

SURVEILLANCE REPORT

Monthly measles and rubella monitoring report

December 2018

Period covered: 1 November 2017 to 31 October 2018

Introduction

This monitoring report is based on measles and rubella data from The European Surveillance System (TESSy) for the period 1 November 2017 to 31 October 2018.

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 also 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 October 2018

Twenty-nine countries reported measles data for October 2018, with 279 cases reported by 15 countries and 14 countries reporting no cases. Latvia did not report measles data for October 2018 (Figure 1).

Overall, case numbers changed little compared with the previous month. Italy, France and Romania had the highest case counts with 75, 68 and 54 cases respectively (Table 1).

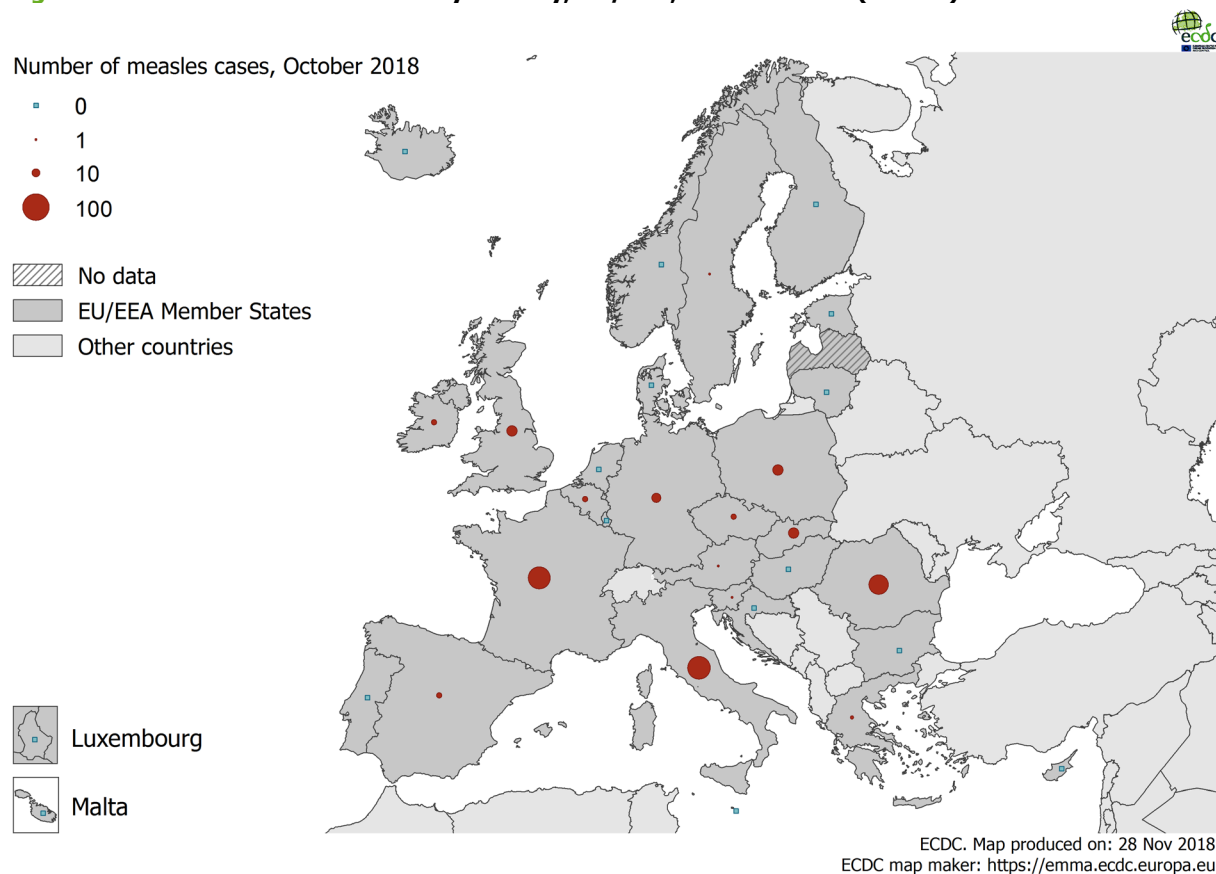
The largest decreases were reported in Slovakia and Germany.

- Slovakia reported 16 cases in October, compared with 28 in September and 87 cases in August.
- Germany reported 13 cases in October, compared with 25 in September and 29 cases in August.

The largest increases were reported in France and Italy.

- France reported 68 cases in October, compared with 37 in September and 29 cases in August.
- Italy reported 75 cases in October, compared with 49 in September and 69 cases in August.

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, October 2018 (n=279)

Measles between November 2017 and October 2018

Between 1 November 2017 and 31 October 2018, 30 EU/EEA Member States reported 13 144 cases of measles, 9 189 (70%) of which were laboratory-confirmed. None of the countries reported no cases. The highest number of cases were reported by Greece (2 884), France (2 863), Italy (2 552), Romania (1 611) and United Kingdom (1 019), accounting for 22%, 22%, 19%, 12% and 8% of all cases respectively (Table 1). Notification rates per million population above the EU/EEA average (25.4) were reported by Greece (267.8), Slovakia (89.6), Romania (82.0), France (42.7) and Italy (42.1) (Figure 2).

The number of measles cases reported to TESSy may be an underestimation in certain cases. This may apply in particular to Romania. 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].

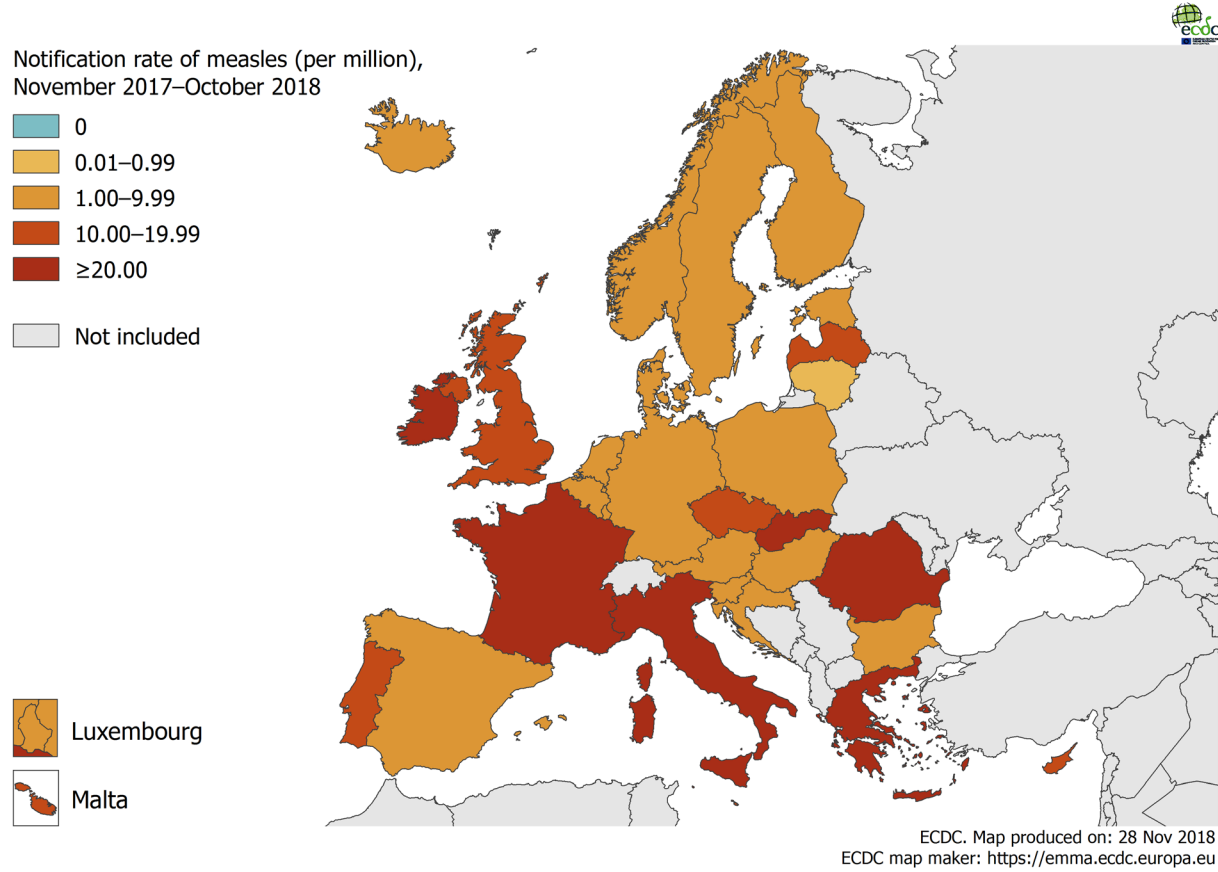
Table 1. Number of measles cases by month and notification rate per million population by country, EU/EEA, 1 November 2017 to 31 October 2018

Country	2017		2018										Total cases	Cases per million	Total lab-positive cases
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct			
Austria	8	1	7	5	15	17	12	6	1	3	6	1	82	9.3	74
Belgium	3	1	1	6	9	11	24	22	3	11	14	4	109	9.6	89
Bulgaria	0	0	0	1	2	1	1	0	3	0	0	0	8	1.1	8
Croatia	0	0	0	0	0	1	2	16	3	1	0	0	23	5.5	23
Cyprus	0	0	5	6	4	0	0	0	0	0	0	0	15	17.6	15
Czech Republic	6	4	5	8	15	10	68	41	6	5	7	4	179	16.9	176
Denmark	0	0	0	0	3	0	0	0	0	1	2	0	6	1.0	6
Estonia	0	0	0	0	2	7	1	0	0	0	0	0	10	7.6	10
Finland	0	0	0	0	0	0	4	0	0	3	0	0	7	1.3	7
France	11	65	237	515	760	619	251	190	81	29	37	68	2 863	42.7	1 403
Germany	9	14	26	30	50	98	105	94	54	29	25	13	547	6.6	459
Greece	250	342	431	453	549	352	290	155	38	18	4	2	2 884	267.8	1 610
Hungary	0	0	2	5	6	0	0	0	0	0	0	0	13	1.3	13
Iceland	1	0	0	0	0	0	0	0	0	0	0	0	1	3.0	1
Ireland	9	5	9	13	17	12	0	2	5	18	6	4	100	20.9	85
Italy	66	113	213	296	374	467	428	275	127	69	49	75	2 552	42.1	1 980
Latvia	0	0	7	7	1	0	2	3	1	1	0	.	22	11.3	22
Lithuania	0	0	0	0	0	0	0	0	1	1	0	0	2	0.7	2
Luxembourg	1	0	0	0	0	1	0	0	0	2	0	0	4	6.8	4
Malta	0	0	0	0	0	0	0	0	5	0	0	0	5	10.9	5
Netherlands	0	0	0	2	2	0	3	10	1	4	0	0	22	1.3	20
Norway	0	0	0	4	2	1	2	0	0	3	0	0	12	2.3	10
Poland	3	1	18	12	3	17	19	10	9	18	9	16	135	3.6	104
Portugal	0	0	0	4	108	13	0	3	1	3	3	0	135	13.1	126
Romania	339	329	101	102	105	111	104	111	100	92	63	54	1 611	82.0	1 330
Slovakia	0	5	1	0	0	3	18	72	257	87	28	16	487	89.6	303
Slovenia	0	1	2	0	0	0	3	3	0	0	0	1	10	4.8	10
Spain	1	11	6	14	53	51	41	25	14	6	4	4	230	4.9	224
Sweden	0	11	17	2	2	2	4	3	3	2	4	1	51	5.1	51
United Kingdom	65	46	55	81	149	201	154	100	81	55	16	16	1 019	15.5	1 019
EU/EEA	772	949	1 143	1 566	2 231	1 995	1 536	1 141	794	461	277	279	13 144	25.4	9 189

Source: TESSy, data extracted on 28 November 2018.

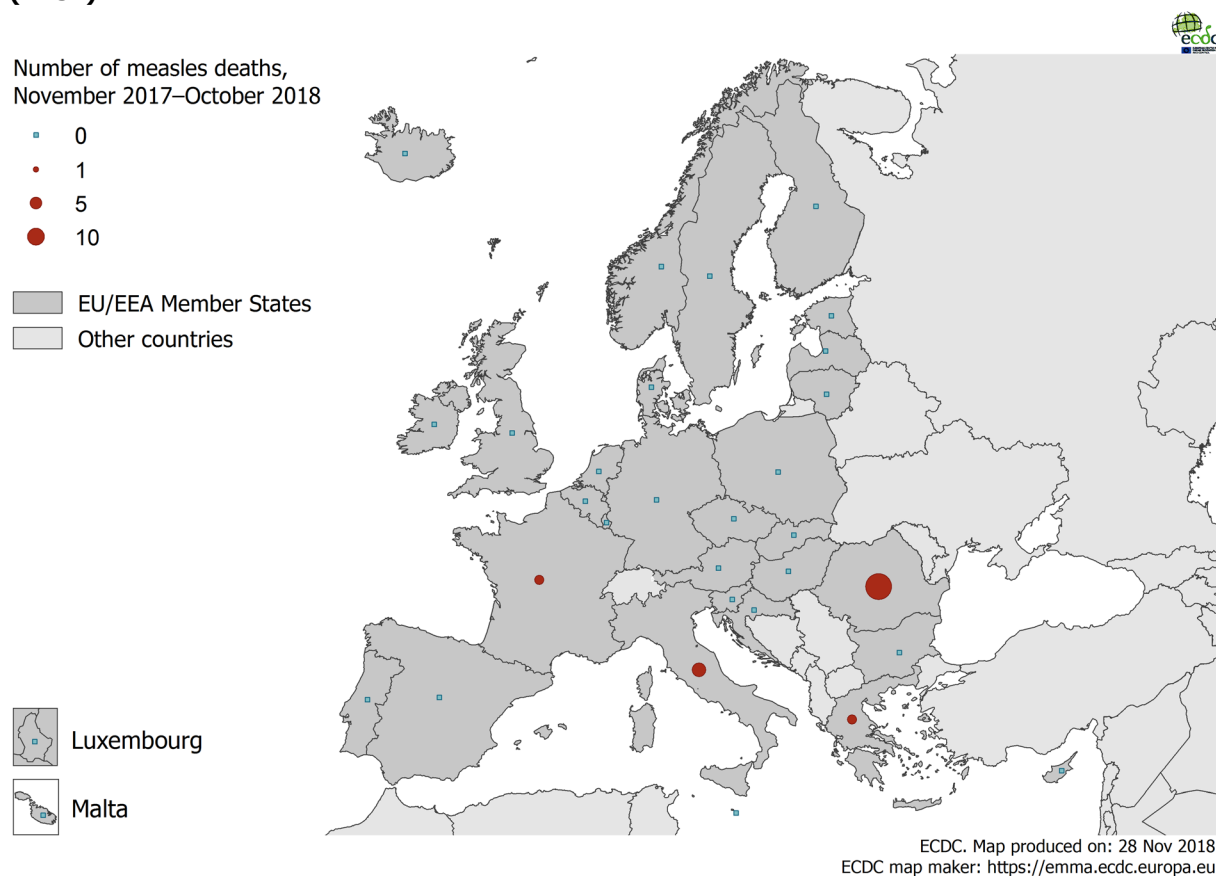
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Figure 2. Measles notification rate per million population by country, EU/EEA, 1 November 2017 to 31 October 2018



Thirty-seven deaths attributable to measles were reported to TESSy during the 12-month period in Romania (24), Italy (7), France (3) and Greece (3) (Figure 3).

Figure 3. Number of measles deaths by country, EU/EEA, 1 November 2017 to 31 October 2018 (n=37)



Importation status was reported by 30 countries and known for 12 141 cases (92%). Among cases with known importation status, 8 530 (70%) were reported to be endemic, 2 949 (24%) were import-related and 662 (5%) were imported.¹

Of 13 143 cases with known age, 4 004 (30%) were children under five years and 6 600 (50%) were aged 15 years or older. The highest notification rates were in children under one year (289.7 cases per million) and aged 1–4 years (119.6 cases per million).

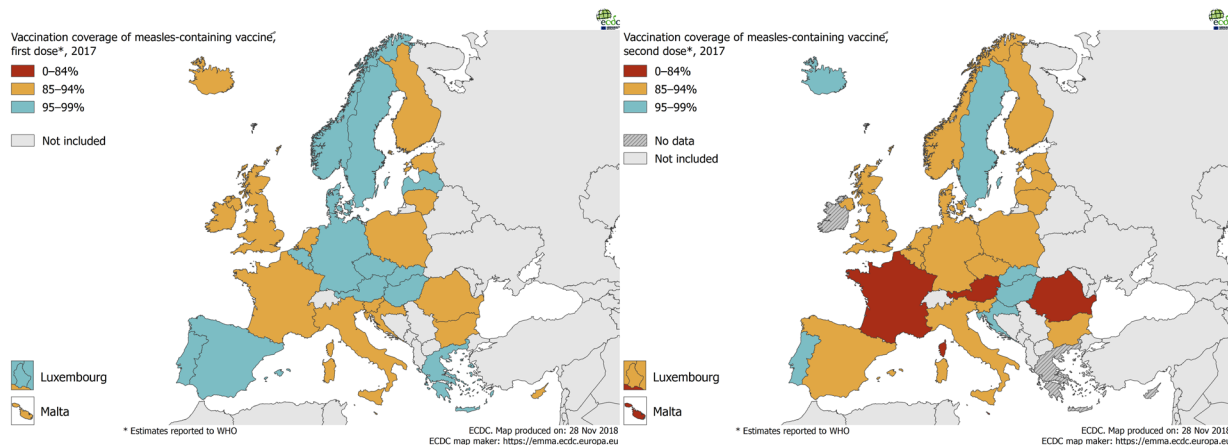
A total of 1 395 cases (11%) had unknown vaccination status. The proportion of cases with unknown vaccination status was highest in adults aged 30 years and above (692 of 3 170 cases; 22%). Of 11 748 cases (89% of all cases) with known age and vaccination status, 9 520 (81%) were unvaccinated, 1 315 (11%) were vaccinated with one dose of measles-containing vaccine, 805 (7%) were vaccinated with two or more doses and 108 (1%) were vaccinated with an unknown number of doses.

The proportion of unvaccinated cases was highest among children under one year (1 410 of 1 492 cases; 95%) who are 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 2 512 cases aged 1–4 years, 1 969 (78%) were unvaccinated, 376 (15%) were vaccinated with one dose of measles-containing vaccine, 50 (2%) were vaccinated with two or more doses and 11 (<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 data on national vaccination 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 measles-containing vaccine 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 must be achieved at all subnational levels and in all communities to interrupt measles circulation [7].

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, while cases were classified as import related if they were locally acquired infections caused by imported virus, as supported by epidemiological and/or virological evidence.

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



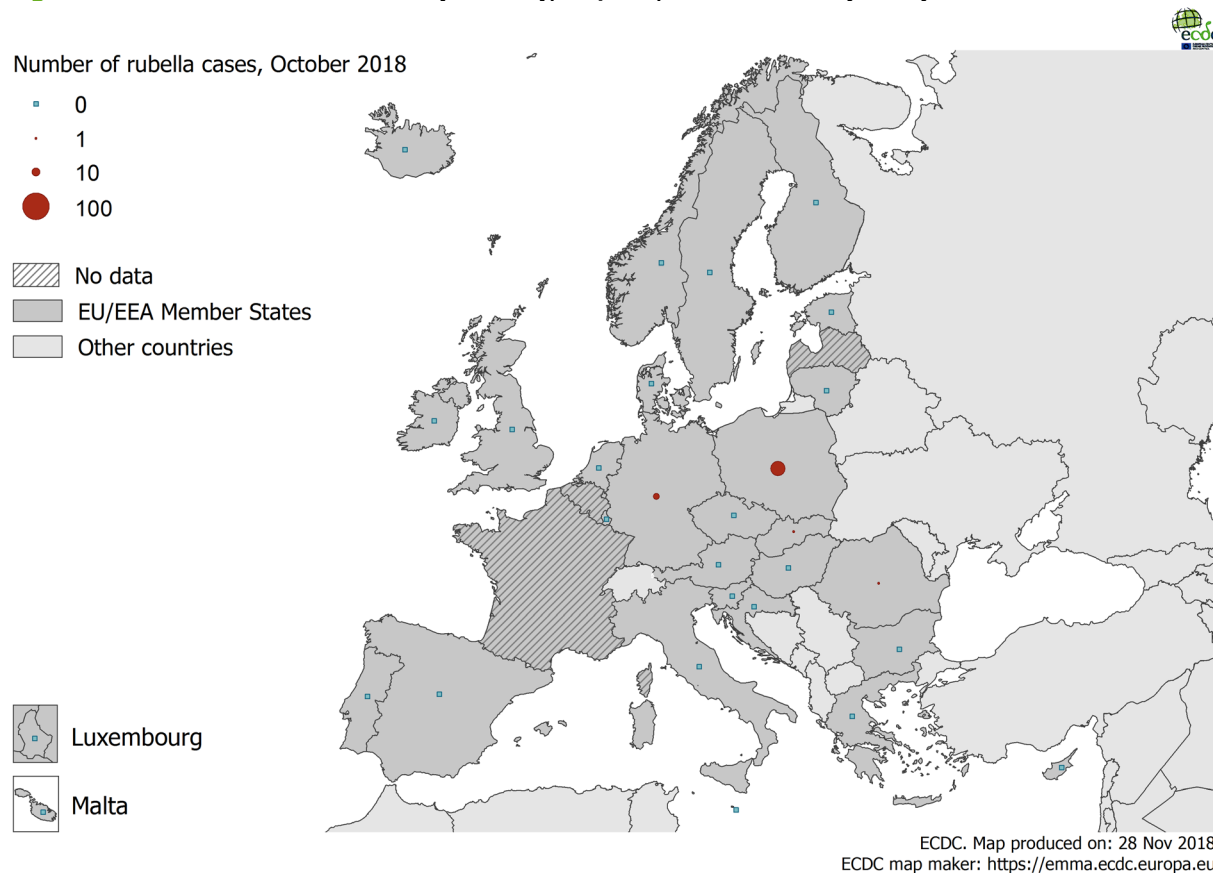
Rubella

Rubella in October 2018

Twenty-seven countries reported rubella data for October 2018, with a total of 36 cases reported by four countries (Germany, Poland, Romania and Slovakia) and 23 countries reporting zero cases. Latvia did not report rubella data for October 2018 (Figure 5).

Overall, case numbers changed little compared with the previous month. Twenty-nine of the 36 cases (81%) were reported by Poland (Table 2). No new rubella outbreaks were detected in the EU/EEA.

Figure 5. Number of rubella cases by country, EU/EEA, October 2018 (n=36)



Rubella between November 2017 and October 2018

Between 1 November 2017 and 31 October 2018, 14 EU/EEA Member States reported 602 cases of rubella, 60 (10%) of which were laboratory-confirmed. Fourteen countries reported no cases. The highest number of cases were reported by Poland (467), Germany (61), Italy (24), Austria (20) and Romania (8), accounting for 78%, 10%, 4%, 3% and 1% of all cases respectively (Table 2). Notification rates per million population above the EU/EEA average (1.4) were reported by Poland (12.3), Austria (2.3) and Latvia (1.5) (Figure 6).

Data from Poland were reported in an aggregated format and should be interpreted with caution, as only three of 467 cases (0.6%) were laboratory-confirmed. The highest burden among cases reported by Poland was in children, with 146 (31%) cases in children aged 1–4 years, 138 (30%) cases in children aged 5–9 years and 65 (14%) cases in children under one year.

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

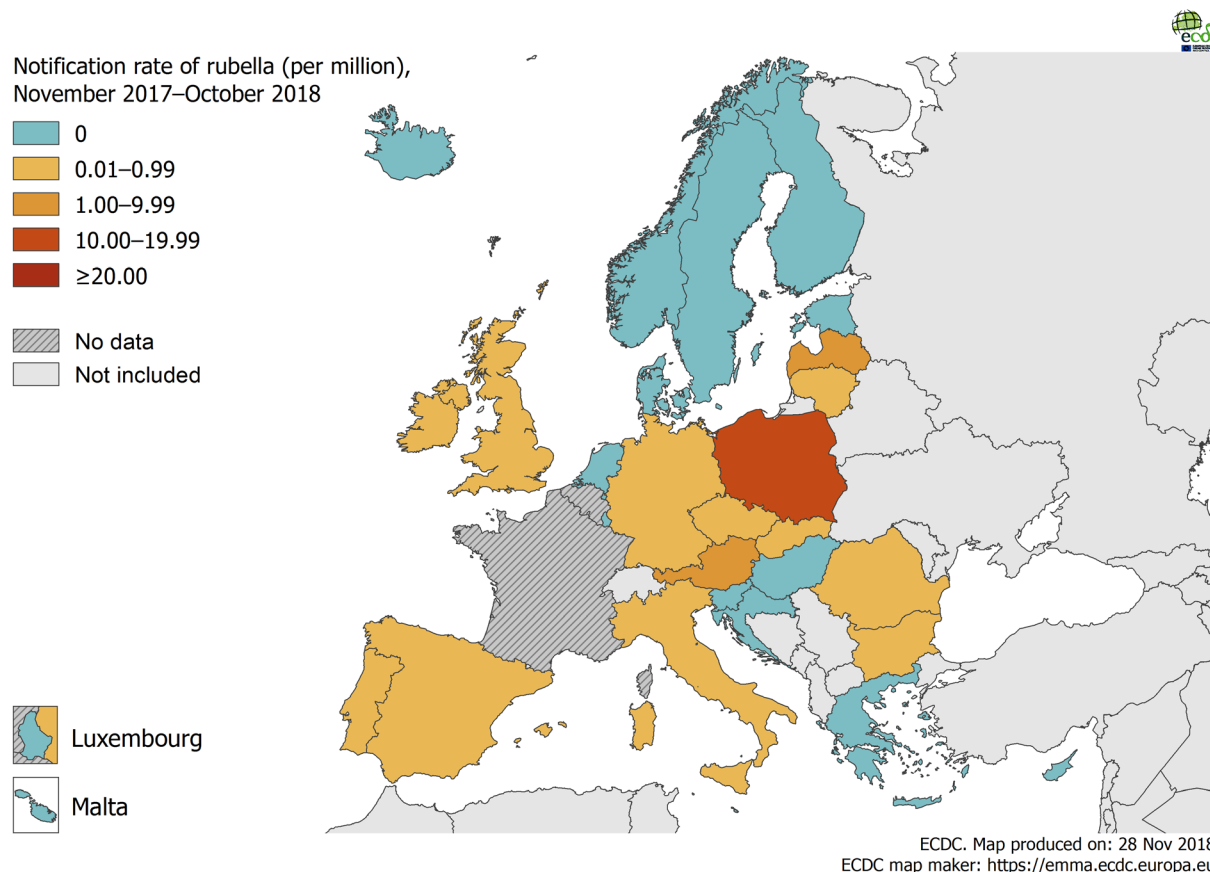
Table 2. Number of rubella cases by month and notification rate per million population by country, EU/EEA, 1 November 2017 to 31 October 2018

Country	2017		2018										Total cases	Cases per million	Total lab-positive cases
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct			
Austria	7	5	8	0	0	0	0	0	0	0	0	0	20	2.3	20
Bulgaria	0	0	0	0	0	1	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	1	0	0	0	0	0	1	0	0	2	0.2	1
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	5	3	5	4	7	5	3	6	7	5	6	5	61	0.7	12
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	0	0	1	0	1	0	0	0	1	0	0	3	0.6	0
Italy	2	2	1	2	2	4	2	2	3	2	2	0	24	0.4	7
Latvia	0	0	0	1	1	0	1	0	0	0	0	.	3	1.5	3
Lithuania	0	0	0	0	0	0	1	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	31	33	36	43	42	47	58	50	39	38	21	29	467	12.3	3
Portugal	0	0	0	1	0	0	0	2	0	1	1	0	5	0.5	3
Romania	1	0	1	0	1	1	0	1	1	1	0	1	8	0.4	5
Slovakia	0	0	0	0	0	0	0	0	0	0	0	1	1	0.2	0
Slovenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
Spain	0	0	0	0	0	1	1	1	0	0	0	0	3	0.1	2
Sweden	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0
United Kingdom	1	0	0	1	0	0	0	0	0	0	1	0	3	0.0	3
EU/EEA	47	43	51	54	53	60	66	62	50	49	31	36	602	1.4	60

Source: TESSy, data extracted on 28 November 2018.

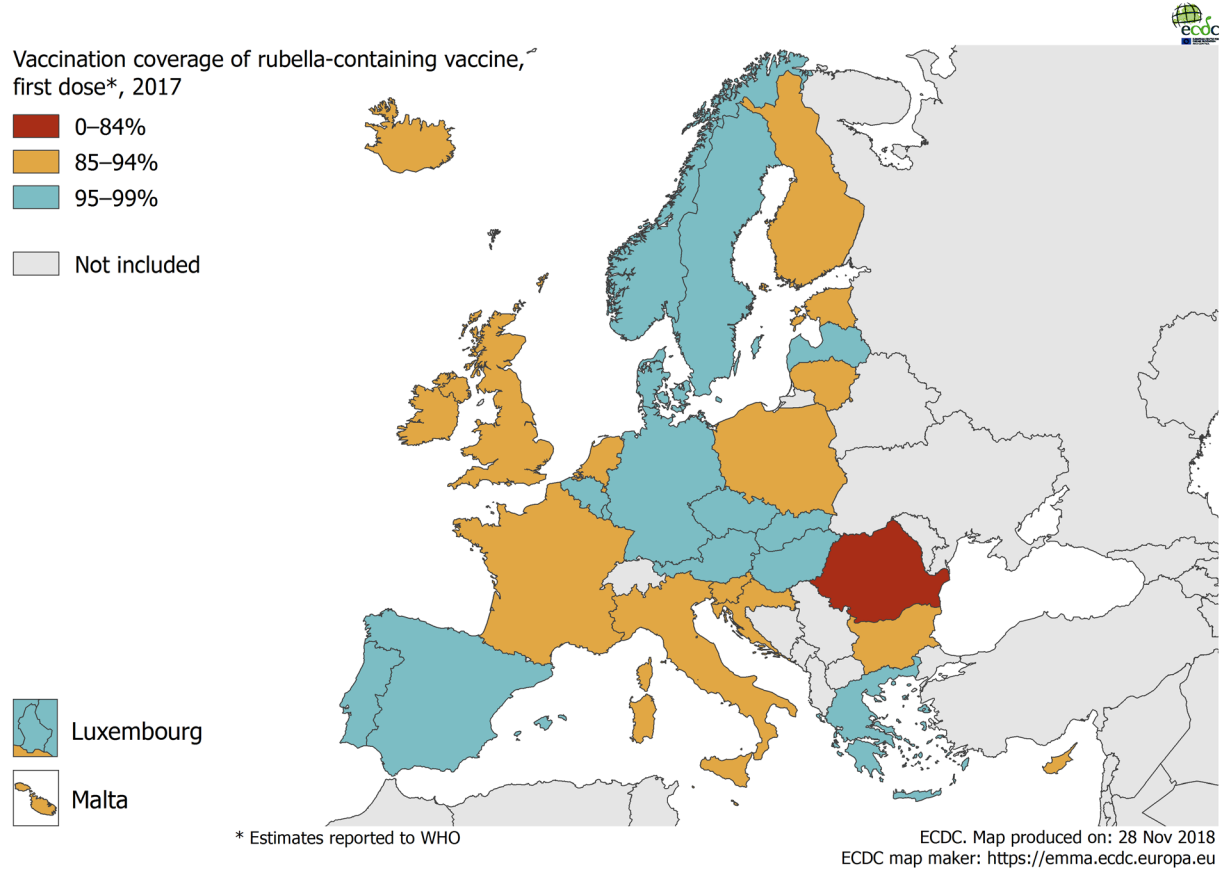
..: data not reported.

Figure 6. Rubella notification rate per million population by country, EU/EEA, 1 November 2017 to 31 October 2018



The latest WHO data on national rubella vaccination coverage [8] show that 14 EU/EEA countries reported at least 95% vaccination coverage for the first dose of rubella-containing vaccine in 2017 (Figure 7). 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].

Figure 7. Vaccination coverage for the first dose of rubella-containing vaccine by country, EU/EEA, 2017



References

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