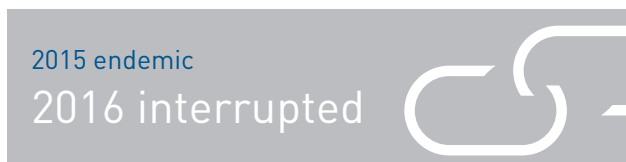


Measles and rubella elimination country profile Turkey

Measles elimination status



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

National plan of action



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

Measles and rubella immunization schedule, 2016

	Vaccine	Schedule	Year of introduction	
MCV1	MMR	12 months	MCV2	1998
MCV2	MMR	6 years	RCV	2006
Measles vaccination in school				Yes

Source: Immunization schedule, WHO, Data and Statistics, Immunization Monitoring and Surveillance (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

Definition used for an outbreak

2 or more laboratory-confirmed cases which are temporally related (with dates of rash onset occurring between 7 and 18 days apart for measles, and between 12 and 46 days apart for rubella) and epidemiologically or virologically linked, or both

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

Rubella elimination status



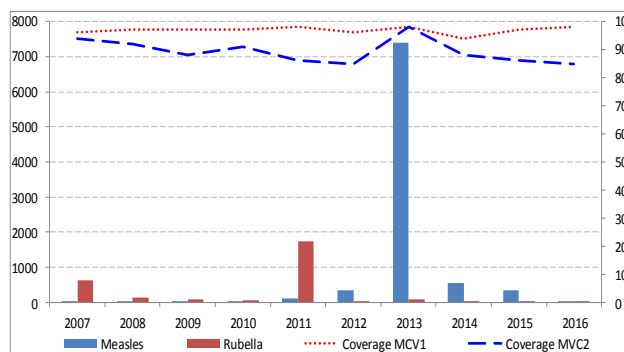
Source: European Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report: www.euro.who.int/6thRVC

Demographic information, 2016

Total population	79 622 062
< 1 year old	1 275 547
< 5 years old	6 830 574

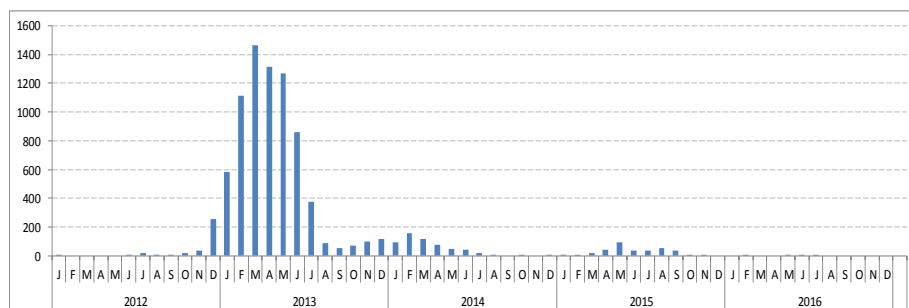
Source: World Population Prospects: The 2015 Revision, New York, United Nations

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/)
MCV1 = first dose of measles-containing vaccine
MCV2 = second dose of measles-containing vaccine

Confirmed measles cases by month of onset, 2012–2016



Source: CISID2 2016



Measles and rubella elimination country profile Turkey

Measles cases by first subnational level, 2016



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

Measles genotypes by first subnational level, 2016

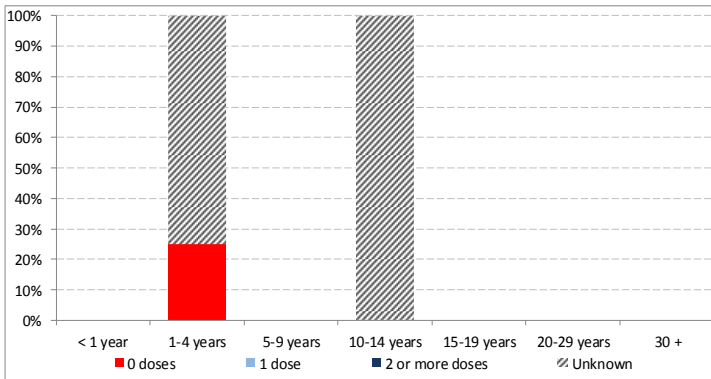


Source: MeaNS 2016

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 first subnational level, 2016



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

Sources of infection, 2016

	Measles	Rubella
Imported	1	0
Import-related	5	0
Unknown/ Not reported	3	7
Endemic	0	0

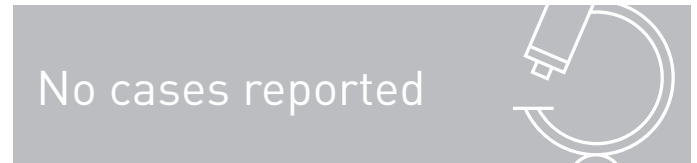
Source: Measles and rubella elimination Annual Status Update report, 2016

Supplementary immunization activities

Year	Target age	Vaccine used	% Coverage
2016	9 M - 11 M	M, MMR	46.7%
2016	Refugees > 5 Y	M, MMR	58%
NA			

Source: Supplementary immunization activities, WHO, Data and Statistics, Immunization Monitoring and Surveillance (http://www.who.int/immunization/monitoring_surveillance/data/en/)
NA= Not applicable; 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

Turkey

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	1 267	343	6	0	349	918	4.7	B3,D8
2013	17 809	7 389	16	0	7 405	10 404	87.3	D4,D8
2014	4 876	562	3	0	565	4 311	7.4	B3,D8,H1
2015	3 492	342	0	0	342	3 150	4.3	B3,D8
2016	2 217	9	0	0	9	2 208	0.1	D8

Source: Measles and rubella elimination Annual Status Update report, 2012-2016, and internal communication from country
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	1.2	14.8%	98.3%	67.9%	3 590	29.7%	95%	100%
2013	13.6	85.2%	99.8%	47.9%	32 640	24.6%	50%	100%
2014	5.6	67.9%	99.5%	50.8%	8 198	11.7%	50%	100%
2015	3.9	64.2%	100%	23.1%	4 370	9.7%	87.5%	100%
2016	2.8	59.3%	100%	66.7%	3 067	3.4%	50%	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	41	0	0	41	ND	0.6	NA
2013	ND	81	0	0	81	ND	1	NA
2014	136	39	0	0	39	97	0.5	NA
2015	135	16	0	0	16	132	0.2	1H
2016	300	7	0	0	7	293	0.1	1H

Source: Measles and rubella elimination Annual Status Update report, 2012-2016, and internal communication from country
Incidence calculated per 1 million population
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	1.2	ND	100%	ND	50	2%	ND	100%
2013	13.6	ND	100%	ND	4 710	2.2%	ND	100%
2014	5.6	ND	100%	ND	2 947	2.1%	ND	100%
2015	3.9	ND	100%	ND	2 950	1.6%	ND	100%
2016	2.8	ND	100%	ND	2 660	2.7%	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) commends the National Verification Committee (NVC), national health authorities and public health system on interruption of endemic measles transmission in Turkey. The RVC commends Turkey on immunization activities targeting high-risk populations, including migrants and refugees, and on initiating rubella virus genotyping in 2016. The RVC urges the national health authorities and public health system to strengthen activities in line with WHO resolutions and guidelines to achieve and document elimination of rubella as well.

Source: Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report (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: \geq 80%
- % origin of infection known: \geq 80%
- Rate of viral detection: \geq 80%