

Measles and rubella elimination country profile

Italy

Measles elimination status



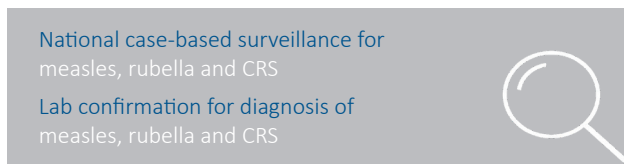
Source: European Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report: www.euro.who.int/7thrv

Rubella elimination status



Source: European Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report: www.euro.who.int/7thrv

Measles and rubella surveillance



Source: WHO/UNICEF Joint Reporting Form on Immunization, 2017

Demographic information, 2017

Total population	59 359 900
< 1 year old	470 983
< 5 years old	2 447 617

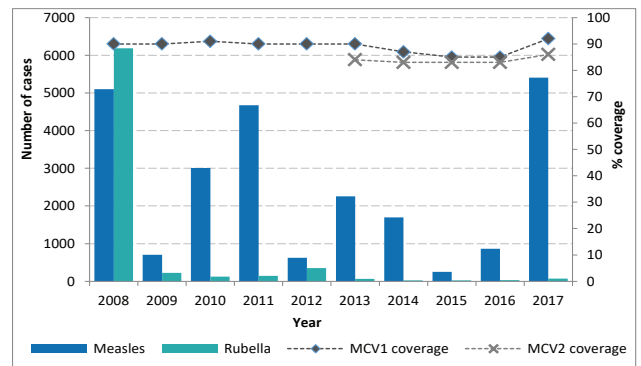
Source: World Population Prospects: The 2017 Revision, New York, United Nations

Measles and rubella immunization schedule, 2017

	Vaccine	Schedule	Year of introduction	
MCV1	MMR	12-15 months	MCV2	2004
MCV2	MMR	5-6 years	RCV	1972
Measles vaccination in school				No

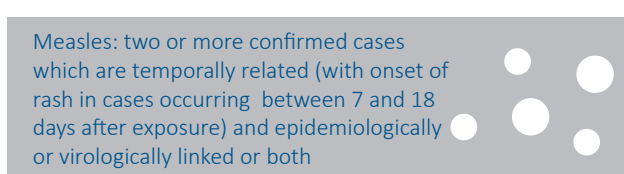
Source: Immunization schedule, WHO, Data and Statistics, Immunization Monitoring and Surveillance (http://www.who.int/immunization/monitoring_surveillance/data/en/) and communication with the country
MMR = measles-mumps-rubella vaccine; MCV1 = first dose measles-containing vaccine; MCV2 = second dose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

Measles and rubella cases and immunization coverage, 2008–2017



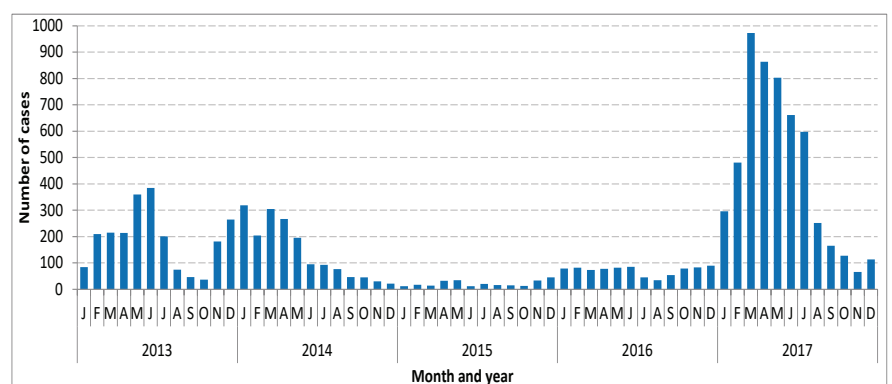
Source: Disease incidence and immunization coverage (WUENIC), WHO, Data and Statistics, Immunization Monitoring and Surveillance and communication with the country (http://www.who.int/immunization/monitoring_surveillance/data/en/)
MCV1 = first dose of measles-containing vaccine
MCV2 = second dose of measles-containing vaccine

Definition used for an outbreak



Source: Measles and rubella elimination Annual Status Update report, 2017

Confirmed measles cases by month of onset, 2013-2017



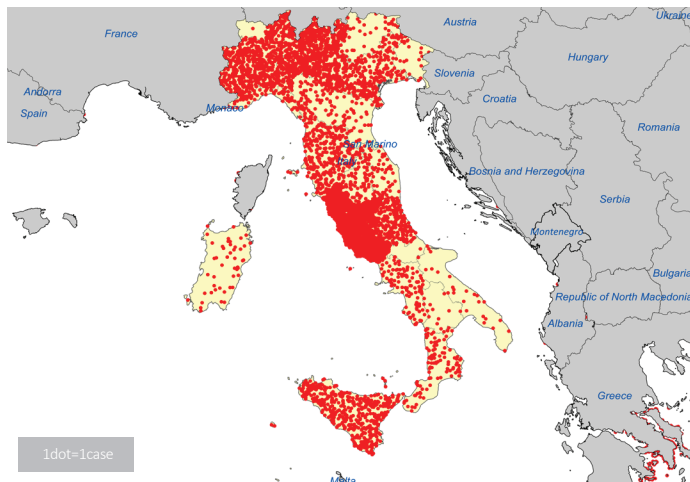
Source: CISD 2017 and communication with the country



Measles and rubella elimination country profile

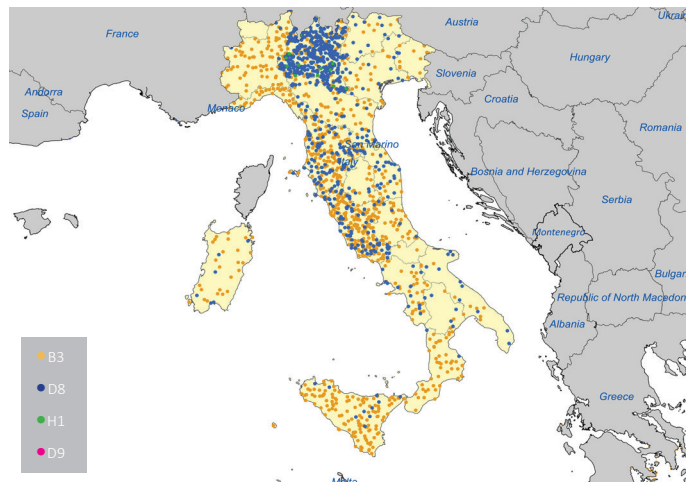
Italy

Measles cases by first subnational level, 2017



Source: Measles and rubella elimination Annual Status Update report, 2017

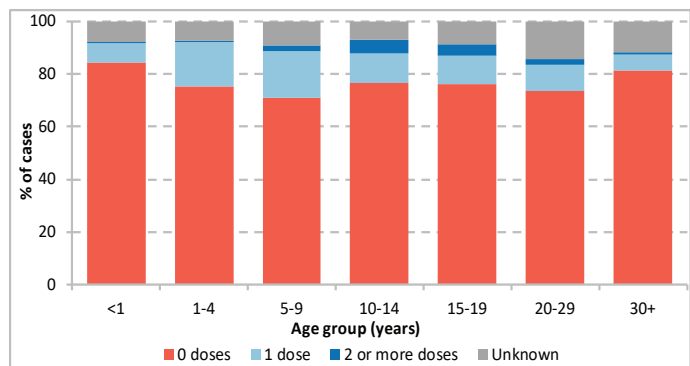
Measles genotypes by first subnational level, 2017



Source: MeaNS 2017

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, 2017



Source: Measles and rubella elimination Annual Status Update report, 2017 and communication with the country

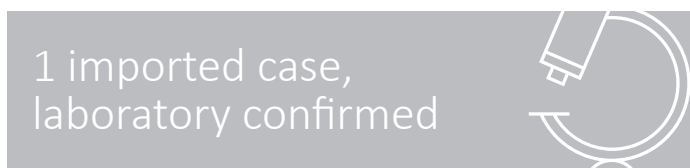
Note: Excludes imported cases

Sources of infection, 2017

	Measles	Rubella
Imported	45	1
Import-related	37	0
Unknown/ Not reported	489	11
Endemic	4828	56

Source: Measles and rubella elimination Annual Status Update report, 2017 and communication with the country

Information on CRS, 2017



Source: Measles and rubella elimination Annual Status Update report, 2017
CRS = congenital rubella syndrome

Supplementary immunization activities

Year	Target age	Vaccine used	% Coverage
2017	Ages vary (multiple SIA's)	MMR/MMRV	36.5-97%

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

Measles and rubella elimination country profile Italy

Measles incidence, epidemiologic and virologic characteristics, 2013-2017

	Suspected measles cases	Confirmed measles cases				Discarded as non-measles	Measles incidence	Genotypes detected
		Laboratory	Epi-linked	Clinically	Total			
2013	2389	1244	671	355	2270	153	38	B3,D4,D8,D9
2014	1728	1016	451	228	1695	119	27.9	B3,D8,D9,H1
2015	335	168	43	45	256	87	4.2	B3,D4,D8
2016	910	632	102	127	861	72	14.2	B3, D8, H1
2017	5813	4358	402	639	5399	409	89.1	B3,D8,H1

Source: Measles and rubella elimination Annual Status Update report, 2013-2017 and communication with the country
Incidence calculated per 1 million population
ND = Data not available; NA= Not applicable

Measles surveillance and laboratory performance indicators, 2013-2017

	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
2013	0.3	0%	12.3%	93.3%	ND	ND	20.5%	ND
2014	0.2	0%	12.4%	95.7%	174	71.3%	ND	ND
2015	0.1	0%	21.6%	98.4%	248	64.9%	ND	26%
2016	0.1	0%	16%	93.5%	721	85.9%	32.5%	18%
2017	0.7	4.8%	83.1%	90.9%	4850	89.6%	62.1%	92.2%

Source: ASU 2013-2017
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, 2013-2017

	Suspected rubella cases	Confirmed rubella cases				Discarded as non-rubella	Rubella incidence	Genotypes detected
		Laboratory	Epi-linked	Clinically	Total			
2013	116	7	35	27	69	28	1.2	ND
2014	139	7	6	13	26	28	0.4	1E
2015	54	11	4	12	27	25	0.4	1G
2016	81	6	7	17	30	23	0.5	ND
2017	95	29	7	32	68	27	1.1	ND

Source: Measles and rubella elimination Annual Status Update report, 2013-2017 and communication with the country
Incidence calculated per 1 million population
ND = Data not available; NA= Not applicable

Rubella surveillance and laboratory performance indicators, 2013-2017

	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
2013	0.1	0%	ND	68.2%	ND	ND	ND	ND
2014	0.1	0%	31.9%	76%	157	1.9%	ND	ND
2015	0	0%	25.5%	66.7%	37	32.4%	ND	32%
2016	0	0%	13.2%	83.3%	41	36.6%	ND	17%
2017	0	0%	17%	83.8%	75	41.3%	ND	20%

Source: ASU 2013-2017
ND = Data not available; NA= Not applicable
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RVC comments, based on 2017 reporting

The Regional Verification Commission for Measles and Rubella Elimination (RVC) commends Italy on the efforts made towards measles and rubella elimination, and comprehensive measles genotyping information provided in the ASU. The RVC urges further steps to be taken to achieve and maintain high vaccination coverage with 2 doses of MRCV at all administrative levels. Surveillance sensitivity and laboratory testing and genotyping of rubella need to be strengthened.

Source: European Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report: www.euro.who.int/7thrv

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%