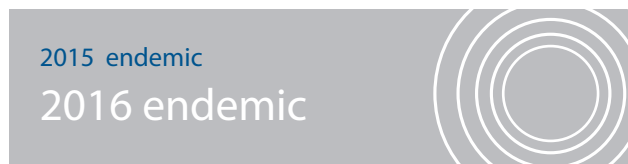


# Measles and rubella elimination country profile

## Romania

### Measles elimination status



Source: European Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report: [www.euro.who.int/6thRVC](http://www.euro.who.int/6thRVC)

### Rubella elimination status



Source: European Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report: [www.euro.who.int/6thRVC](http://www.euro.who.int/6thRVC)

### National plan of action



Source: Measles and rubella elimination Annual Status Update report, 2016  
ND= Data not available

### Demographic information, 2016

Total population	19 372 734
< 1 year old	177 469
< 5 years old	887 025

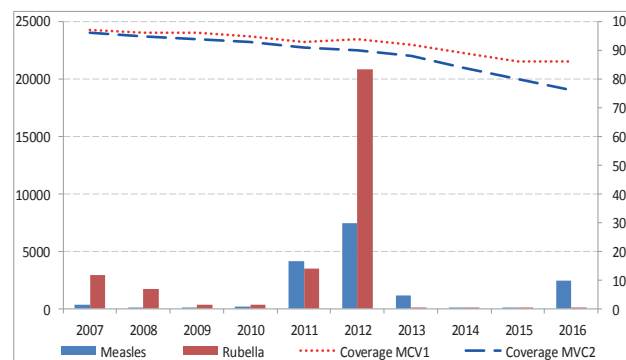
Source: World Population Prospects: The 2015 Revision, New York, United Nations

### Measles and rubella immunization schedule, 2016

	Vaccine	Schedule	Year of introduction	
MCV1	MMR	12 months	MCV2	1979
MCV2	MMR	5 years	RCV	2002
Measles vaccination in school				No

Source: Immunization schedule, WHO, Data and Statistics, Immunization Monitoring and Surveillance ([http://www.who.int/immunization/monitoring\\_surveillance/data/en/](http://www.who.int/immunization/monitoring_surveillance/data/en/))  
MMR = measles-mumps-rubella-containing vaccine; MCV1 = first dose measles-containing vaccine; MCV2 = second dose measles-containing vaccine; RCV = rubella-containing vaccine

### Measles and rubella cases and immunization coverage, 2007–2016



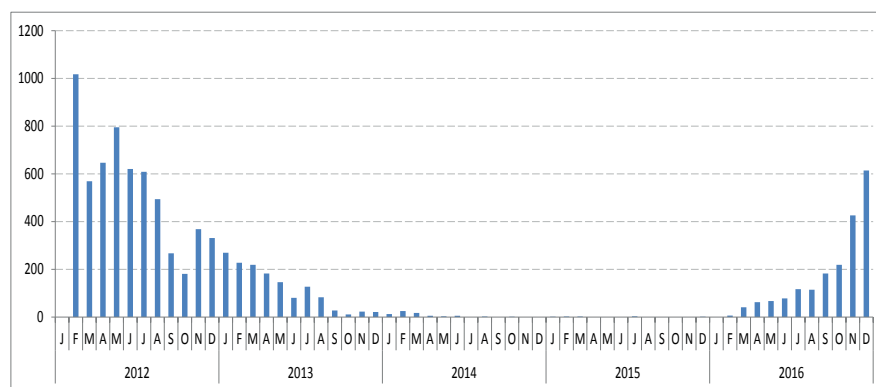
Source: Disease incidence and immunization coverage, WHO, Data and Statistics, Immunization Monitoring and Surveillance ([http://www.who.int/immunization/monitoring\\_surveillance/data/en/](http://www.who.int/immunization/monitoring_surveillance/data/en/))  
MCV1 = first dose of measles-containing vaccine  
MCV2 = second dose of measles-containing vaccine

### Definition used for an outbreak



Source: Measles and rubella elimination Annual Status Update report, 2016

### Confirmed measles cases by month of onset, 2012-2016



Source: CISID2 2016



# Measles and rubella elimination country profile

## Romania

### Measles cases by first subnational level, 2016



Source: Measles and rubella elimination Annual Status Update report, 2016

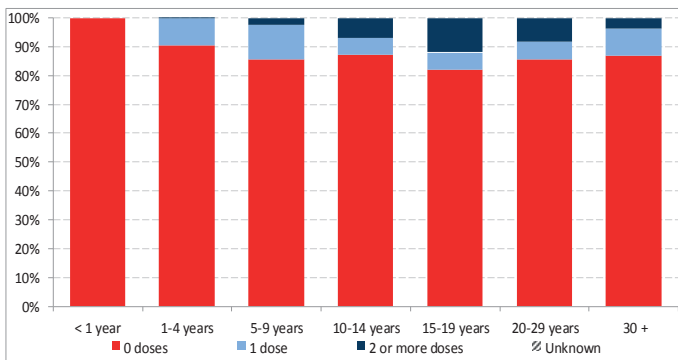
### Measles genotypes by first subnational level, 2016



Source: MeaNS 2016

Note: The dots in the maps are placed randomly within the administrative regions  
Map disclaimer: The boundaries and names shown and the designations used on the maps do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

### Measles cases by age group and vaccination status, 2016



Source: Measles and rubella elimination Annual Status Update report, 2016

### Sources of infection, 2016

	Measles	Rubella
Imported	0	0
Import-related	3	0
Unknown/ Not reported	0	0
Endemic	2432	13

Source: Measles and rubella elimination Annual Status Update report, 2016

### Supplementary immunization activities

Year	Target age	Vaccine used	% Coverage
2016	9 months - 9 years	MMR	46%
2016	1 - 15 years	MMR	ND

Source: Supplementary immunization activities, WHO, Data and Statistics, Immunization Monitoring and Surveillance ([http://www.who.int/immunization/monitoring\\_surveillance/data/en/](http://www.who.int/immunization/monitoring_surveillance/data/en/))  
ND=Data not available; MMR = measles-mumps-rubella vaccine

### Information on CRS, 2016



Source: Measles and rubella elimination Annual Status Update report, 2016  
CRS = congenital rubella syndrome

# Measles and rubella elimination country profile

## Romania

### Measles incidence, epidemiologic and virologic characteristics, 2012-2016

	Suspected measles cases	Confirmed measles cases				Discarded as non-measles	Measles incidence	Genotypes detected
		Laboratory	Epi-linked	Clinically	Total			
2012	ND	3 918	3 390	142	7 450	ND	347.6	D4,D8
2013	1 391	884	247	28	1 159	281	53.5	D4,D8
2014	164	49	3	7	59	106	2.8	ND
2015	55	4	0	3	7	48	0.3	B3
2016	2 493	1 363	1 058	14	2 435	65	123.2	B3

Source: Measles and rubella elimination Annual Status Update report, 2012-2016  
Incidence calculated per 1 million population  
ND = Data not available; NA= Not applicable

### Measles surveillance and laboratory performance indicators, 2012-2016

	Discarded non-measles rate	% 1st sub-national unit with ≥ 2 discarded cases	% cases with adequate laboratory investigation	% origin of infection known	# specimen tested for measles	% positive for measles	Rate of viral detection	% WHO and proficient labs
2012	18.3	ND	56.7%	100%	ND	ND	ND	100%
2013	1.2	40.5%	80.2%	100%	ND	ND	76.7%	100%
2014	0.5	14.3%	14.3%	88.1%	133	27.8%	0	100%
2015	0.3	0%	94.5%	100%	52	7.7%	0	100%
2016	0.3	0%	57%	ND	1 572	85.4%	72.5%	100%

Source: ASU 2012-2016, MeaNS 2012-2016 and laboratory accreditation results 2012-2016, and internal communication from country ND = Data not available; NA= Not applicable  
A proficient laboratory is WHO accredited and/or has an established quality assurance programme with oversight by a WHO accredited laboratory

### Rubella incidence, epidemiologic and virologic characteristics, 2012-2016

	Suspected rubella cases	Confirmed measles cases				Discarded as non-rubella	Rubella incidence	Genotypes detected
		Laboratory	Epi-linked	Clinically	Total			
2012	ND	5 599	15 213	0	20 812	ND	974.6	2B
2013	461	105	11	29	145	334	6.6	ND
2014	182	22	1	7	30	158	1.4	ND
2015	108	0	0	8	8	100	0.4	ND
2016	229	12	0	1	13	218	0.7	ND

Source: Measles and rubella elimination Annual Status Update report, 2012-2016, and internal communication from country ND = Data not available; NA= Not applicable

### Rubella surveillance and laboratory performance indicators, 2012-2016

	Discarded non-rubella rate	% 1st sub-national unit with ≥ 2 discarded cases	% cases with adequate laboratory investigation	% origin of infection known	# specimen tested for rubella	% positive for rubella	Rate of viral detection	% WHO and proficient labs
2012	ND	ND	ND	ND	ND	ND	ND	100%
2013	1.3	40.5%	91.3%	100%	ND	ND	33.3%	100%
2014	0.7	25%	95.6%	0	190	7.4%	0	100%
2015	0.5	11.9%	92.5%	0	100	0%	0	100%
2016	1.1	14.3%	93.4%	ND	226	5.3%	ND	100%

Source: ASU 2012-2016, RubeNS 2012-2016 and laboratory accreditation results 2012-2016, and internal communication from country ND = Data not available; NA= Not applicable  
A proficient laboratory is WHO accredited and/or has an established quality assurance programme with oversight by a WHO accredited laboratory

### RVC comments, based on 2016 reporting

The Regional Verification Commission for Measles and Rubella Elimination (RVC) acknowledges the efforts being made to improve vaccination coverage in Romania, particularly in vulnerable communities, and recognizes that efforts are challenged by the current political climate. The proposed new legislation on immunization is expected to go some way towards mitigation of current challenges to achieve high universal vaccination coverage, but other, innovative, measures will probably also be required. The RVC believes that in order to end the current measles outbreak, greater efforts are needed to increase the vaccination coverage in infants and children aged 9 months to 5 years by strengthening supplementary immunization activities. The RVC urges the health authorities and public health system to strengthen measles and rubella surveillance and to improve its quality, including improving the rate of viral detection of rubella.

Source: Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report ([www.euro.who.int/6thRVC](http://www.euro.who.int/6thRVC))

### Surveillance performance indicators and targets

- Rate of discarded cases: at least 2 discarded measles or rubella cases per 100 000 population
- % cases with adequate laboratory investigation: ≥ 80%
- % origin of infection known: ≥ 80%
- Rate of viral detection: ≥ 80%