior to rash onset.

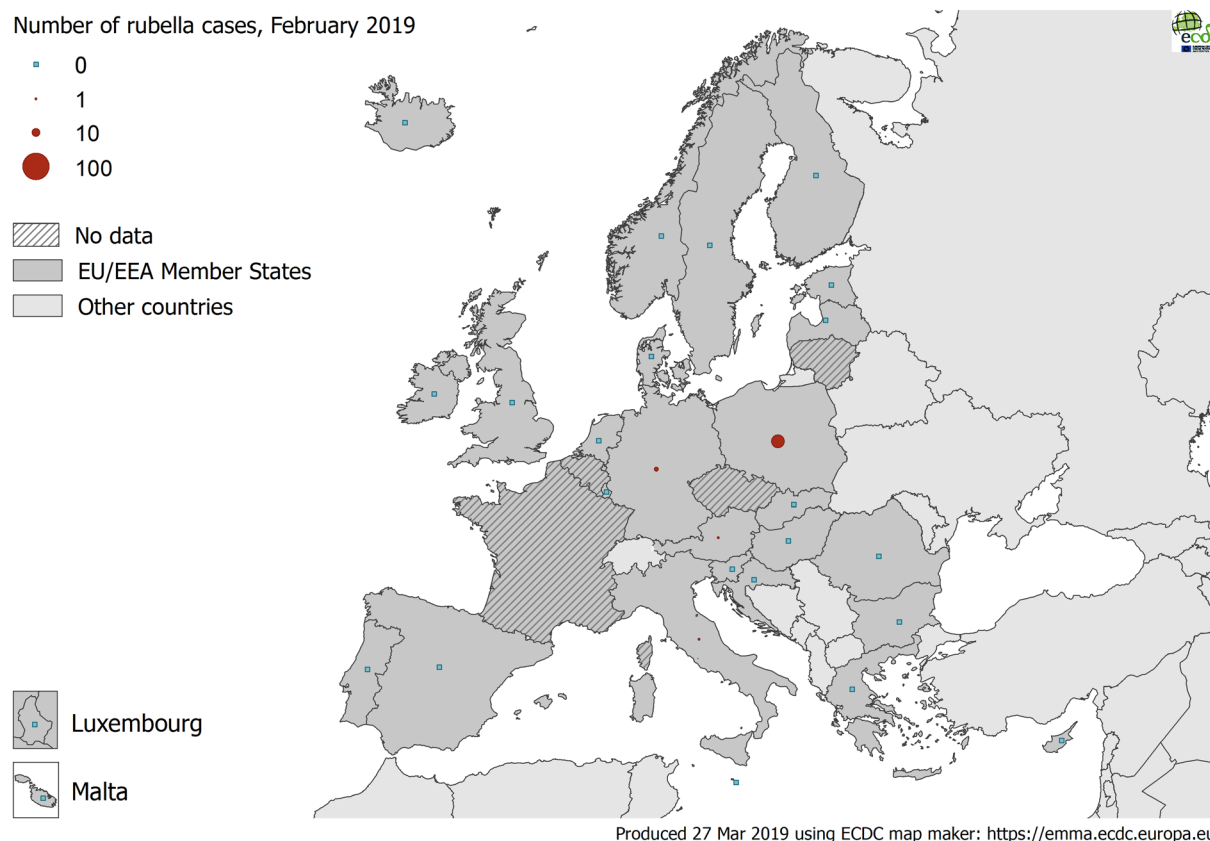
Rubella

Rubella in February 2019

Twenty-six countries reported rubella data for February 2019, with 30 cases reported by four countries (Austria, Germany, Italy and Poland) and 22 countries reporting no cases. The Czech Republic and Lithuania did not report rubella data for February 2019 (Figure 5).

Overall, case numbers continued to decrease compared with the previous two months. Twenty-five of the 30 cases (83%) were reported by Poland (Table 2).

Figure 5. Number of rubella cases by country, EU/EEA, February 2019 (n=30)



Rubella between March 2018 and February 2019

Between 1 March 2018–28 February 2019, 13 EU/EEA Member States reported 557 cases of rubella, 49 (9%) of which were laboratory-confirmed. Fifteen countries reported no cases. The highest number of cases were reported by Poland (440), Germany (56), Italy (22), Spain (16) and Romania (8), accounting for 79%, 10%, 4%, 3% and 1% of all cases, respectively (Table 2). Notification rates per million population above the EU/EEA average (1.3) were reported by Poland (11.6; Figure 6).

Data from Poland were reported in an aggregated format and should be interpreted with caution, as only three of 440 cases (1%) were laboratory-confirmed. The highest burden among cases reported by Poland was in children, with 143 (33%) cases in children aged 5–9 years, 128 (29%) cases in children aged 1–4 years and 54 (12%) cases in infants under one year.

No deaths attributable to rubella were reported to TESSy during the 12-month period.

Table 2. Number of rubella cases by month and notification rate per million population by country, EU/EEA, 1 March 2018–28 February 2019

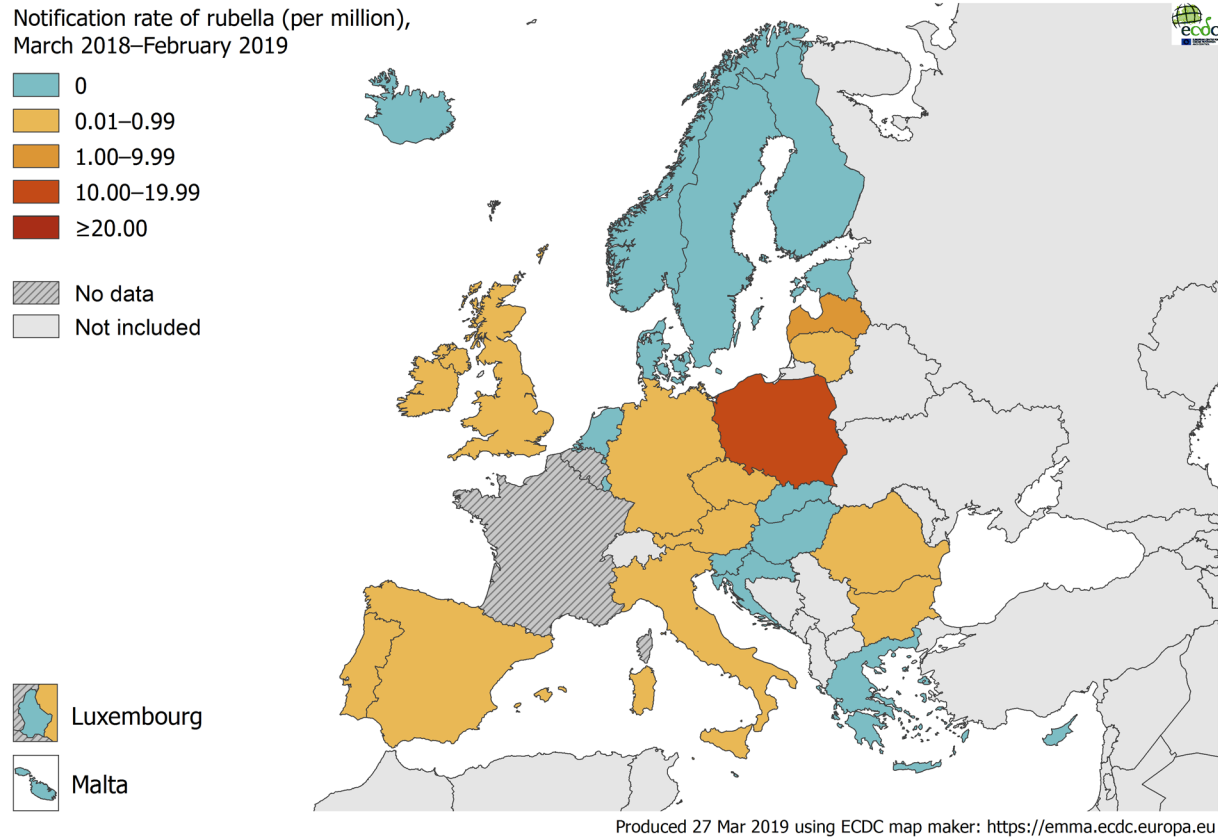
Country	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2019	2019	Total cases	Cases per million	Total lab-positive cases
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb			
Austria	0	0	0	0	0	0	0	0	0	0	0	1	1	0.1	1
Bulgaria	0	1	0	0	0	0	0	0	0	0	0	0	1	0.1	0
Croatia	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Cyprus	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Czech Republic	0	0	0	0	0	1	0	0	0	0	0	.	1	0.1	0
Denmark	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Estonia	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Finland	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Germany	7	5	3	6	7	4	6	6	1	4	4	3	56	0.7	15
Greece	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Hungary	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Iceland	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Ireland	0	1	0	0	0	1	0	0	1	0	0	0	3	0.6	0
Italy	2	4	2	2	3	1	2	0	2	0	3	1	22	0.4	6
Latvia	1	0	1	0	0	0	0	0	0	0	0	0	2	1.0	2
Lithuania	0	0	1	0	0	0	0	0	0	0	0	.	1	0.4	1
Luxembourg	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Malta	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Netherlands	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Norway	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Poland	42	47	58	50	39	36	22	27	26	24	44	25	440	11.6	3
Portugal	0	0	0	2	0	1	1	0	0	0	1	0	5	0.5	3
Romania	1	0	1	2	0	2	0	1	0	1	0	0	8	0.4	5
Slovakia	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Slovenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Spain	0	1	1	1	0	0	0	0	0	10	3	0	16	0.3	12
Sweden	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
United Kingdom	0	0	0	0	0	0	1	0	0	0	0	0	1	0.0	1
EU/EEA	53	59	67	63	49	46	32	34	30	39	55	30	557	1.3	49

Source: TESSy, data extracted on 27 March 2019.

.: data not reported.

The national surveillance system for rubella in Denmark currently only captures rubella infections during pregnancy, therefore the true incidence of rubella in the Danish population is underestimated.

Figure 6. Rubella notification rate per million population by country, EU/EEA, 1 March 2018–28 February 2019



The latest WHO-UNICEF estimates of national immunisation coverage [8] show that 15 EU/EEA countries reported at least 95% vaccination coverage for the first dose of rubella-containing vaccine in 2017 (Figure 4). Sustained vaccination coverage of at least 95% for at least one dose of rubella-containing vaccine must be achieved at all subnational levels and in all communities to interrupt rubella circulation and achieve elimination [7].

References

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