

# Measles and rubella elimination country profile Iceland

## Measles elimination status

2015 interrupted  
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  
ND= Data not available

## Measles and rubella immunization schedule, 2016

	Vaccine	Schedule	Year of introduction	
MCV1	MMR	18 months	MCV2	1976
MCV2	MMR	12 years	RCV	1979
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

One case of measles/rubella which is not imported



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



## Rubella elimination status

2015 interrupted  
2016 eliminated



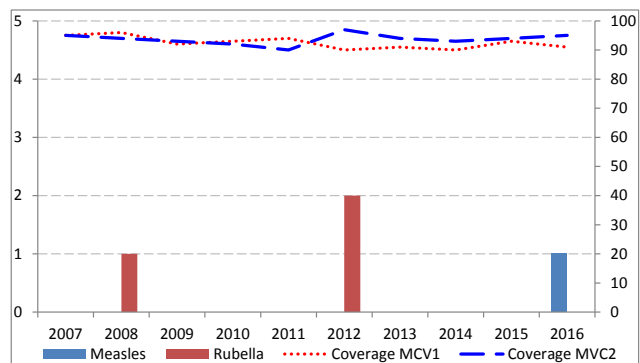
Source: European Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report: [www.euro.who.int/6thRVC](http://www.euro.who.int/6thRVC)

## Demographic information, 2016

Total population	331 778
< 1 year old	4 352
< 5 years old	22 512

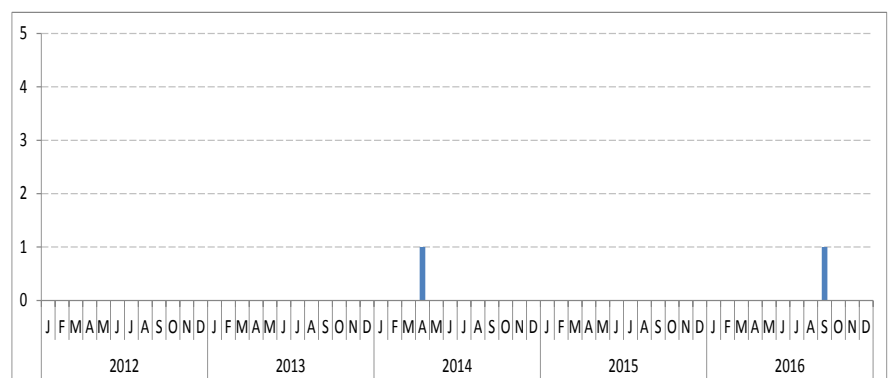
Source: World Population Prospects: The 2015 Revision, New York, United Nations

## 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

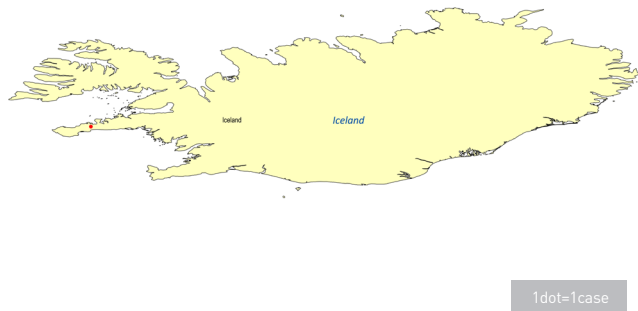
## Confirmed measles cases by month of onset, 2012–2016



Source: CISID2 2016

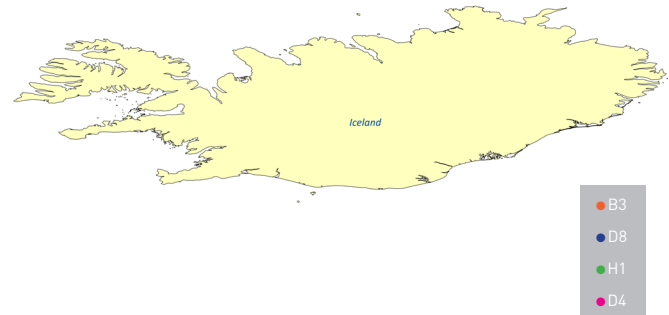
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## Measles cases by first subnational level, 2016



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

## Measles genotypes by first subnational level, 2016

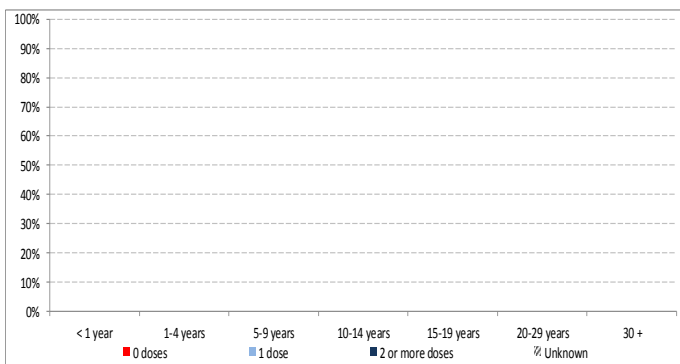


Source: MeaNS 2016  
(Note: no subnational genotype information available)

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



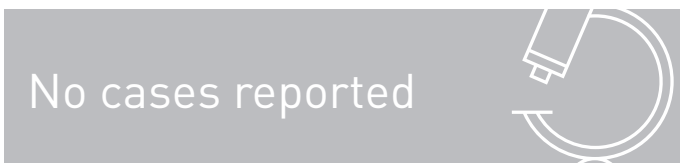
Source: Measles and rubella elimination Annual Status Update report, 2016  
(No age group and vaccination status data available)

## Sources of infection, 2016

	Measles	Rubella
Imported	1	0
Import-related	0	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

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## 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	0	0	0	0	ND	0	NA
2013	ND	0	0	0	0	ND	0	NA
2014	ND	1	0	0	1	ND	3	ND
2015	ND	0	0	0	0	ND	0	NA
2016	32	1	0	0	1	31	3	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

## 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	>80%	ND	>80%	ND	ND	ND	ND	ND
2013	ND	ND	NA	NA	ND	ND	0%	ND
2014	ND	ND	ND	100%	61	1.6%	0%	ND
2015	ND	ND	NA	NA	39	0%	0%	100%
2016	9.3	ND	ND	100%	32	3.1%	100%	100%

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	2	0	0	2	ND	6	ND
2013	3	0	0	0	0	3	0	NA
2014	ND	0	0	0	0	ND	0	NA
2015	ND	0	0	0	0	ND	0	NA
2016	104	0	0	0	0	104	0	NA

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	>80%	ND	>80%	ND	ND	ND	ND	ND
2013	ND	ND	NA	NA	ND	ND	0%	ND
2014	ND	ND	NA	NA	120	0%	0%	ND
2015	ND	ND	NA	NA	91	0%	0%	100%
2016	31.3	ND	NA	NA	104	0%	100%	100%

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) concluded that endemic transmission of both measles and rubella remained interrupted in Iceland in 2016. Considering the RVC's conclusions about the interrupted status of measles and rubella transmission in the country in 2014 and 2015, it is pleased to declare that Iceland has achieved elimination of measles and rubella. The RVC commends the country for this achievement, but requests the National Verification Committee (NVC) to provide an analysis and interpretation of data about possible imported measles cases, including measles genotyping data in future ASUs. The RVC urges the national health authorities to maintain immunization coverage of 95% with both doses of MRCV

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:  $\geq 80\%$
- % origin of infection known:  $\geq 80\%$
- Rate of viral detection:  $\geq 80\%$