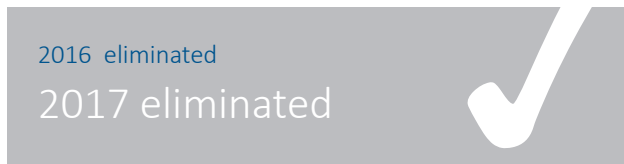


Measles and rubella elimination country profile

Denmark

Measles elimination status



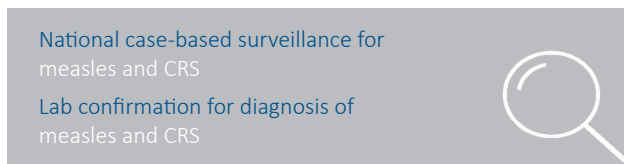
Source: European Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report: www.euro.who.int/7thrv

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	5 733 551
< 1 year old	56 546
< 5 years old	285 454

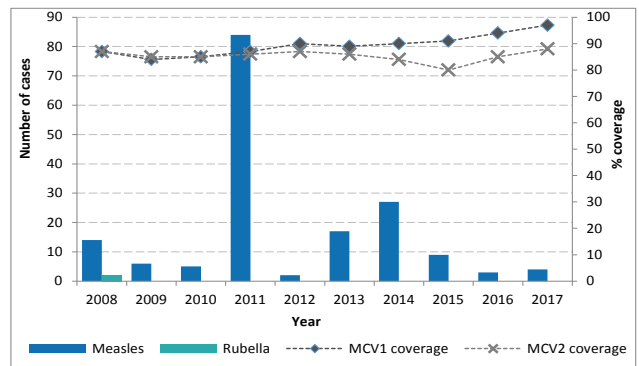
Source: World Population Prospects: The 2017 Revision, New York, United Nations

Measles and rubella immunization schedule, 2017

	Vaccine	Schedule	Year of introduction	
MCV1	MMR	15 months	MCV2	1987
MCV2	MMR	4 years	RCV	1987
Measles vaccination in school				No

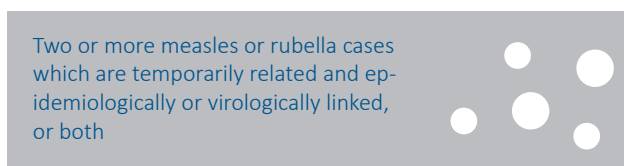
Source: Immunization schedule, WHO, Data and Statistics, Immunization Monitoring and Surveillance (http://www.who.int/immunization/monitoring_surveillance/data/en/)
MMR = measles-mumps-rubella vaccine; MCV1 = first dose measles-containing vaccine; MCV2 = second dose measles-containing vaccine; RCV =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

Measles and rubella cases and immunization coverage, 2008–2017



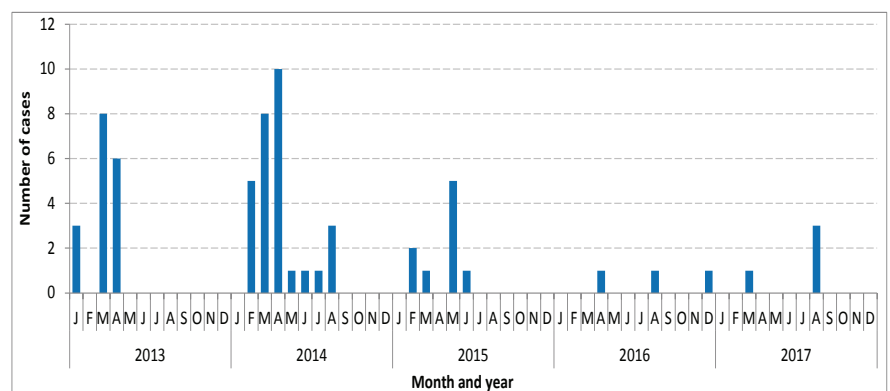
Source: Disease incidence and immunization coverage (WUENIC), WHO, Data and Statistics, Immunization Monitoring and Surveillance (http://www.who.int/immunization/monitoring_surveillance/data/en/)
MCV1 = first dose of measles-containing vaccine
MCV2 = second dose of measles-containing vaccine

Definition used for an outbreak



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

Confirmed measles cases by month of onset, 2013-2017



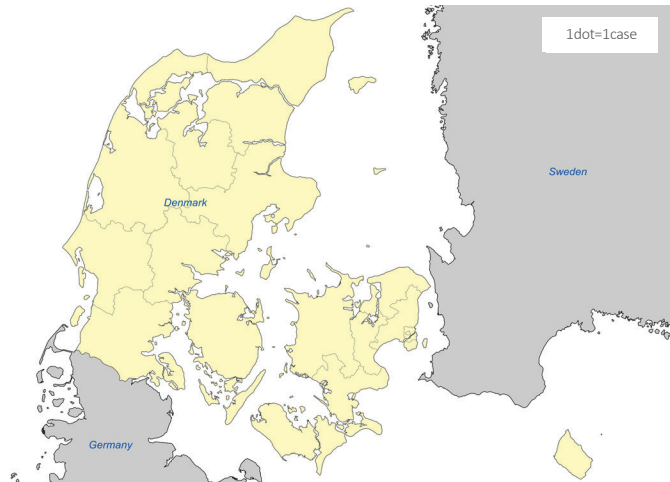
Source: CISID 2017



Measles and rubella elimination country profile

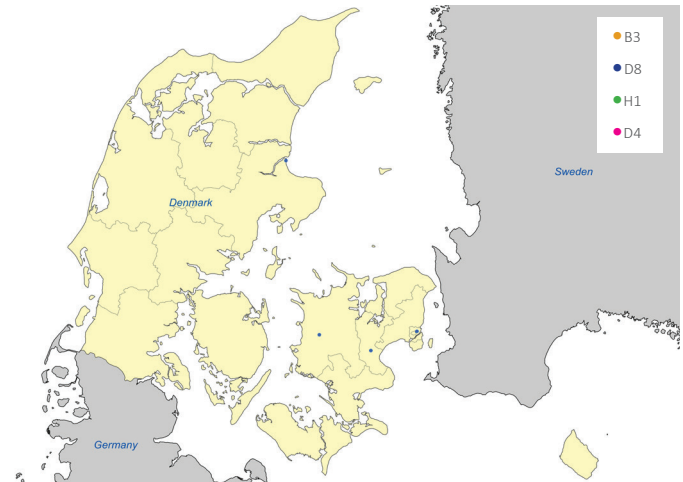
Denmark

Measles cases by first subnational level, 2017



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

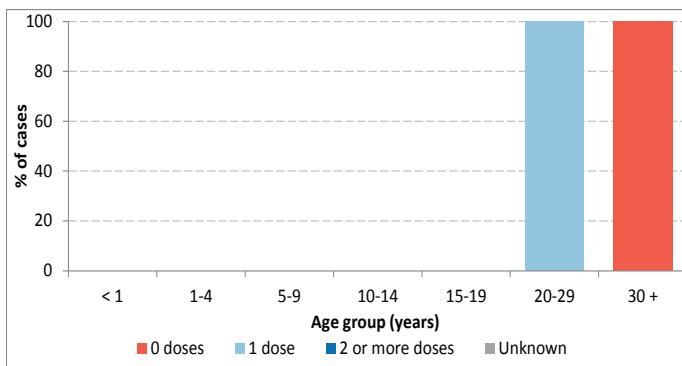
Measles genotypes by first subnational level, 2017



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
Note: Excludes imported cases

Sources of infection, 2017

	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, 2017

Information on CRS, 2017



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

Measles and rubella elimination country profile

Denmark

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	ND	ND	ND	ND	ND	ND	2.5	D8
2014	162	25	2	0	27	138	3.6	B3
2015	186	9	0	0	9	177	1.4	D8,H1
2016	75	3	0	0	3	72	0	B3, D8
2017	123	4	0	0	4	119	0.3	D8

Source: Measles and rubella elimination Annual Status Update report, 2013-2017
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	ND	ND	ND	ND	ND	ND	ND	ND
2014	2.5	0%	100%	89%	682	3.5%	100%	ND
2015	0.5	0%	100%	55%	697	1.9%	100%	100%
2016	1.3	ND	100%	100%	75	4.2%	0%	100%
2017	2.1	NA	100%	100%	123	3.3%	100%	100%

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	ND	ND	ND	ND	ND	ND	0	NA
2014	0	0	0	0	0	0	0	NA
2015	0	0	0	0	0	0	0	NA
2016	0	0	0	0	0	0	0	NA
2017	0	0	0	0	0	0	0	NA

Source: Measles and rubella elimination Annual Status Update report, 2013-2017
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	ND	ND	ND	ND	ND	ND	ND	ND
2014	NA	NA	NA	NA	0	0%	0	ND
2015	NA	NA	NA	NA	ND	0%	0	100%
2016	NA	NA	NA	NA	ND	0%	0	ND
2017	2.1	NA	100%	NA	119	0%	NA	100%

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

RVC comments, based on 2017 reporting

The Regional Verification Commission for Measles and Rubella Elimination (RVC) continues to call for the implementation of WHO resolutions and guidelines recommending establishment of national rubella and CRS surveillance. The RVC would also appreciate if information on samples submitted for measles PCR testing would include specific information on clinical suspicion. In the absence of this information such cases should not be discarded.

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%