

Measles and rubella elimination country profile

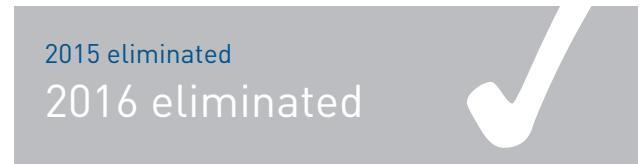
Norway

Measles elimination status



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

Rubella elimination status



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

National plan of action



Source: Rubella Elimination Annual Status Update report, 2016
ND = Data not available
* published in 2017

Demographic information, 2016

| | |
|------------------|-----------|
| Total population | 5 271 958 |
| < 1 year old | 61 206 |
| < 5 years old | 315 417 |

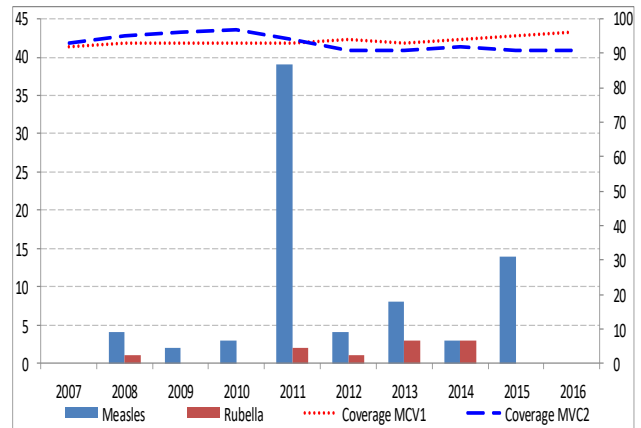
Source: World Population Prospects: The 2015 Revision, New York, United Nations

Measles and rubella immunization schedule, 2016

| | Vaccine | Schedule | Year of introduction | |
|-------------------------------|---------|-----------|----------------------|------|
| MCV1 | MMR | 15 months | MCV2 | 1983 |
| MCV2 | MMR | 11 years | RCV | 1978 |
| Measles vaccination in school | | | | Yes |

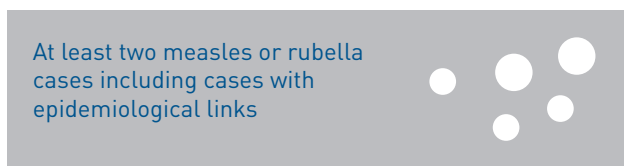
Source: Immunization schedule, WHO, Data and Statistics, Immunization Monitoring and Surveillance (http://www.who.int/immunization/monitoring_surveillance/data/en/)
MMR = measles-mumps-rubella-containing vaccine; MCV1 = first dose measles-containing vaccine; MCV2 = second dose measles-containing vaccine;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

Measles and rubella cases and immunization coverage, 2007–2016



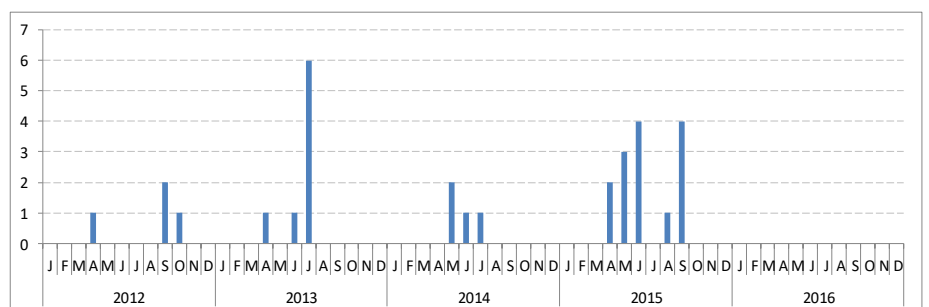
Source: Disease incidence and immunization coverage, WHO, Data and Statistics, Immunization Monitoring and Surveillance (http://www.who.int/immunization/monitoring_surveillance/data/en/)
MCV1 = first dose of measles-containing vaccine
MCV2 = second dose of measles-containing vaccine

Definition used for an outbreak



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

Confirmed measles cases by month of onset, 2012–2016



Source: CISID2 2016



Measles and rubella elimination country profile Norway

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 | 4 | 0 | 0 | 4 | ND | 0.2 | D4,D8 |
| 2013 | 47 | 8 | 0 | 0 | 8 | 39 | 1 | D4,D8 |
| 2014 | 43 | 3 | 0 | 0 | 3 | 40 | 0 | D8 |
| 2015 | 75 | 14 | 0 | 0 | 14 | 61 | 1.2 | B3,D8 |
| 2016 | 744 | 0 | 0 | 0 | 0 | 744 | 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

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 | 95% | ND | 100% | 100% | ND | ND | ND | ND |
| 2013 | 83% | ND | ND | 87.5% | ND | ND | 62.5% | ND |
| 2014 | 0.8 | ND | 100% | 100% | 43 | 7.0% | NA | ND |
| 2015 | 1.2 | ND | 100% | 86% | 75 | 18.7% | 100% | ND |
| 2016 | ND | 100% | 100% | NA | 744 | 0% | NA | 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 | 1 | 0 | 0 | 1 | ND | 0 | ND |
| 2013 | 46 | 3 | 0 | 0 | 3 | 43 | 0 | ND |
| 2014 | 58 | 2 | 0 | 1 | 3 | 55 | 0 | ND |
| 2015 | 39 | 0 | 0 | 0 | 0 | 39 | 0 | NA |
| 2016 | 426 | 0 | 0 | 0 | 0 | 426 | 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 | 97.8% | ND | 100% | 100% | ND | ND | ND | ND |
| 2013 | 93.5% | ND | ND | 100% | ND | ND | ND | ND |
| 2014 | 1.1 | ND | 100% | 100% | 58 | 5.2% | ND | ND |
| 2015 | 0.8 | 100% | 100% | NA | 39 | 0% | NA | ND |
| 2016 | ND | 100% | 100% | NA | 426 | 0% | NA | 100% |

Source: ASU 2012-2016, RubeNS 2012-2016 and laboratory accreditation results 2012-2016
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 Norway in 2016, and confirmed that measles and rubella elimination has been sustained. The RVC commends Scandinavian Verification Committee on the clear and comprehensive report provided, and anticipates that the national public health system will maintain the high level of performance in the coming years.

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%

Information on CRS, 2016

No cases reported



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