

# Measles and rubella elimination country profile Finland

## Measles elimination status

2015 eliminated  
2016 eliminated



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

Does the country have a national plan of action?  
ND

Is it updated? ND



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

## Measles and rubella immunization schedule, 2016

	Vaccine	Schedule	Year of introduction	
MCV1	MMR	12-18 months	MCV2	1982
MCV2	MMR	6 years	RCV	1975
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/](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

More than 1 case



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



## Rubella elimination status

2015 eliminated  
2016 eliminated



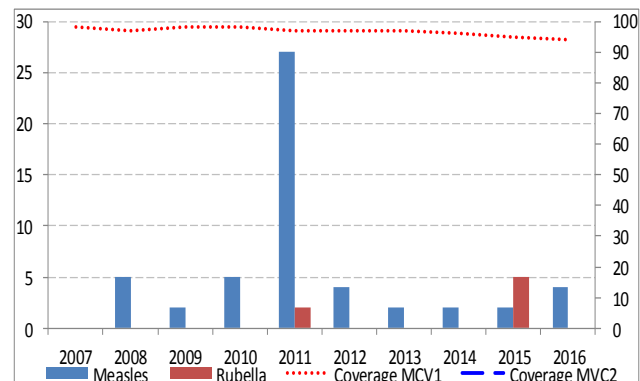
Source: European Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report: [www.euro.who.int/6thRVC](http://www.euro.who.int/6thRVC)

## Demographic information, 2016

Total population	5 523 904
< 1 year old	58 449
< 5 years old	300 501

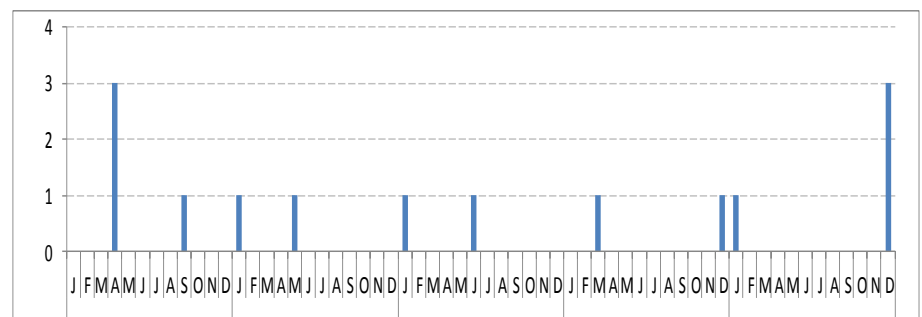
Source: World Population Prospects: The 2015 Revision, New York, United Nations

## 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/](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

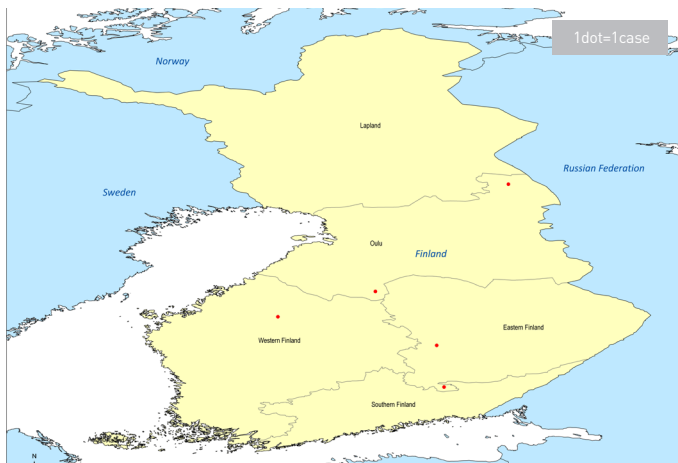


Source: CISID2 2016

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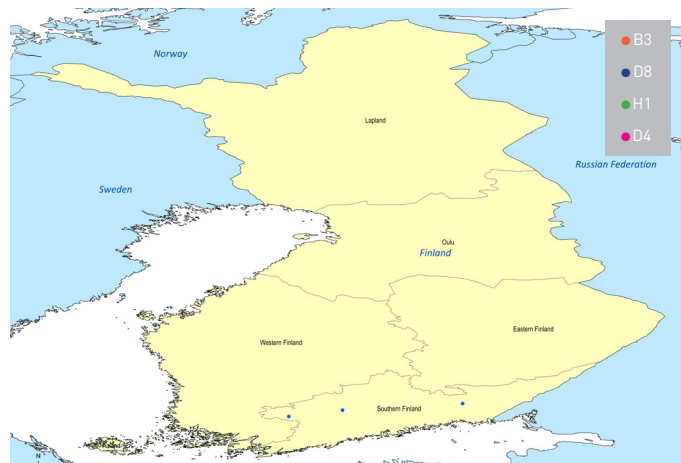
## Finland

### Measles cases by first subnational level, 2016



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

### Measles genotypes by first subnational level, 2016

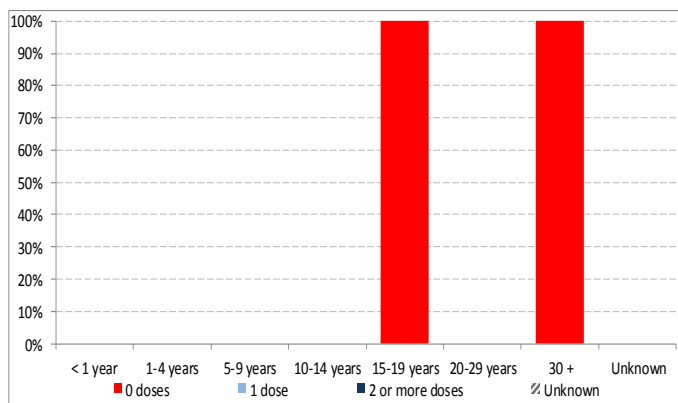


Source: MeaNS 2016

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	2	0
Import-related	2	0
Unknown/ Not reported	0	0
Endemic	0	0

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

### Information on CRS, 2016



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

# Measles and rubella elimination country profile

## Finland

### 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	60	4	0	0	4	56	0	D8
2013	32	2	0	0	2	30	0.2	D8
2014	31	2	0	0	2	29	0	B3, D8
2015	32	2	0	0	2	30	0.2	D8
2016	41	4	0	0	4	37	0.9	B3, 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	93	ND	100%	100%	ND	ND	ND	ND
2013	6.6	ND	100%	100%	ND	ND	100%	ND
2014	5.7	ND	100%	100%	2	100%	ND	ND
2015	0.5	ND	100%	50%	2	100%	ND	100%
2016	0.7	ND	100%	100%	41	9.8%	100%	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	5	0	0	0	0	5	0	NA
2013	10	2	0	0	2	11	0	ND
2014	1	0	0	0	0	1	0	NA
2015	14	4	0	0	5	9	0.7	ND
2016	4	0	0	0	0	4	0	NA

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	12.5	ND	100%	NA	ND	ND	NA	ND
2013	12.8	ND	100%	100%	ND	ND	100%	ND
2014	13.4	NA	100%	NA	ND	ND	NA	ND
2015	ND	ND	100%	10%	4	100%	0%	100%
2016	0.1	ND	100%	NA	4	0%	NA	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  
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### RVC comments, based on 2016 reporting

The Regional Verification Commission for Measles and Rubella Elimination (RVC) concluded that endemic transmission of both measles and rubella remained interrupted in Finland in 2016, and confirmed that measles and rubella elimination has been sustained. The RVC commends the National Verification Committee (NVC) on this achievement and anticipates that the immunization and surveillance programmes will perform at an elimination-standard level in the coming years.

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%