# Measles and rubella elimination country profile Lithuania 

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 ND= Data not available

Measles and rubella immunization schedule, 2016

|  | Vaccine | Schedule | Year of introduction |  |
| :---: | :---: | :---: | :---: | :---: |
| MCV1 | MMR | $15-16$ <br> months | MCV2 | 1992 |
| MCV2 | MMR | 6-7 years | RCV | 1992 |
| 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; $M C V 1=$ first dose measles-containing vacccine; 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

## 2015 Interrupted

2016 eliminated

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

Demographic information, 2016

| Total population | 2850030 |
| :---: | :---: |
| < 1 year old | 29804 |
| < 5 years old | 153764 |

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 Surveilance
(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: CIIID2 2016

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 submitted)

Sources of infection, 2016

|  | Measles | Rubella |
| :---: | :---: | :---: |
| Imported | 0 | 0 |
| Import-related | 0 | 0 |
| Unknown/ Not <br> reported | 0 | 0 |
| Endemic | 22 | 0 |

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

Information on CRS, 2016

## No cases reported



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

Measles incidence, epidemiologic and virologic characteristics, 2012-2016

|  | Suspected measles cases | Confirmed measles cases |  |  |  | Discarded <br> as nonmeasles | Measles incidence | Genotypes detected |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Laboratory | Epilinked | Clincally | Total |  |  |  |
| 2012 | ND | 2 | 0 | 0 | 2 | ND | 0.6 | ND |
| 2013 | 65 | 27 | 3 | 5 | 35 | 30 | 11.1 | D8 |
| 2014 | 23 | 11 | 0 | 0 | 11 | 14 | 2.4 | D8 |
| 2015 | 169 | 45 | 5 | 0 | 50 | 128 | 16.9 | D8 |
| 2016 | 100 | 21 | 1 | 0 | 22 | 80 | 7.6 | ND |

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 incidence, epidemiologic and virologic characteristics, 2012-2016

|  | Suspected <br> rubella <br> cases | Confirmed measles cases |  |  |  | Discarded <br> as <br> non- <br> rubella | Rubella <br> incidence | Genotypes <br> detected |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2012 |  | 0 | 0 | 0 | 0 | ND | 0 | NA |
| 2013 |  | 0 | 0 | 2 | 2 | 31 | 0.7 | ND |
| 2014 |  | 0 | 0 | 0 | 0 | 15 | 0 | NA |
| 2015 | 100 | 0 | 0 | 0 | 0 | 99 | 0 | NA |
| 2016 | 14 | 0 | 0 | 0 | 0 | 11 | 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

Measles surveillance and laboratory performance indicators, 2012-2016

|  | Discarded <br> non- <br> measles <br> rate | \% 1st sub- <br> national <br> unit with <br> $\geqslant 2$ <br> discarded <br> cases | \% cases <br> with <br> adequate <br> laboratory <br> investiga- <br> tion | \% origin of <br> infection <br> known | $\#$ <br> specimen <br> tested for <br> measles | \% positive <br> for <br> measles | Rate of <br> viral <br> detection | \% WHO <br> and <br> proficient <br> labs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2012 | 0.2 | ND | $100 \%$ | $85 \%$ | ND | ND | ND | ND |
| 2013 | 1 | $10 \%$ | $100 \%$ | $91.4 \%$ | ND | ND | $51.9 \%$ | ND |
| 2014 | 0.5 | $0 \%$ | $100 \%$ | $100 \%$ | 33 | $36.4 \%$ | $88.8 \%$ | ND |
| 2015 | 4.1 | $80 \%$ | $100 \%$ | $100 \%$ | 169 | $26.6 \%$ | $66.7 \%$ | $100 \%$ |
| 2016 | 2.7 | $50 \%$ | $98.8 \%$ | $100 \%$ | 99 | $17.2 \%$ | $66.7 \%$ | $100 \%$ |

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
accredited and/or has an established quality assurance programme with oversight by a WHO accredited laboratory

Rubella surveillance and laboratory performance indicators, 2012-2016

|  | Discarded <br> non- <br> rubella <br> rate | \% 1st sub- <br> national <br> unit with <br> 2 2 <br> discarded <br> cases | \% cases <br> with <br> adequate <br> laboratory <br> investiga- <br> tion | \% origin of <br> infection <br> known | $\#$ <br> specimen <br> tested for <br> rubella | \% positive <br> for rubella | Rate of <br> viral <br> detection | \% WHO <br> and <br> proficient <br> labs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2012 | ND | ND | NA | NA | ND | ND | ND | ND |
| 2013 | 1.0 | $20 \%$ | $100 \%$ | $0 \%$ | ND | ND | 0 | ND |
| 2014 | 0.5 | $0 \%$ | $93.3 \%$ | NA | 24 | $0 \%$ | NA | ND |
| 2015 | 4.2 | $80 \%$ | $100 \%$ | NA | 118 | $0 \%$ | NA | $100 \%$ |
| 2016 | 0.2 | $0 \%$ | $45.5 \%$ | NA | 5 | $0 \%$ | 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
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 Lithuania 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 Lithuania has achieved elimination of measles and rubella. The RVC commends Lithuania for this achievement, but also emphasizes its concerns over the apparent population immunity gaps revealed by seroprevalence studies. The RVC urges additional efforts to close immunity gaps, to maintain immunization coverage of $95 \%$ with both doses of MRCV at national and subnational levels and to improve the laboratory segment of surveillance.

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

## Surveillance performance indicators and targets

a. Rate of discarded cases: at least 2 discarded measles or rubella cases per 100000 population
b. $\%$ cases with adequate laboratory investigation: $\geqslant 80 \%$
c. \% origin of infection known: $\geqslant 80 \%$
d. Rate of viral detection: $\geqslant 80 \%$

