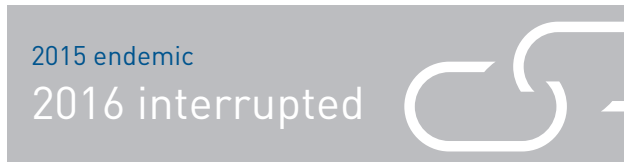


Measles and rubella elimination country profile

Germany

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



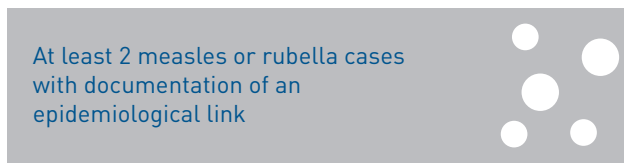
Source: Measles and rubella elimination Annual Status Update report, 2016

Measles and rubella immunization schedule, 2016

	Vaccine	Schedule	Year of introduction	
MCV1	MMR	11-14 months	MCV2	1991
MCV2	MMR	15-23 months	RCV	1991
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/)
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



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

Rubella elimination status



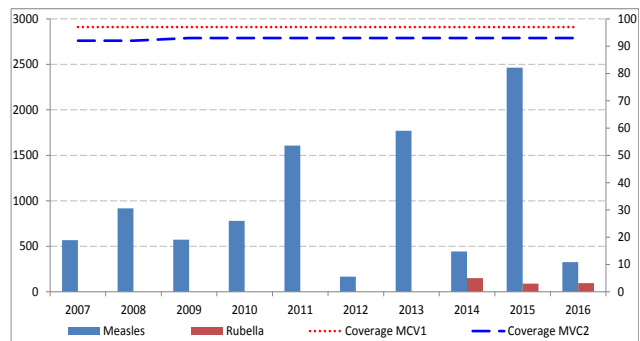
Source: European Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report: www.euro.who.int/6thRVC

Demographic information, 2016

Total population	80 682 351
< 1 year old	683 472
< 5 years old	3 417 066

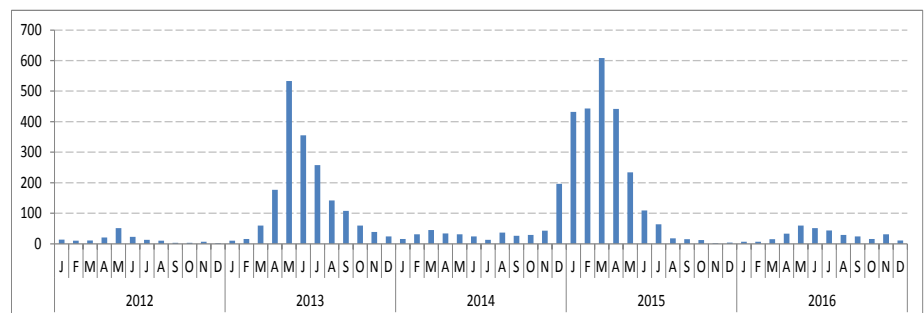
Source: World Population Prospects: The 2015 Revision, New York, United Nations

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



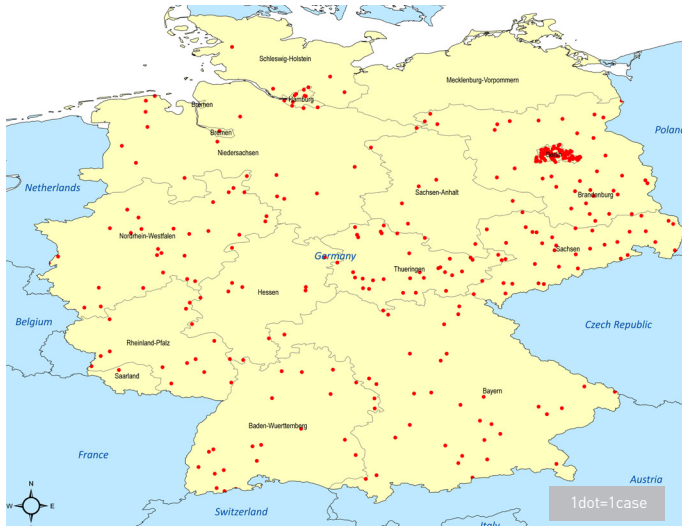
Source: CISID2 2016



Measles and rubella elimination country profile

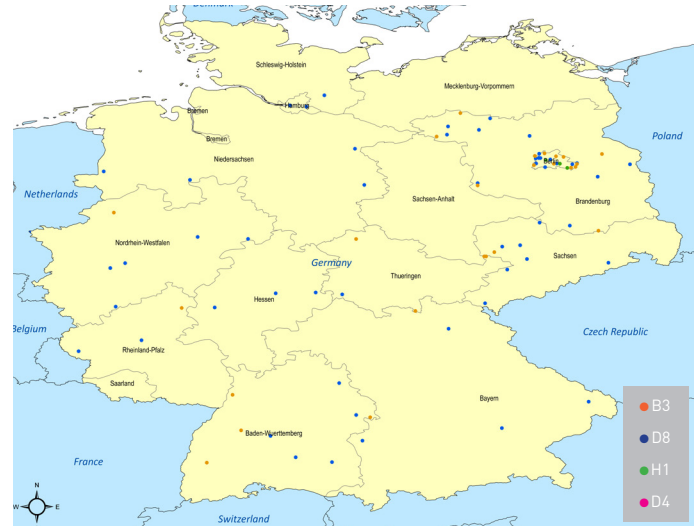
Germany

Measles cases by first subnational level, 2016



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

Measles genotypes by first subnational level, 2016

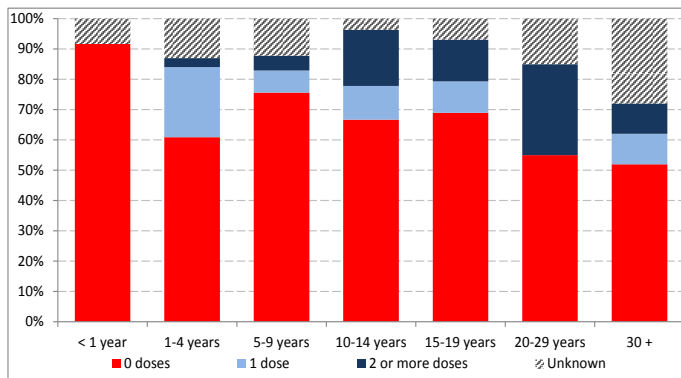


Source: MeaNS 2016

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	58	2
Import-related	142	0
Unknown/ Not reported	126	93
Endemic	0	0

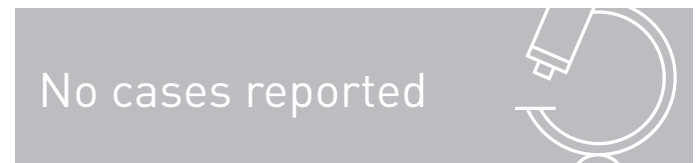
Source: Measles and rubella elimination Annual Status Update report, 2016

Supplementary immunization activities

Year	Target age	Vaccine used	% Coverage
2016	Refugees	MMR	ND

Source: Supplementary immunization activities, WHO, Data and Statistics, Immunization Monitoring and Surveillance (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

Germany

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	145	24	26	166	ND	1.7	B3,D4,D8,D9
2013	ND	1 037	481	253	1 761	ND	20.9	B3,D4,D8,D9
2014	ND	344	57	42	443	ND	4.9	B3,D8,D9,H1
2015	ND	1 586	639	239	2 464	ND	29.8	B3,D8,H1
2016	391	272	35	19	326	235	3.3	B3, D8

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	ND	ND	84%	21%	ND	ND	ND	ND
2013	ND	ND	80.4%	3.7%	ND	ND	33.5%	ND
2014	ND	ND	89%	43%	ND	ND	55%	ND
2015	ND	ND	87%	21%	ND	ND	52%	ND
2016	ND	ND	93%	61%	10 741	3.6%	85%	ND

Source: ASU 2012-2016, MeaNS 2012-2016 and laboratory accreditation results 2012-2016
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	ND	ND	ND	ND	ND	ND	ND
2013	ND	ND	ND	ND	ND	ND	ND	ND
2014	ND	32	6	113	151	ND	1.8	ND
2015	ND	19	2	68	89	ND	1.1	ND
2016	275	22	8	65	95	268	1.1	ND

Source: Measles and rubella elimination Annual Status Update report, 2012-2016
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	ND	ND	ND	ND	ND	ND	ND	ND
2013	ND	ND	ND	ND	ND	ND	ND	ND
2014	ND	ND	22%	NA	ND	ND	0%	ND
2015	ND	ND	22%	NA	ND	ND	0%	ND
2016	ND	ND	25%	2%	275	9.1%	0%	ND

Source: ASU 2012-2016, RubeNS 2012-2016 and laboratory accreditation results 2012-2016
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 Germany, on the high-quality report provided and on efforts made in recent years aiming at high population immunity and improved viral detection of measles outbreaks. The RVC urges further improvement in the quality of measles and rubella surveillance, including the rate of viral detection of sporadic measles cases and the rates of laboratory investigation and viral detection for rubella. 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%