



European Centre for Disease Prevention and Control

# Trends for ECDC measles and rubella monitoring, 2013-2017

European Immunisation Week, 23–29 April 2018



European Centre for Disease Prevention and Control

# Measles

European Immunisation Week, 23–29 April 2018

# Measles surveillance in EU/EEA



- 30 EU/EEA Member States report measles surveillance data to ECDC on a monthly basis
- Measles cases are reported and presented according to the 2012 EU case definition: possible, probable, confirmed cases
- Notification rates were calculated using the most recent population estimates available from Eurostat (2017)

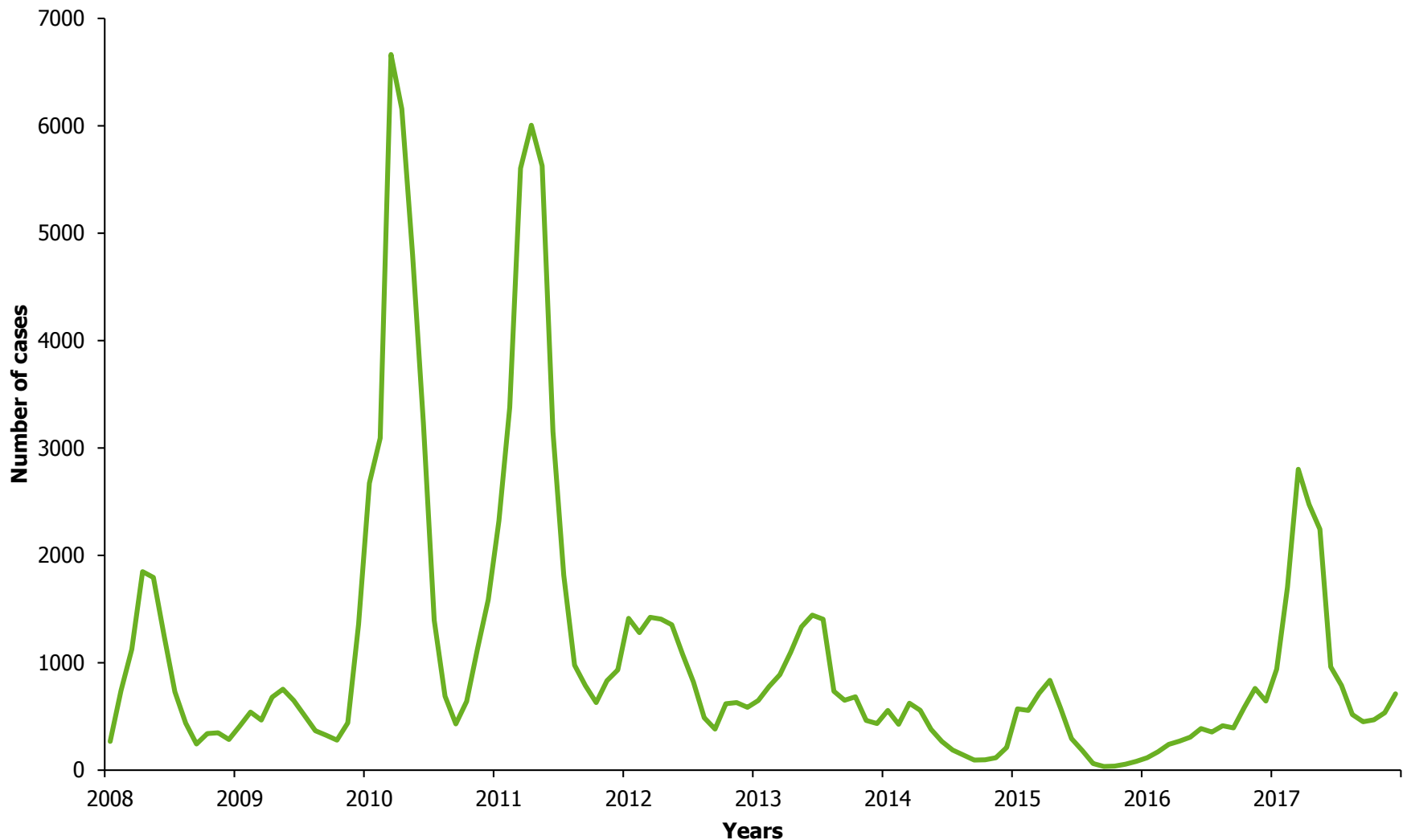
# Number of measles cases by month and notification rate, 2017, EU/EEA countries

Country	2017 Jan	2017 Feb	2017 Mar	2017 Apr	2017 May	2017 Jun	2017 Jul	2017 Aug	2017 Sep	2017 Oct	2017 Nov	2017 Dec	Total cases	Cases per million	Total lab-positive cases
Austria	28	34	8	2	6	1	2	2	1	2	8	1	95	10.93	83
Belgium	26	79	150	35	21	34	16	0	2	0	3	1	367	32.45	243
Bulgaria	0	0	19	41	57	44	5	0	0	0	0	0	166	23.2	86
Croatia	2	5	0	0	0	0	0	0	0	0	0	0	7	1.67	7
Cyprus	0	0	0	0	1	2	0	0	0	0	0	0	3	3.54	3
Czech Republic	0	0	21	64	43	7	1	0	0	0	6	4	146	13.83	140
Denmark	0	0	1	0	0	0	0	3	0	0	0	0	4	0.7	4
Estonia	0	0	0	0	1	0	0	0	0	0	0	0	1	0.76	1
Finland	0	0	0	0	0	1	4	5	0	0	0	0	10	1.82	10
France	34	54	49	62	114	43	39	15	19	13	11	65	518	7.76	339
Germany	47	157	212	178	137	77	23	50	16	9	9	14	929	11.31	640
Greece	0	0	0	0	3	1	7	71	126	167	250	342	967	89.67	568
Hungary	1	11	3	0	0	0	9	10	1	1	0	0	36	3.66	36
Iceland	0	0	2	0	0	0	0	0	0	0	1	0	3	9.02	3
Ireland	0	0	1	0	0	0	0	0	0	10	9	5	25	5.29	23
Italy	288	471	943	816	744	602	543	236	160	126	65	104	5 098	84.03	4 042
Latvia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lithuania	0	0	0	1	0	0	1	0	0	0	0	0	2	0.69	2
Luxembourg	0	0	3	0	0	0	0	0	0	0	1	0	4	6.94	4
Malta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	2	6	2	1	1	1	3	0	0	16	0.94	15
Norway	0	0	0	0	0	0	1	0	0	0	0	0	1	0.19	1
Poland	6	6	5	4	2	4	6	1	12	13	3	1	63	1.66	40
Portugal	0	2	10	18	4	0	0	0	0	0	0	0	34	3.29	29
Romania	484	843	1 338	1 220	1 029	100	100	100	91	101	102	100	5 608	283.8	2 075
Slovakia	0	0	0	1	0	0	0	0	0	0	0	5	6	1.11	6
Slovenia	2	4	0	0	0	0	0	0	0	0	0	1	7	3.39	7
Spain	11	30	22	10	38	19	9	10	2	0	1	11	163	3.51	154
Sweden	2	8	7	3	4	0	0	2	2	2	0	11	41	4.16	41
United Kingdom	10	1	8	17	34	25	22	12	18	22	65	46	280	4.28	280
<b>Total</b>	<b>941</b>	<b>1705</b>	<b>2 802</b>	<b>2 474</b>	<b>2 244</b>	<b>962</b>	<b>789</b>	<b>518</b>	<b>451</b>	<b>469</b>	<b>534</b>	<b>711</b>	<b>14 600</b>	<b>28.3</b>	<b>8 882</b>

*Liechtenstein does not report.*

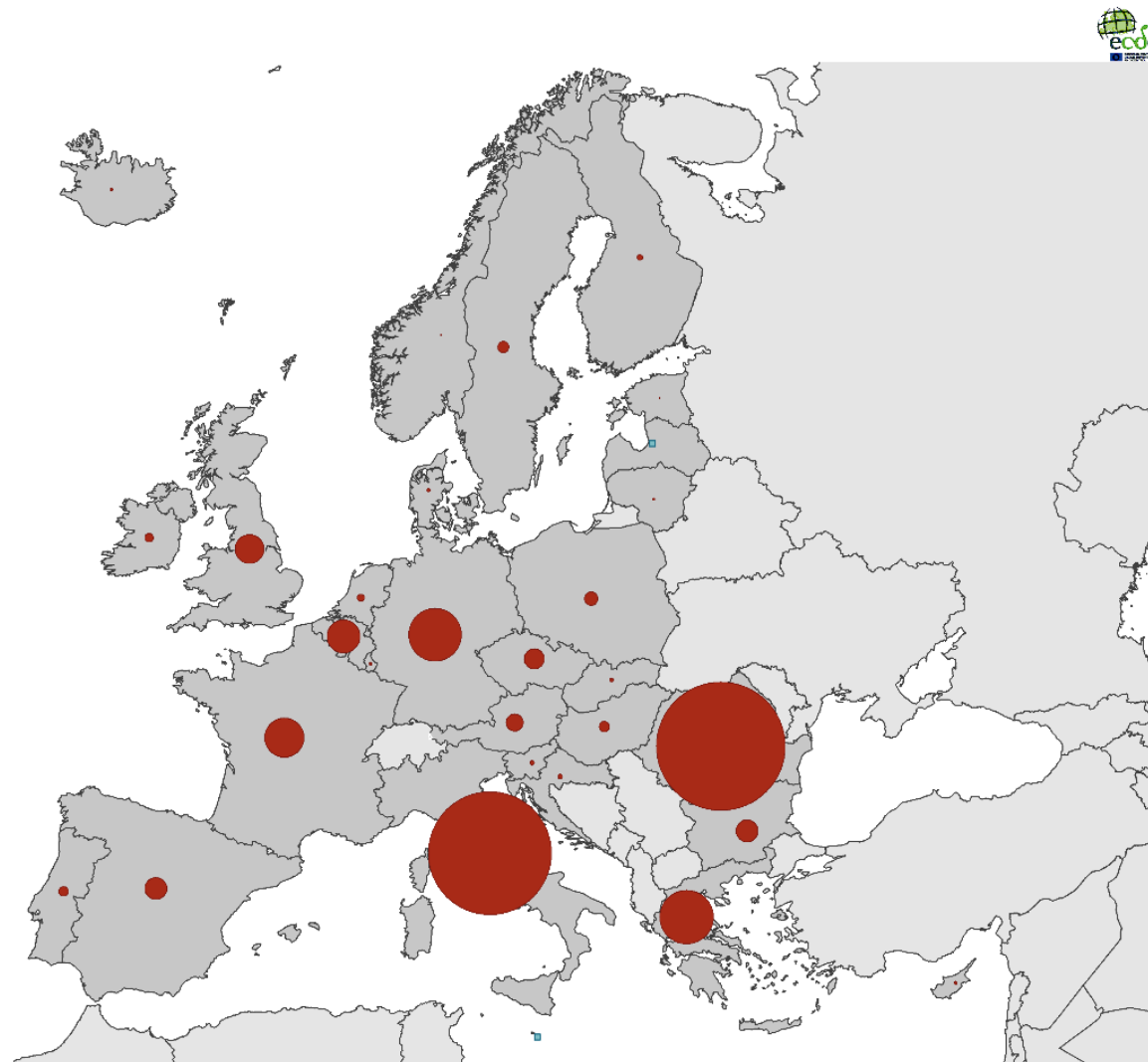
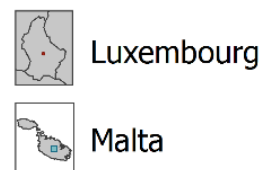
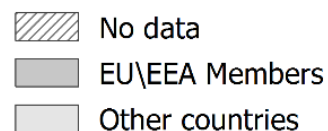
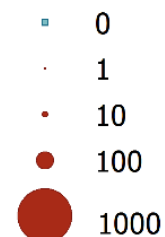
Source: The European Surveillance System TESSy as of 28 February 2018

# Number of measles cases by month, 2008-17 (n=129 673), EU/EEA countries



# Number of measles cases by country, 2017 (n=14 600), EU/EEA countries

Number of measles cases  
reported during 2017





ECDC. Map produced on: 07 Mar 2018  
ECDC map maker: <https://emma.ecdc.europa.eu>

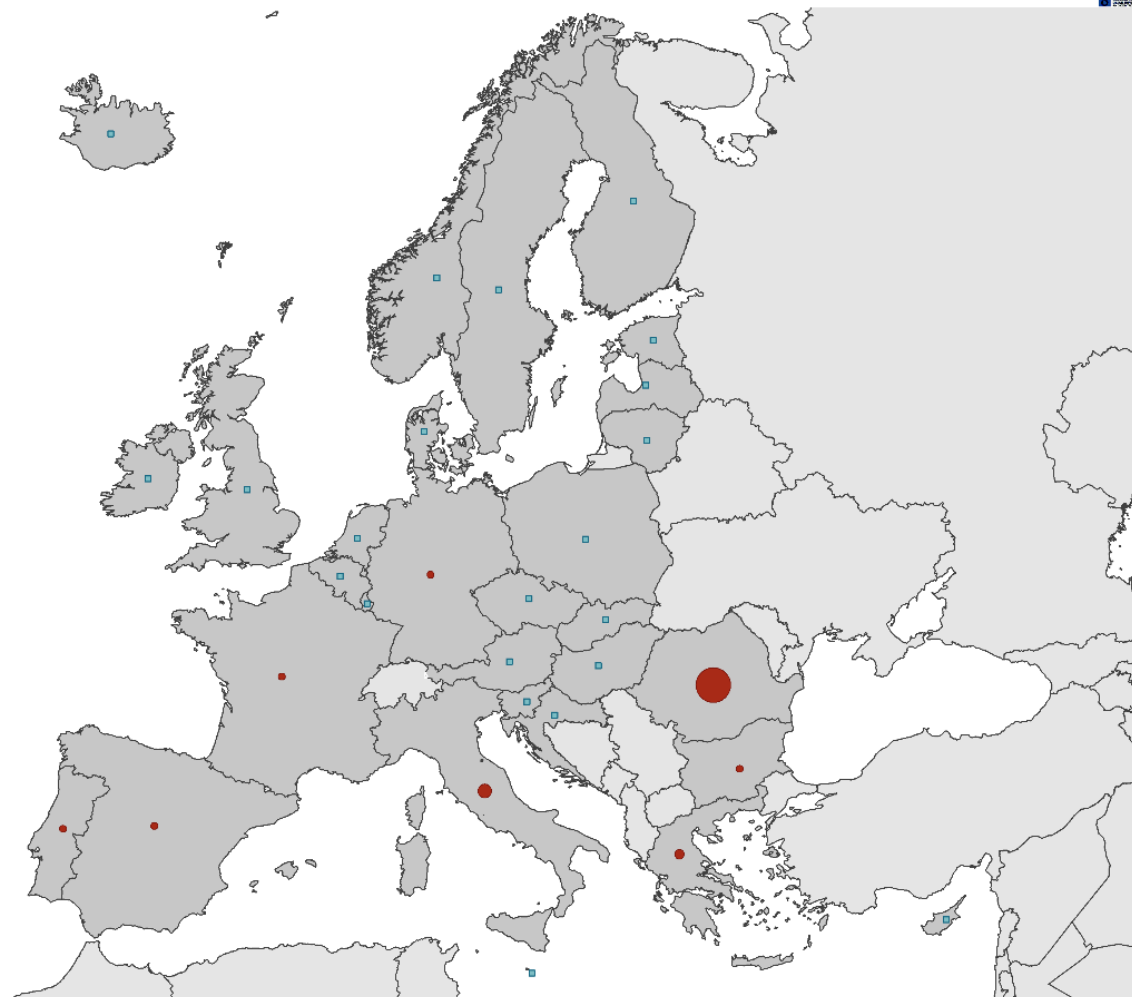
# Number of measles deaths by country, 2017 (n=37), EU/EEA countries

Measles deaths,  
during 2017

- 0
- 1
- 5
- 10

■ EU\EEA Members  
■ Other countries

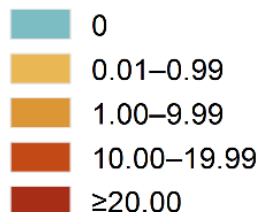
 Luxembourg  
 Malta



ECDC. Map produced on: 07 Mar 2018.  
ECDC map maker: <https://emma.ecdc.europa.eu>

# Measles subnational notification rate per million population by country\*, 2017, EU/EEA countries

Measles notification rate  
per million population  
during 2017



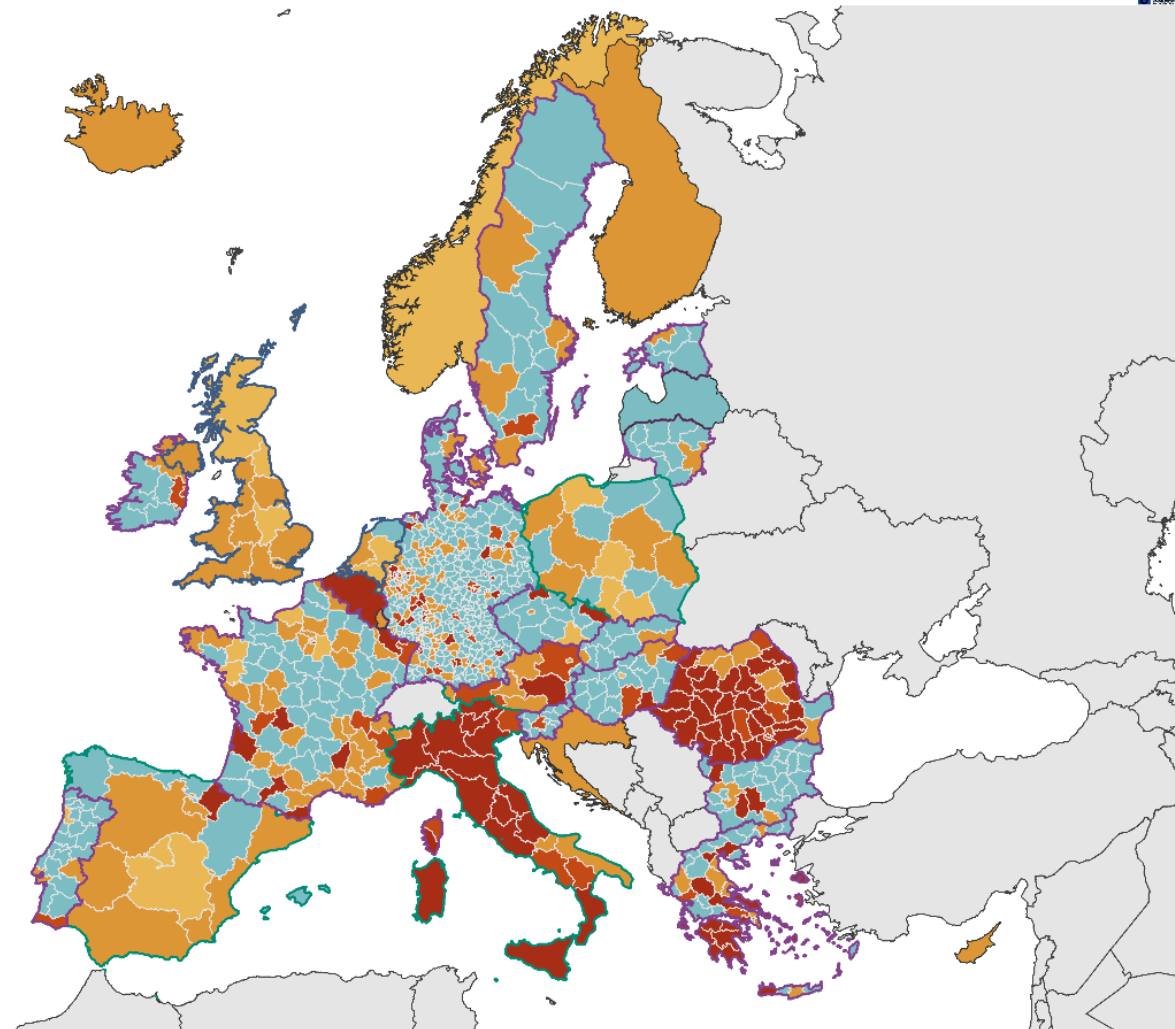
Statistical level



Luxembourg



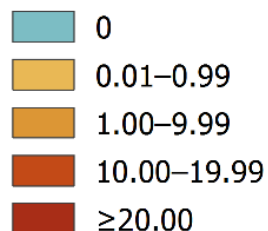
Malta



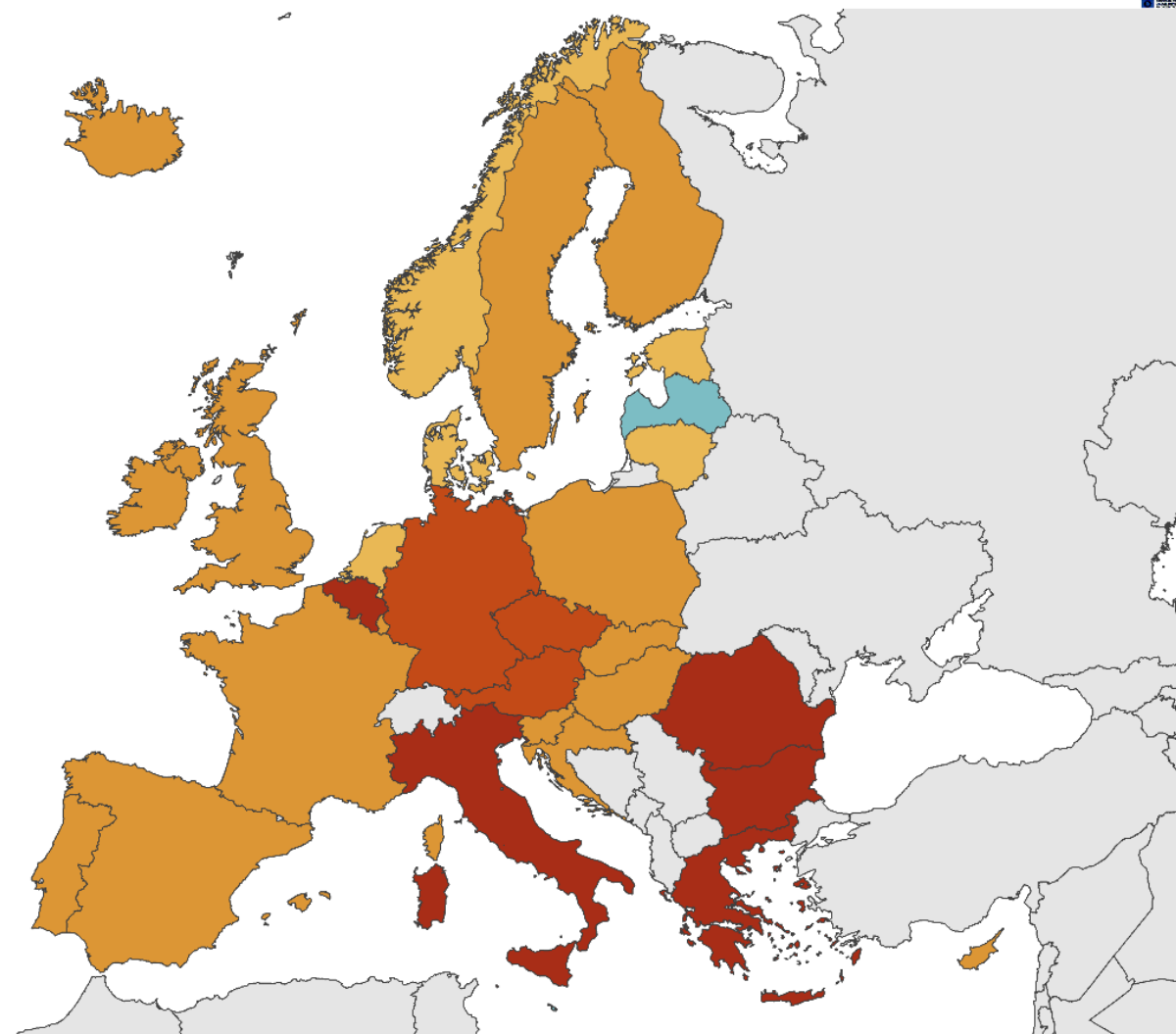
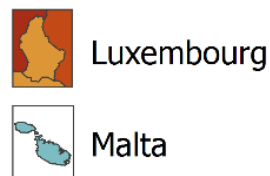
ECDC. Map produced on: 08 Mar 2018  
ECDC map maker: <https://emma.ecdc.europa.eu>

# Measles notification rate per million population by country, 2017, EU/EEA countries (n=14 600)

Measles notification rate  
during 2017



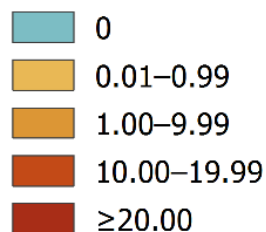
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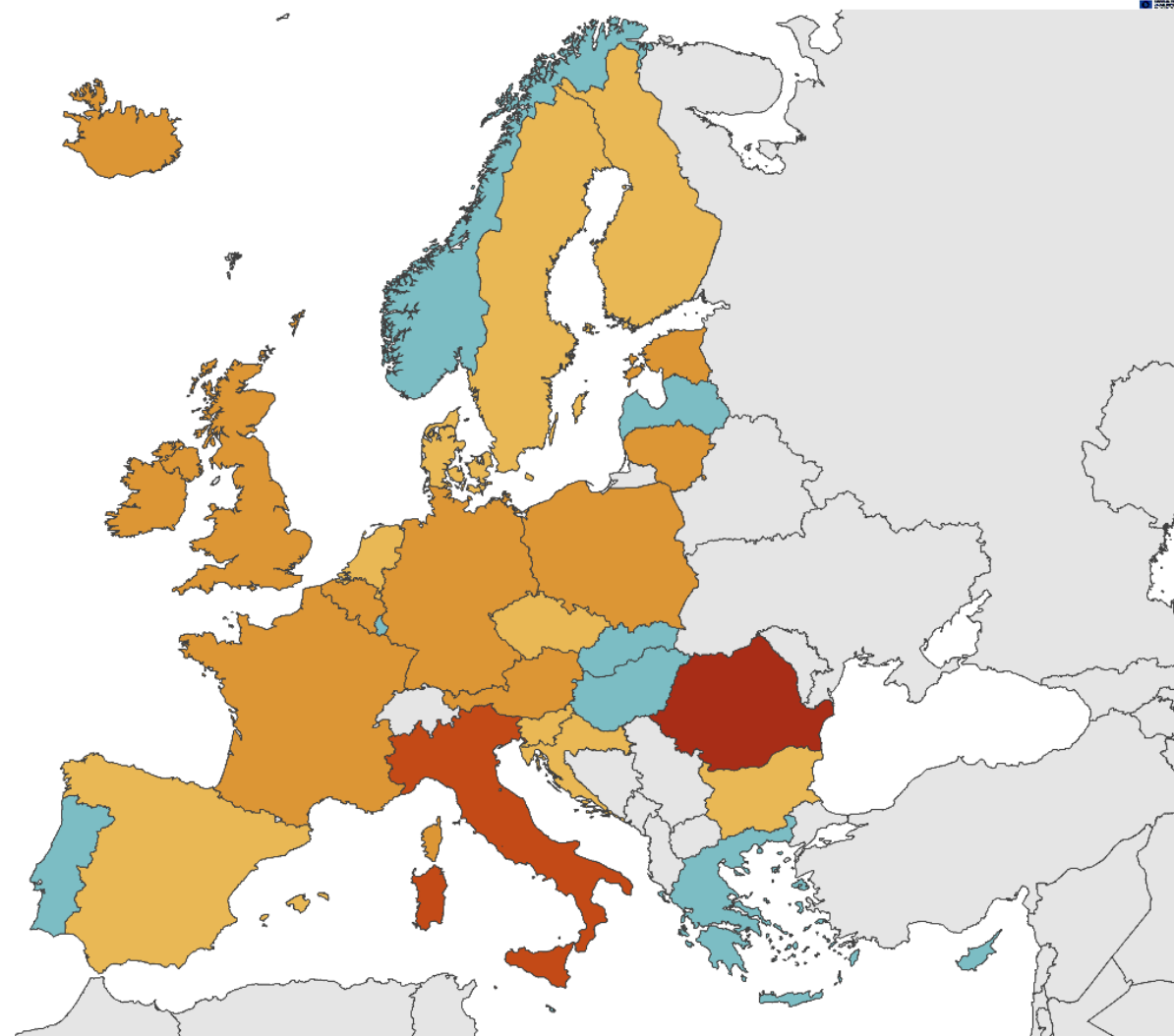
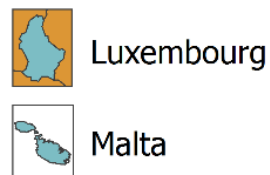
ECDC. Map produced on: 14 Mar 2018  
ECDC map maker: <https://emma.ecdc.europa.eu>

# Measles notification rate per million population by country, 2016, EU/EEA countries (n=4 642)

Measles notification rate  
during 2016



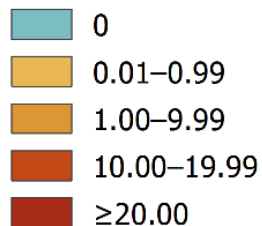
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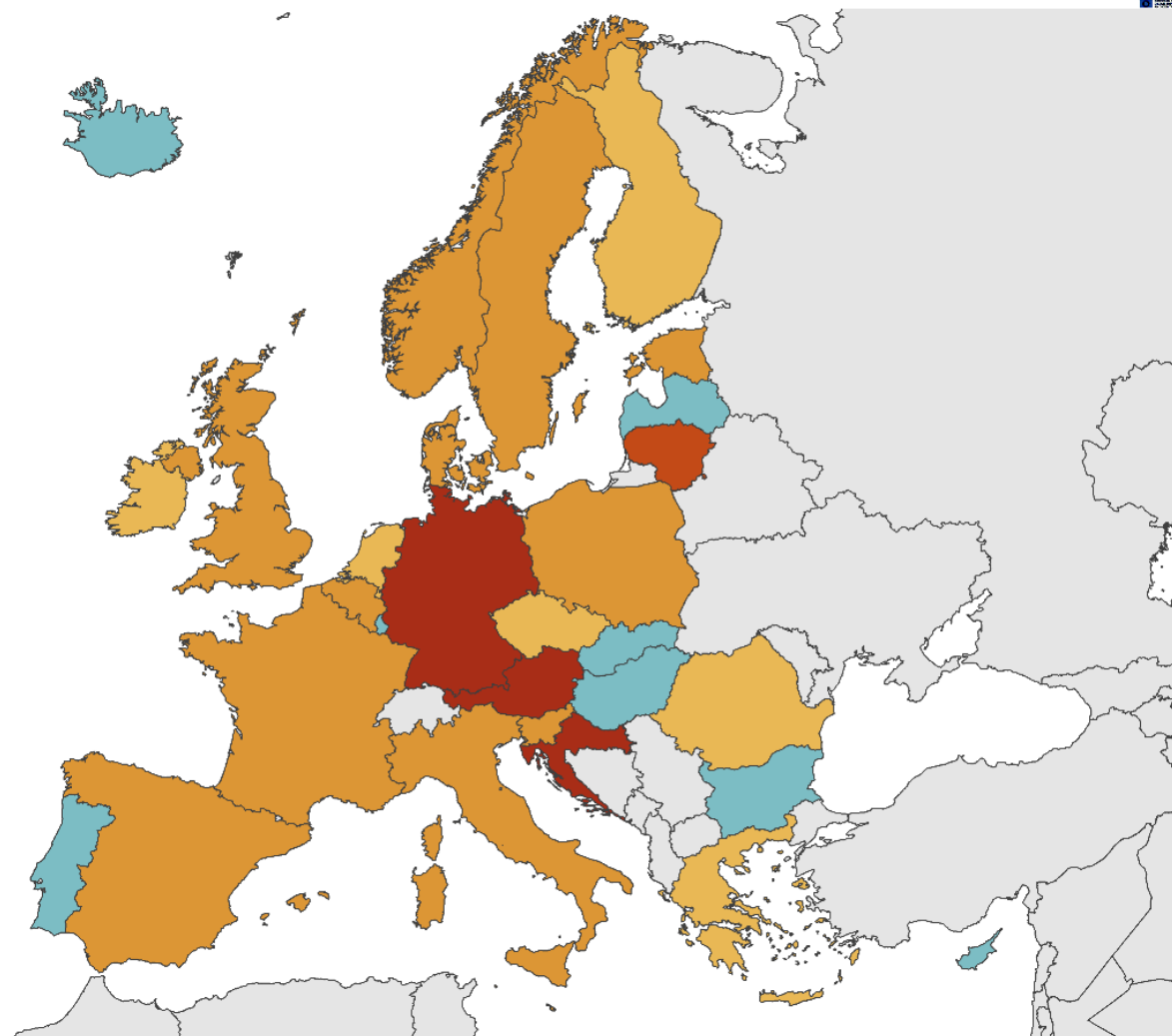
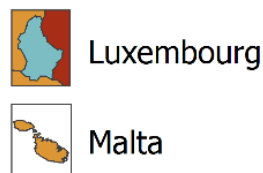
ECDC. Map produced on: 14 Mar 2018  
ECDC map maker: <https://emma.ecdc.europa.eu>

# Measles notification rate per million population by country, 2015, EU/EEA countries (n= 4 000)

Measles notification rate  
during 2015



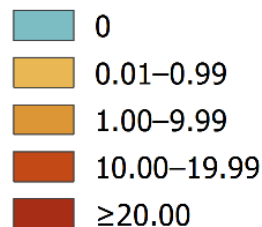
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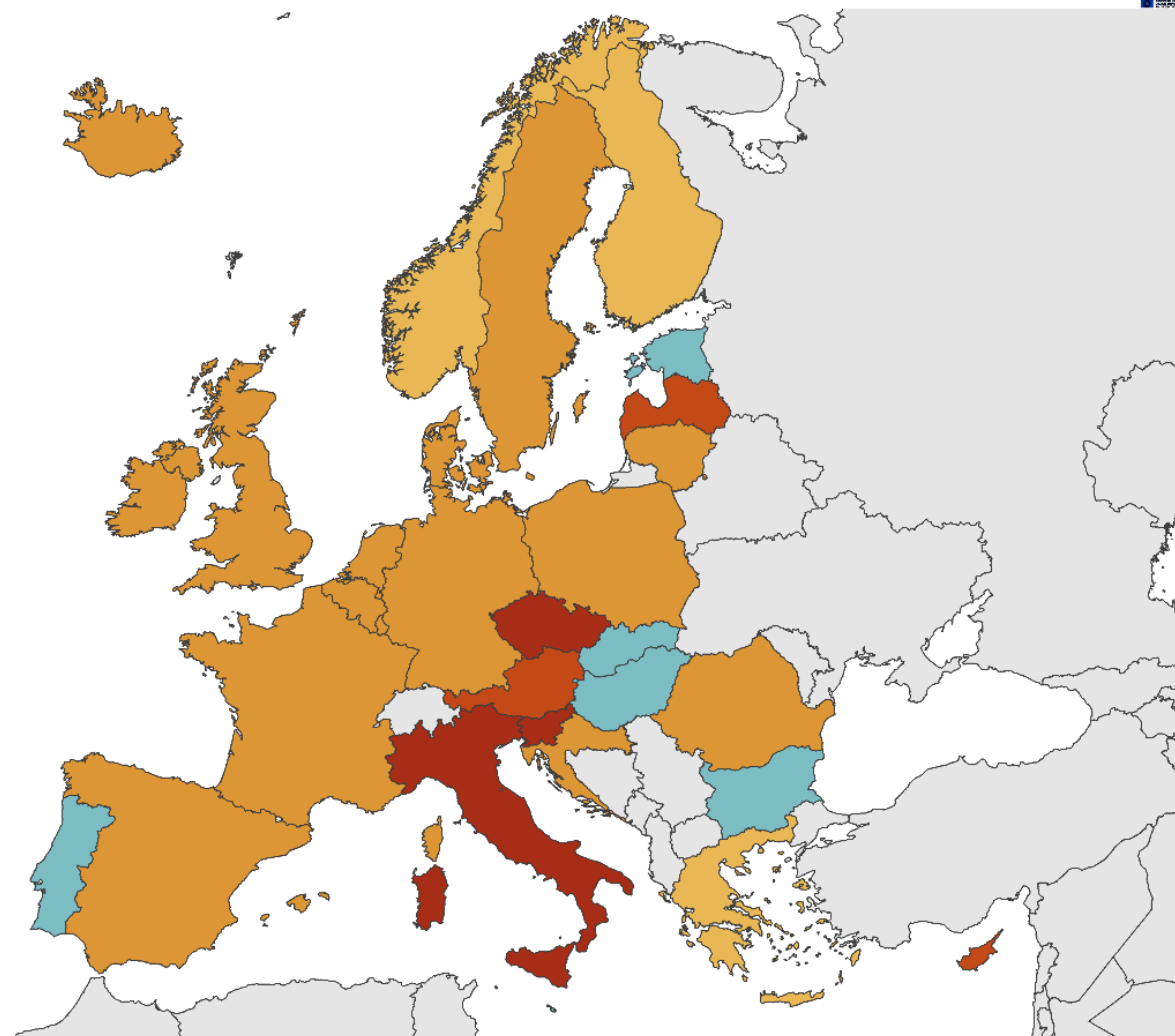
ECDC. Map produced on: 14 Mar 2018  
ECDC map maker: <https://emma.ecdc.europa.eu>

# Measles notification rate per million population by country, 2014, EU/EEA countries (n=3 654)

Measles notification rate  
during 2014



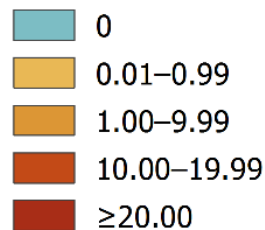
Not included



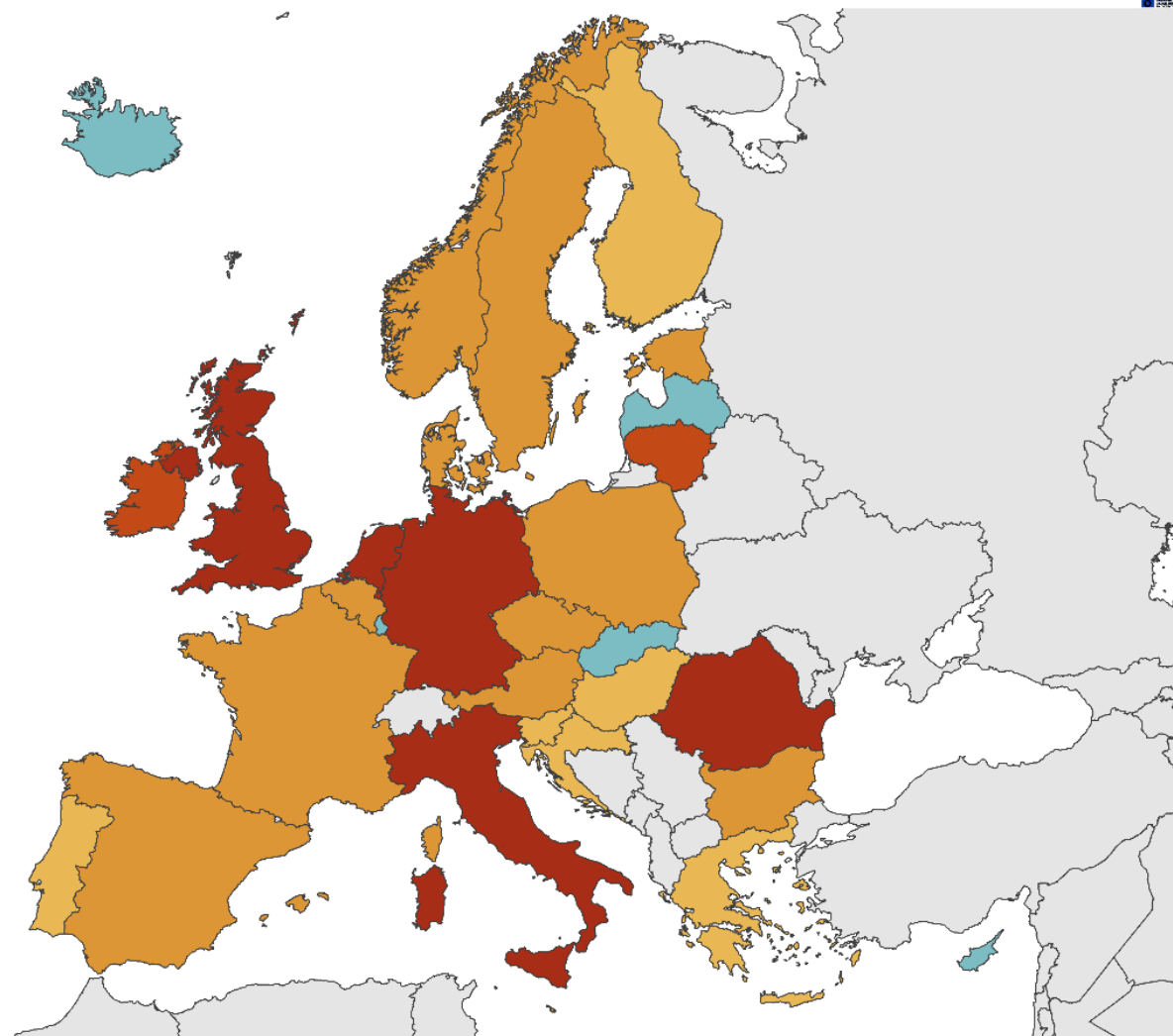
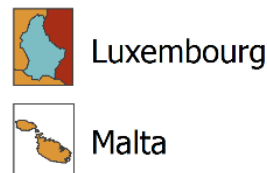
ECDC. Map produced on: 14 Mar 2018  
ECDC map maker: <https://emma.ecdc.europa.eu>

# Measles notification rate per million population by country, 2013, EU/EEA countries (n=10 562)

Measles notification rate  
during 2013



Not included



ECDC. Map produced on: 14 Mar 2018  
ECDC map maker: <https://emma.ecdc.europa.eu>

# Age distribution of measles cases

In 2017

37% of cases were  $< 5$  years

45% of cases were  $\geq 15$  years

In 2016

44% of cases were  $< 5$  years

33% of cases were  $\geq 15$  years

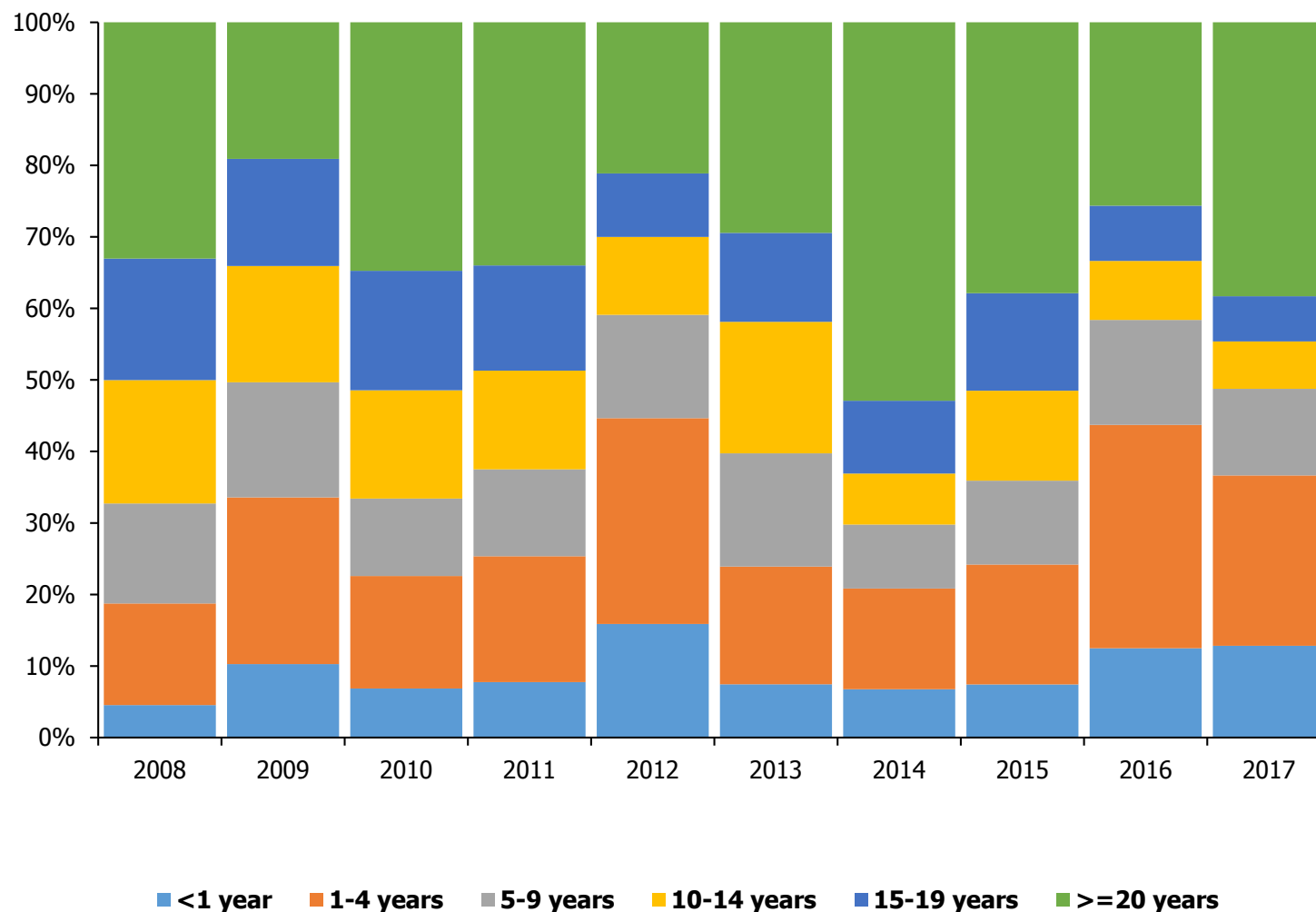
In 2015

24% of cases were  $< 5$  years

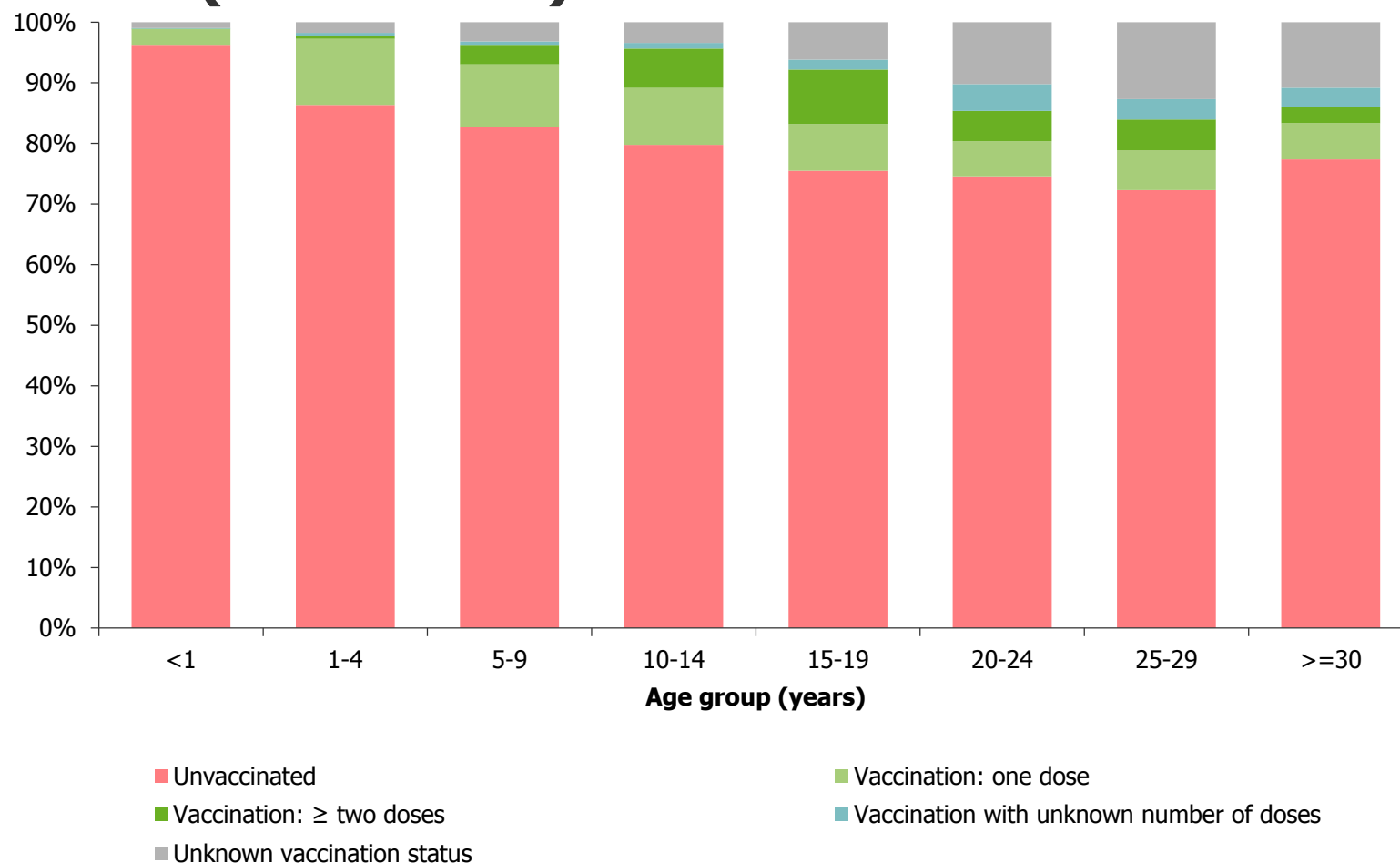
52% of cases were  $\geq 15$  years

**Measles affects all age groups.**

# Age distribution among measles cases by age group and year, 2008 – 2017, EU/EEA countries



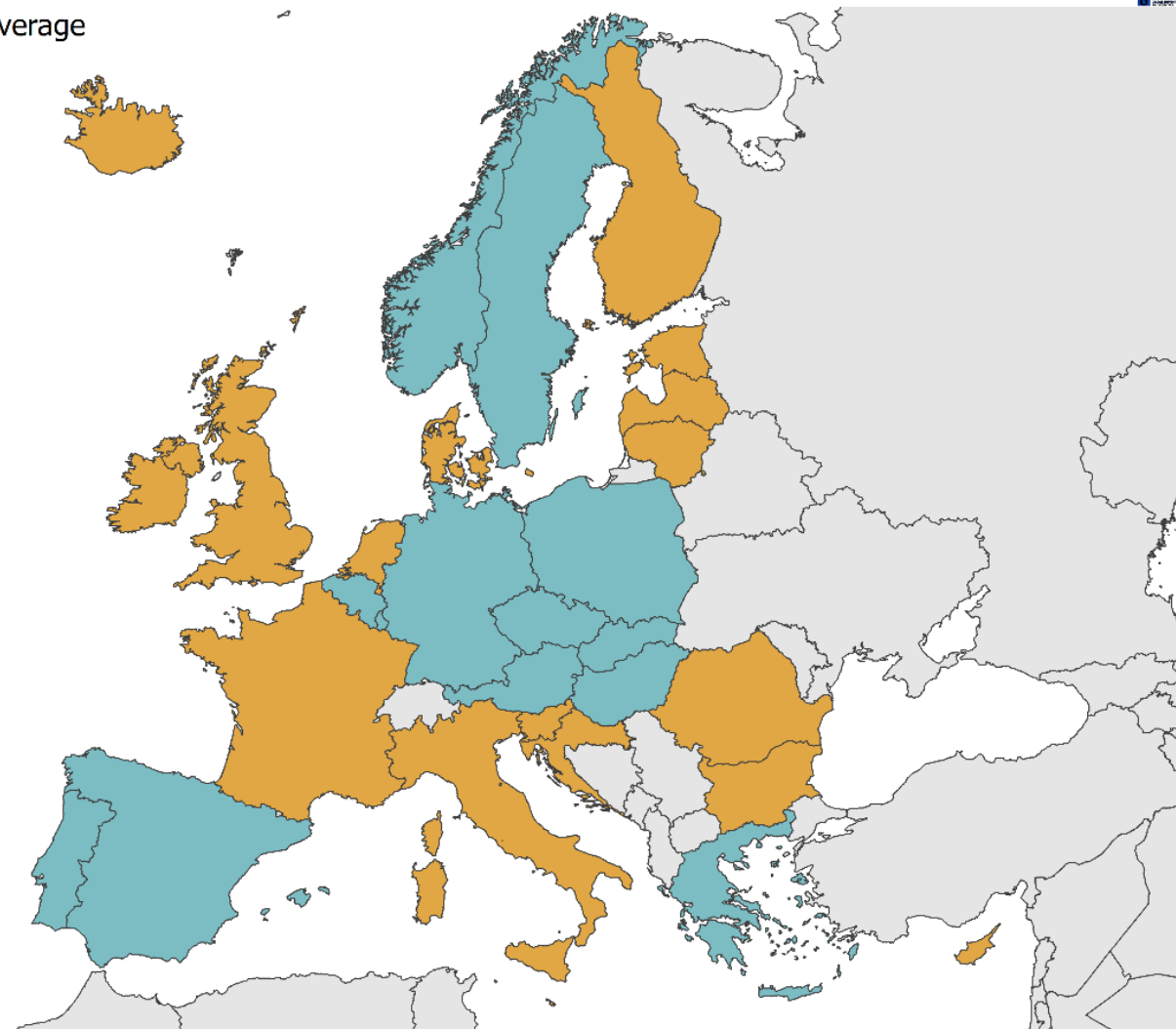
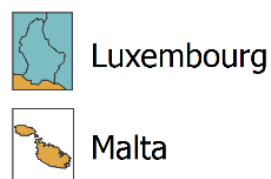
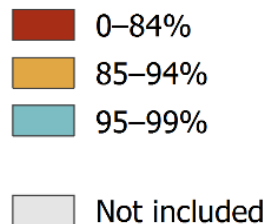
# Percentage distribution of vaccination status among measles cases by age group, 2017, EU/EEA countries (n=14 600\*)



97% measles cases with a known vaccination status were either unvaccinated or had received an inadequate or unknown number of doses to ensure full protection

# Measles vaccine coverage, first dose

Measles containing vaccine coverage  
first dose\*, 2016

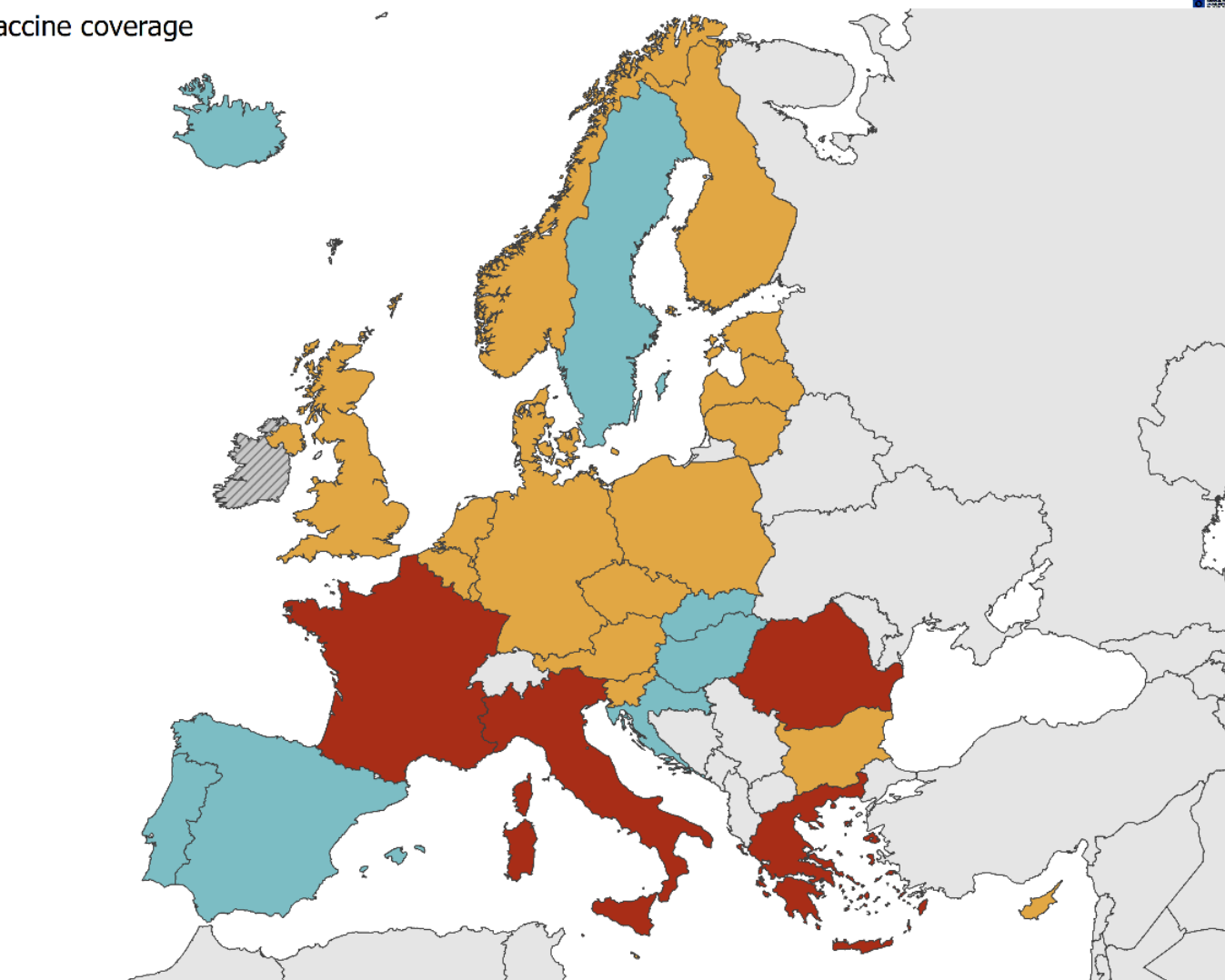
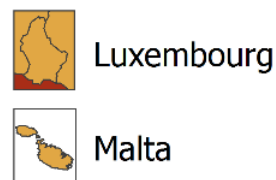
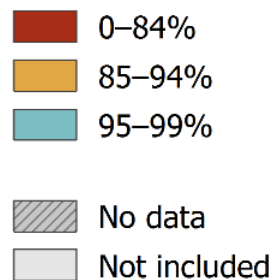


\*WHO, reported estimates

ECDC. Map produced on: 13 Mar 2018  
ECDC map maker: <https://emma.ecdc.europa.eu>

# Measles vaccine coverage, second dose

Measles containing vaccine coverage  
second dose\*, 2016



\*WHO, reported estimates

ECDC. Map produced on: 14 Mar 2018  
ECDC map maker: <https://emma.ecdc.europa.eu>



European Centre for Disease Prevention and Control

# Rubella

European Immunisation Week, 23–29 April 2018

# Rubella surveillance in EU/EEA

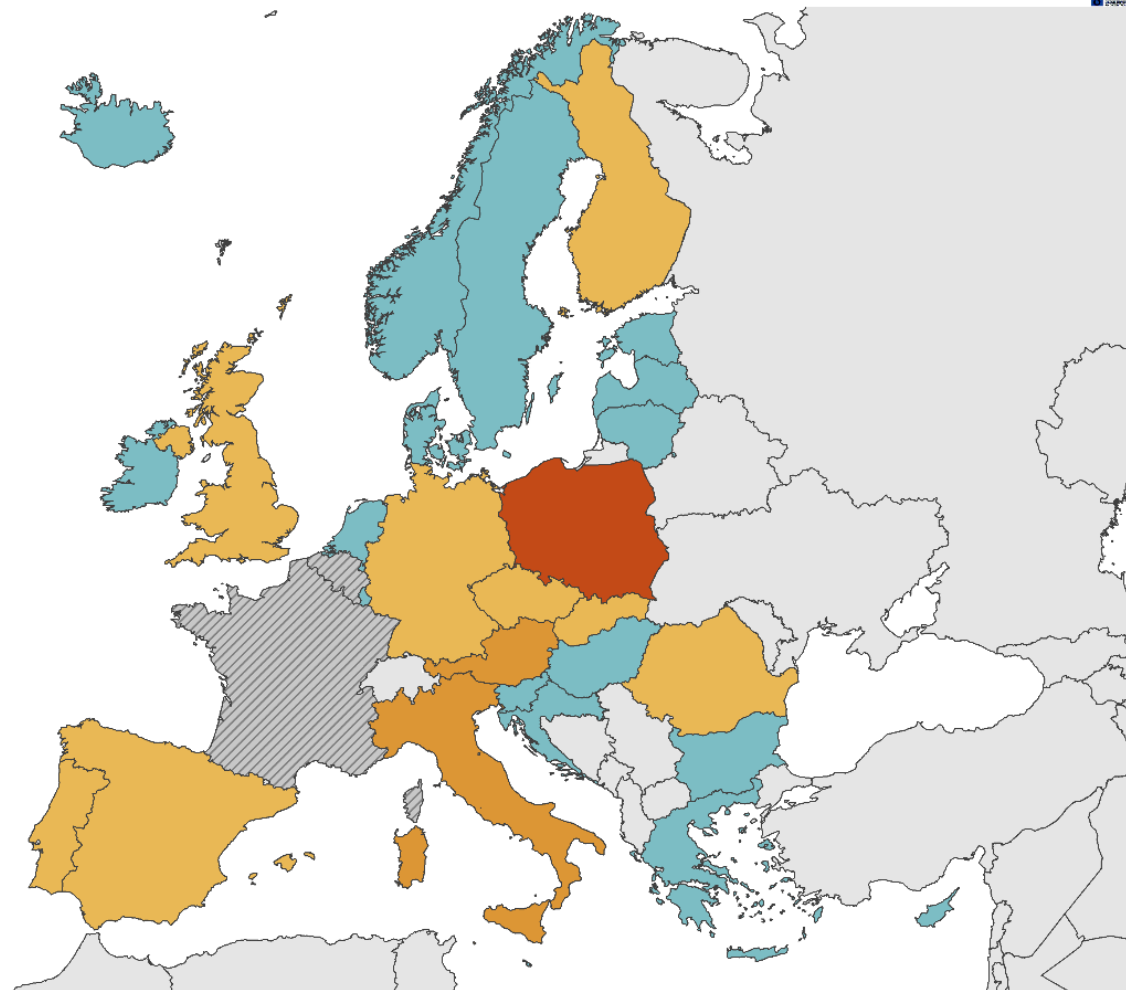
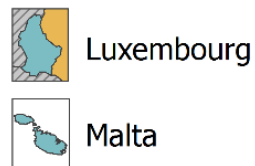
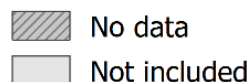
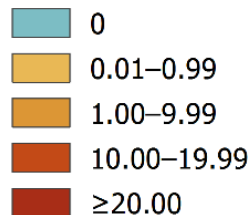
- 28 EU/EEA Member States report rubella surveillance data to ECDC on a monthly basis
- Rubella cases are reported and presented according to the 2012 EU case definition: possible, probable, confirmed cases
- Notification rates were calculated using the most recent population estimates available from Eurostat (2017)

# Number of rubella cases by month and notification rate (cases per million) by country, 2017, EU/EEA countries

Country	2017 Jan	2017 Feb	2017 Mar	2017 Apr	2017 May	2017 Jun	2017 Jul	2017 Aug	2017 Sep	2017 Oct	2017 Nov	2017 Dec	Total cases	Cases per million	Total lab-positive cases
Austria	0	0	24	1	1	0	0	0	0	1	7	5	39	4.49	36
Bulgaria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Croatia	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
Czech Republic	0	0	0	1	1	0	0	0	0	0	0	0	2	0.19	2
Denmark	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
Finland	0	0	0	0	0	0	0	0	0	1	0	0	1	0.18	1
Germany	5	5	8	7	9	9	6	4	4	9	4	3	73	0.89	11
Greece	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
Iceland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Italy	3	8	15	11	12	6	2	1	3	2	2	2	67	1.1	31
Latvia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lithuania	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Luxembourg	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
Netherlands	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
Poland	49	39	44	43	57	45	44	37	31	40	34	33	496	13.06	6
Portugal	0	1	1	0	0	0	0	0	2	0	0	0	4	0.39	0
Romania	1	1	0	1	2	0	1	2	0	0	1	0	9	0.46	6
Slovakia	0	0	0	1	0	0	0	0	0	0	0	0	1	0.18	0
Slovenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	1	0	0	0	0	0	1	0.02	1
Sweden	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	1	0	0	0	0	0	1	1	0	3	0.05	3
<b>Total</b>	<b>58</b>	<b>54</b>	<b>92</b>	<b>66</b>	<b>82</b>	<b>60</b>	<b>54</b>	<b>44</b>	<b>40</b>	<b>54</b>	<b>49</b>	<b>43</b>	<b>696</b>	<b>1.6</b>	<b>97</b>

# Rubella notification rate per million population by country, 2017, EU/EEA countries (n=696)

Rubella notification rate  
during 2017



ECDC. Map produced on: 14 Mar 2018  
ECDC map maker: <https://emma.ecdc.europa.eu>