

SURVEILLANCE REPORT

Measles and rubella monitoring

July 2012

Main developments

The EMMO bulletin changes its name to 'Measles and rubella monitoring' and will, as an ECDC surveillance report, cover enhanced surveillance data and epidemic intelligence information for measles and rubella. Both diseases are targeted for elimination in Europe in 2015, and measles and rubella vaccines are routinely delivered in the form of a measles-mumps-rubella (MMR) vaccine.

Measles

- From 1 January to 31 May 2012, 3 570 cases of measles were reported by the 29 contributing EU and EEA countries.
- In the past 12 months (June 2011 – May 2012) a total of 12 594 cases were reported.
- All 29 countries reported data in the last 12 months, except for Greece, Iceland, Lithuania, Malta and Slovakia, which did not report in the last month.
- France, Romania, Italy and Spain accounted for 79% of the total number of cases.
- The majority of cases were not vaccinated (71%); this proportion includes cases which, according to their age, should have been targeted by vaccination programmes.
- There were no fatal cases in the last 12 months; ten cases of measles acute encephalitis were reported.
- Surveillance data presented in this issue refer to the past 12 months (i.e. not to the calendar year), unless stated otherwise. Caution is advised when comparing data between current and previous EMMO issues as a different format was used earlier.

Rubella

- From 1 January to 31 May 2012, 16 729 cases of rubella were reported by the 25 contributing EU and EEA countries.
- In the past 12 months (June 2011 – May 2012) a total of 22 124 cases were reported.
- Twenty-five countries reported data in the last 12 months, except for Estonia, Greece, Iceland, Malta, which did not report in the last month, and the Netherlands, which did not report in the last three months.
- Poland and Romania accounted for 99% of the total number of cases.

Errata. The following corrections were made on 18 July 2012:

Page 3, Table 1, last column: the value for 'cases per 100 000' is now given to two decimal places.

Page 5, Figure 5: the map was updated; 'May 2011–April 2012' was changed to read 'June 2011–May 2012'.

Page 5, bottom of page: the hyperlink was updated.

Measles

Surveillance data

The enhanced measles surveillance data were retrieved from ECDC’s TESSy database system on 26 June 2012. The analysis covers the 12-month period from 1 June 2011 to 31 May 2012.

Twenty-nine countries reported case-based data for the entire period, while Greece, Iceland, Lithuania, Malta and Slovakia did not report in May 2012.

An overview of the total number of cases and notification rates in the last 12 months is shown in Table 1. The number of cases reported in 2012 is so far much lower than the number of cases reported during the same period in 2011 (Figure 1).

In the last 12 months, the highest notification rate was among infants under one year (26.4 cases per 100 000 population), followed by children aged between one and four years (13.4 cases per 100 000 population); see Figure 2.

Vaccination status was known for 86% (10 803) of the reported cases. Of these, 71% (8 921) cases were unvaccinated, 11% (1 372) had received one dose of measles vaccine, 3% (425) had received two or more doses, and 1% (85) had received an unknown number of doses. The proportion of unvaccinated was high across all groups, including those targeted by vaccination programmes (Figure 5).

There were no fatal cases in the last 12 month period; ten cases of measles acute encephalitis were reported.

Figure 1. Number of measles cases in 2011 and 2012 and number of countries reporting in 2012 (by month)

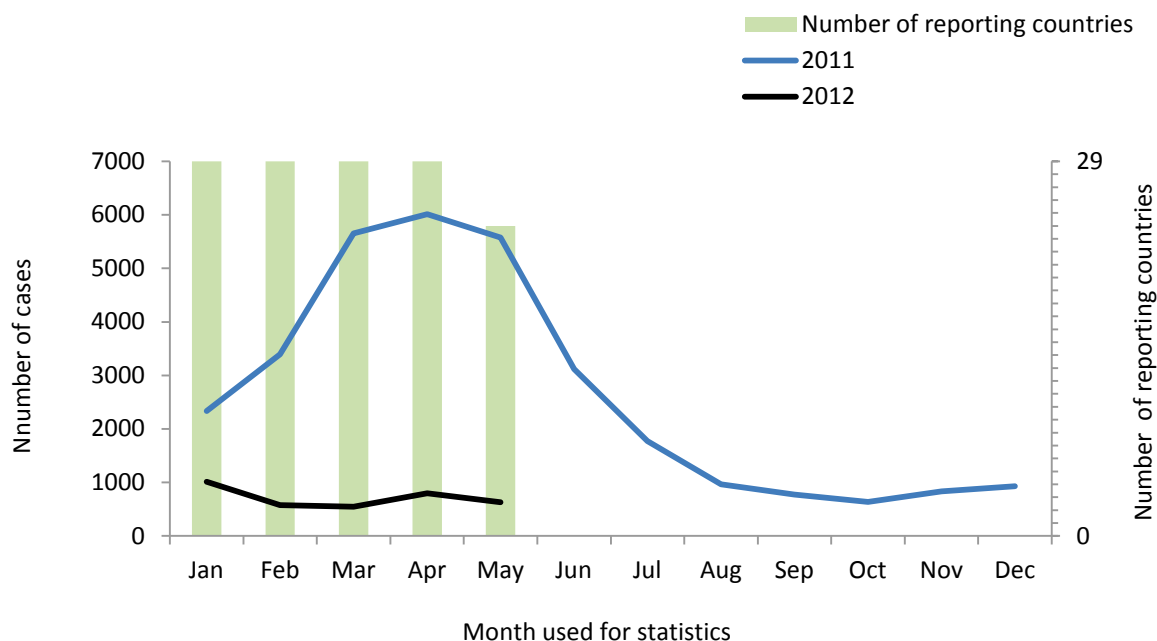


Table 1. Number of measles cases by month and notifications rates (cases per 100 000) in the last 12 months (June 2011–May 2012), EU/EEA countries

Country	2011							2012					Total cases	Cases per 100 000
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May		
Austria	33	16	4	2	0	0	0	0	0	0	0	0	55	0.65
Belgium	92	43	9	10	3	12	2	7	6	2	8	3	197	1.82
Bulgaria	1	0	0	1	0	1	0	0	0	0	0	0	3	0.04
Cyprus	0	0	0	0	0	0	0	0	1	0	0	0	1	0.12
Czech Republic	0	1	3	0	0	0	1	3	2	0	2	7	19	0.18
Denmark	0	2	0	0	0	0	0	1	0	0	0	0	3	0.05
Estonia	1	0	0	0	0	0	0	0	0	0	2	1	4	0.30
Finland	1	0	5	2	0	0	0	1	0	0	3	0	12	0.22
France	907	395	141	80	71	100	126	106	122	140	110	96	2394	3.68
Germany	237	119	57	22	16	21	7	4	18	7	20	51	579	0.71
Greece	2	0	3	0	0	0	0	0	0	0	0	nr	5	0.04
Hungary	0	0	0	0	0	0	5	0	1	0	1	0	7	0.07
Iceland	0	0	0	0	0	0	0	0	0	0	0	nr	0	0.00
Ireland	34	34	60	61	27	15	3	4	7	6	6	59	316	7.05
Italy	849	416	176	99	61	56	54	58	117	79	68	2	2035	3.36
Latvia	0	0	1	0	0	0	0	0	2	1	0	0	4	0.18
Lithuania	4	0	0	0	0	0	0	0	0	0	2	nr	6	0.18
Luxembourg	1	0	1	1	0	0	0	0	0	1	0	0	4	0.78
Malta	0	0	1	1	0	0	0	0	0	0	0	nr	2	0.48
Netherlands	5	0	1	0	0	0	0	0	0	1	4	0	11	0.07
Norway	5	1	1	2	1	0	0	0	0	0	1	0	11	0.22
Poland	5	1	10	5	1	0	0	1	1	1	13	12	50	0.13
Portugal	0	0	0	0	0	0	1	1	0	0	1	4	7	0.07
Romania	455	377	286	247	214	357	592	729	110	85	317	186	3955	18.43
Slovakia	1	0	0	0	0	0	0	0	0	0	0	nr	1	0.02
Slovenia	7	12	0	0	0	0	0	1	0	1	0	0	21	1.02
Spain	345	248	146	185	168	203	108	59	66	72	47	37	1684	3.65
Sweden	1	2	1	0	0	4	0	2	14	4	4	1	33	0.35
United Kingdom	133	105	60	54	73	63	29	39	109	148	189	173	1175	1.88
Total	3119	1772	966	772	635	832	928	1016	576	548	798	632	12594	2.48

nr: data not reported

Notification rates were calculated using the most recent population estimates available from Eurostat (2011).

Countries with a notification rate ≥ 1.0 per 100 000 population are highlighted in green.

For countries that reported data for all 12 months, notification rates might be underestimated.

All confirmed, probable, possible or unknown cases defined by EU 2008 case definitions are included.

For tables relating to the number of measles cases in previous years, see:

http://ecdc.europa.eu/EN/HEALTHTOPICS/MEASLES/EPIDEMIOLOGICAL_DATA/Pages/annual_epidemiological_reports.aspx

Figure 2. Measles notification rates (cases per 100 000) by age group in the last 12 months (June 2011–May 2012), EU/EEA countries (n=12 428 cases with known age)

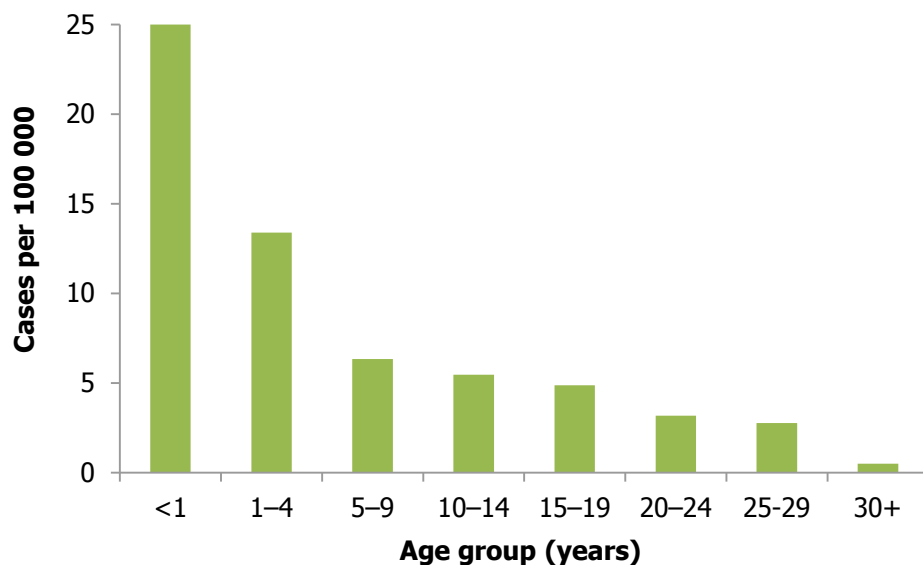


Figure 3. Proportion of vaccination status among measles cases by age group in the last 12 months (June 2011–May 2012), EU/EEA countries (n=12 428 cases with known age)

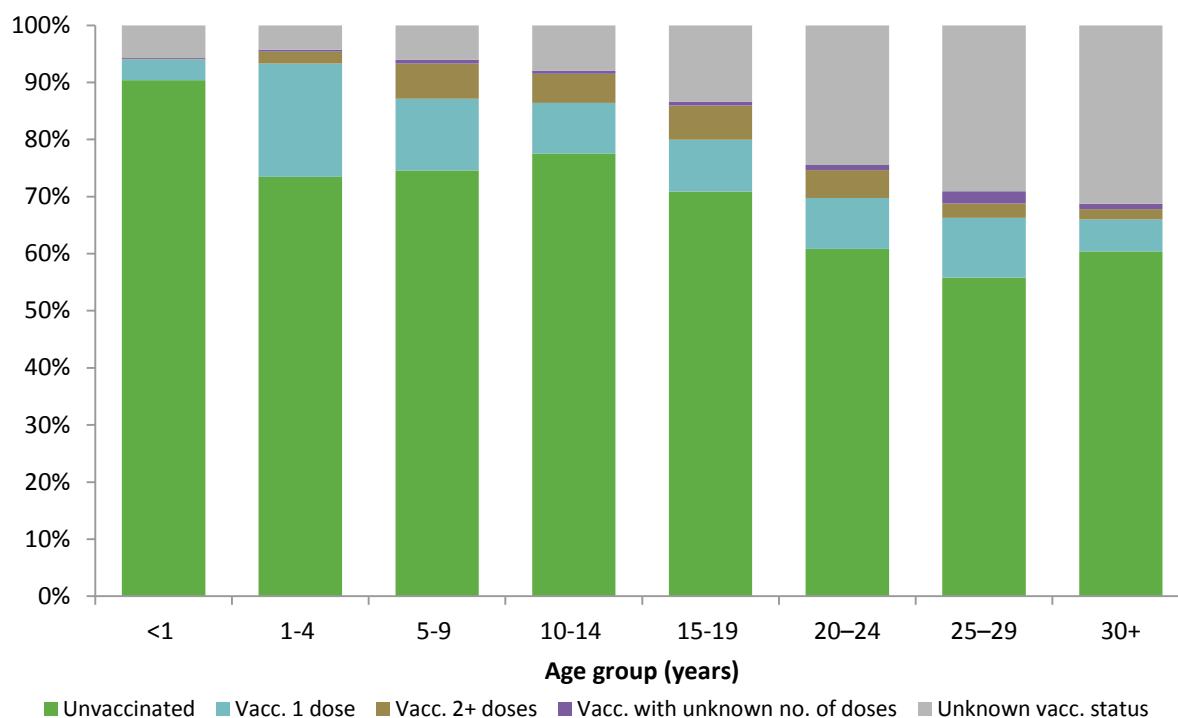
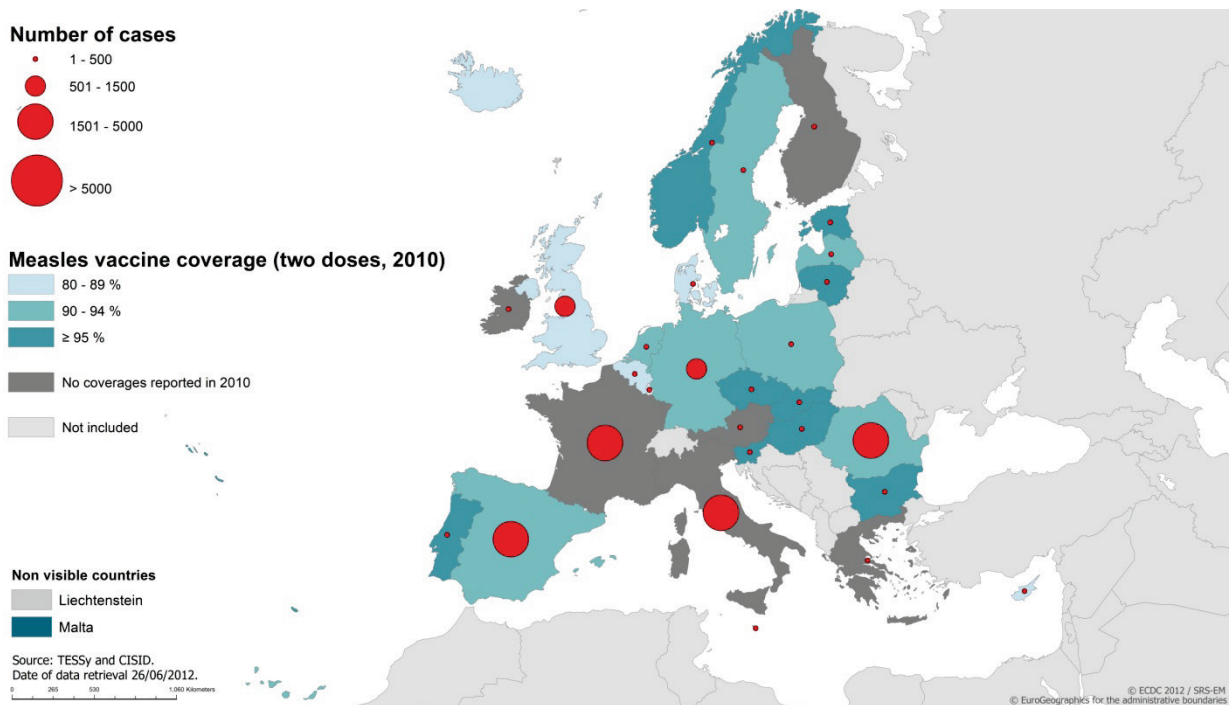
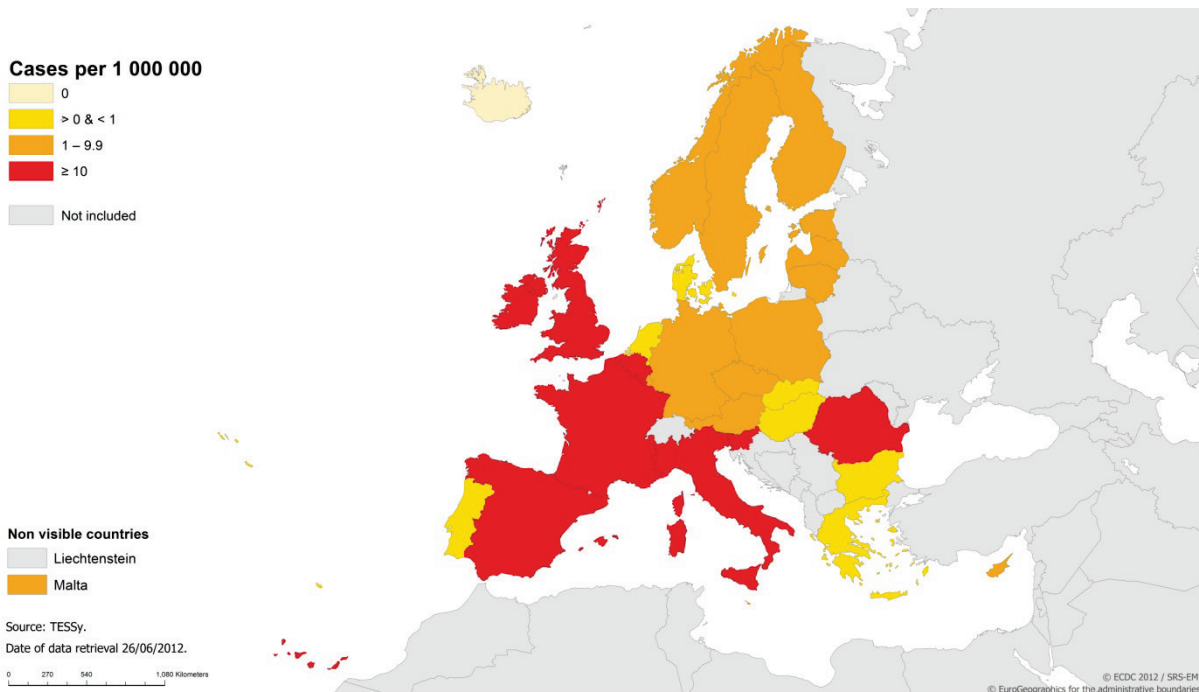


Figure 4. Number of measles cases by country in the last 12 months (June 2011–May 2012 n=12 594) and two-dose measles vaccine coverage* (2010 CISID) EU/EEA countries



* Coverage numbers (%) are official national figures reported via the annual WHO/UNICEF Joint Reporting Form and WHO Regional Office for Europe reports.

Figure 5. Measles notification rates (cases per 1 000 000) by country in the last 12 months (June 2011–May 2012), EU/EEA countries (n=12 594)



For maps relating to measles cases and notification rates in 2011, see:

http://ecdc.europa.eu/EN/HEALTHTOPICS/MEASLES/EPIDEMIOLOGICAL_DATA/Pages/annual_epidemiological_reports.aspx

Epidemic intelligence

European Union Member States

The peak transmission period for measles in Europe will soon come to an end. The number of new cases and the cumulative number of cases have so far been considerably lower in 2012 compared with 2010 and 2011. There have been no major new outbreaks or unexpected developments since the previous EMMO.

Poland

Source: Polish authorities

As of 15 June, 36 cases of measles have been reported in Poland since the beginning of 2012. Last year during the same period, 19 cases were reported. Some of the cases were part of an outbreak among ethnic Roma in Wrocław.

UK

Source: various media

In Merseyside County, 301 laboratory-confirmed cases were reported since the start of the year, including 42 in neighbouring Knowsley. This represents the most widespread outbreak of the disease in the area since the 1980s. An additional 148 probable cases are under investigation.

EU neighbouring countries

Ukraine

Source: ministry of health

As of 30 June, Ukraine has reported 11 231 measles cases since the start of 2012. According to an official report, the incidence of measles in Ukraine has decreased by two thirds compared with the winter-spring period. The officially reported vaccine uptake is low in Ukraine, and the country has experienced shortages of MMR vaccine in the last years.

Israel

Source: various media

There has been an increase in measles cases in northern Israel. As of the end of May 2012, 96 cases of measles were notified compared with four cases in the same period in 2011, 14 in 2010, and two in 2009. Vaccination catch-up campaigns were implemented.

Rubella

Surveillance data

Data for enhanced rubella surveillance was retrieved from ECDC's TESSy database system on 26 June 2012; the analysis covers the 12-month period from 1 June 2011 to 31 May 2012.

Twenty-five countries reported case-based data for the entire period, except for Estonia, Greece, Iceland, and Malta, which did not report in the last month, and the Netherlands, which did not report in the last three months.

An overview of the total number of cases and notification rates in the last 12 months is shown in Table 2. Poland and Romania accounted for 99% of the cases.

Table 2. Number of rubella cases, by month, and notifications rates (cases per 100 000) in the last 12 months (June 2011–May 2012), EU and EEA countries

Country	2011							2012					Total cases	Cases per 100 000
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May		
Austria	0	1	0	0	1	0	0	0	0	0	0	0	2	0.02
Belgium	nr	nr	nr	nr	nr	nr	nr	nr	nr	Nr	nr	nr	nr	-
Bulgaria	3	3	0	2	0	1	1	1	2	4	1	2	20	0.27
Cyprus	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Czech Republic	7	2	0	0	0	2	0	2	0	2	1	0	16	0.2
Denmark	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	nr	0	0
Finland	0	0	0	0	1	0	0	0	0	0	0	0	1	0.02
France	nr	nr	nr	nr	nr	nr	nr	nr	nr	Nr	nr	nr	nr	-
Germany	nr	nr	nr	nr	nr	nr	nr	nr	nr	Nr	nr	nr	nr	-
Greece	0	0	0	0	0	0	0	0	0	0	0	nr	0	0
Hungary	0	0	0	0	0	1	0	0	1	1	4	0	7	0.07
Iceland	0	0	0	0	0	0	0	0	0	0	0	nr	0	0
Ireland	0	0	0	0	0	0	0	0	0	3	0	6	9	0.20
Italy	nr	nr	nr	nr	nr	nr	nr	nr	nr	Nr	nr	nr	nr	-
Latvia	0	0	0	0	1	0	0	0	0	0	0	3	4	0.18
Lithuania	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Luxembourg	0	0	0	0	0	0	0	0	0	1	0	0	1	0.20
Malta	0	0	0	0	0	0	0	0	0	0	0	nr	0	0
Netherlands	0	0	0	0	0	0	0	0	0	Nr	nr	nr	0	0
Norway	0	0	0	0	0	0	0	0	1	0	0	0	1	0.02
Poland	377	264	154	162	160	205	186	174	279	695	1071	1027	4754	12.4
Portugal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Romania	6	13	9	45	276	1595	1905	850	4054	5698	1874	899	17224	80.3
Slovakia	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
Spain	0	1	0	1	1	0	2	4	2	4	6	3	24	0.05
Sweden	1	0	0	0	2	1	0	0	0	0	1	2	7	0.07
United Kingdom	0	1	2	0	0	0	0	3	19	17	9	3	54	0.09
Total	394	285	165	210	442	1805	2094	1034	4358	6425	2967	1945	22124	4.36

nr: data not reported.

Notification rates were calculated using the most recent population estimates available from Eurostat (2011).

Countries with a notification rate ≥ 1.0 per 100 000 population are highlighted in green.

For countries that reported data for all 12 months, notification rates might be underestimated.

All confirmed, probable, possible or unknown cases defined by EU 2008 case definitions are included.

For tables relating to number of rubella cases in previous years, see:

<http://ecdc.europa.eu/en/activities/surveillance/euvac/data/Pages/status-rubella-reporting.aspx>

Useful links

More information about measles and rubella is available on the ECDC website:

<http://ecdc.europa.eu/en/healthtopics/measles/Pages/index.aspx>

<http://ecdc.europa.eu/EN/HEALTHTOPICS/RUBELLA/Pages/index.aspx>

Information about vaccines and immunisation from the World Health Organization's Regional Office for Europe:

[http://www.euro.who.int/en/what we do/health topics/communicable diseases/measles and rubella](http://www.euro.who.int/en/what%20we%20do/health%20topics/communicable%20diseases/measles%20and%20rubella)

Website of the WHO CISID database: <http://data.euro.who.int/cisid/>

More information on the surveillance of vaccine-preventable diseases in the European Union is available from the [EUVAC-Net](#) website.

Notes

- The European Surveillance System (TESSy) reports 'date used for statistics', which is a date chosen by the country for reporting purposes. Such date may indicate onset of disease, date of diagnosis, date of notification, or date of laboratory confirmation.
- Countries report on measles, rubella and other vaccine-preventable diseases to TESSy at their own convenience. This means that the date of retrieval can influence the data presented in this report. For this reason, the date of data retrieval is indicated for each issue. For this issue, measles and rubella data were retrieved on 26 June 2012. Later retrievals of data may result in slightly different numbers as countries have the possibility to update data in TESSy retrospectively.