# Measles and rubella elimination country profile Belarus



#### Measles elimination status

2016 eliminated 2017 eliminated

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

#### Measles and rubella surveillance

National case-based surveillance for Lab confirmation for diagnosis of



## Measles and rubella immunization schedule, 2017

	Vaccine	Schedule	Year of introduction					
MCV1	MMR	1 year	MCV2	1987				
MCV2	MMR	6 years	RCV 1996					
N	Measles vaccination in school							

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 vaccin

#### Definition used for an outbreak

Two or more cases of measles and rubella observed at the same time and linked by epidemiological and/or viral characteristics



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

#### Rubella elimination status

2016 eliminated 2017 eliminated

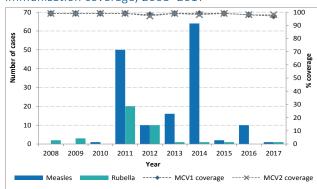
Source: European Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report: www.euro.who.int/7thrvo

#### Demographic information, 2017

Total population	9 468 338
< 1 year old	112 023
< 5 years old	577 059

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

## Measles and rubella cases and immunization coverage, 2008-2017



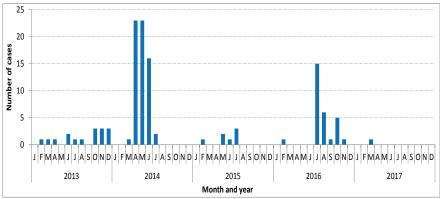
Source: Disease incidence and immunization coverage (WUENIC), WHO, Data and Statistics,

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

# Confirmed measles cases by month of onset, 2013-2017



Source: CISID 2017

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#### Measles cases by first subnational level, 2017



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

### Measles genotypes by first subnational level, 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

### Information on CRS, 2017



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

#### Sources of infection, 2017

	Measles	Rubella
Imported	1	1
Import-related	0	0
Unknown/ Not reported	0	0
Endemic	0	0

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

#### RVC comments, based on 2017 reporting

The Regional Verification Commission for Measles and Rubella Elimination (RVC) concluded that endemic transmission of both measles and rubella remained interrupted in Belarus in 2017 and confirmed that measles and rubella elimination has been sustained.

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

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# Measles incidence, epidemiologic and virologic characteristics, 2013-2017

	Suspected		Confirmed m	neasles cases		Discarded as	Measles	Genotypes detected
	cases	Laboratory	Epi- linked	Clinically	Total	non- measles	incidence	
2013	ND	16	0	0	16	ND	0.8	D4
2014	ND	64	0	0	64	ND	6.1	ND
2015	10	2	0	0	2	8	3.6	ND
2016	28	28	105	0	132	0	1.1	ND
2017	336	1	0	0	1	335	0	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

# Rubella incidence, epidemiologic and virologic characteristics, 2013-2017

	Suspected	d Confirmed rubella cases				Discarded as	Rubella	Genotypes
	cases	Laboratory	Epi- linked	Clinically	Total	non- rubella	incidence	detected
2013	ND	1	0	0	ND	38	0.1	ND
2014	ND	1	0	0	ND	31	0	2B
2015	11	1	0	0	1	35	0	2B
2016	10	0	0	0	0	53	0	NA
2017	336	1	0	0	1	335	0	1E

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	3.3	100%	100%	100%	ND	ND	83.3%	ND
2014	3.8	100%	100%	98.4%	ND	ND	100%	ND
2015	3.7	100%	100%	100%	10	20%	100%	100%
2016	4.2	100%	100%	100%	427	6.6%	100%	100%
2017	3.5	85.7%	100%	100%	336	0%	100%	100%

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 surveillance and laboratory performance indicators,

		Discarded non- rubella rate	% 1st sub- national unit with ≥ 2 discarded cases	% cases with adequate laboratory investigtion	% origin of infection known	# specimen tested for rubella	% positive for rubella	Rate of viral detection	% WHO and proficient labs
20	013	3.3	100%	100%	0%	ND	ND	ND	ND
20	014	4.5	100%	100%	100%	ND	ND	ND	ND
20	015	3.7	100%	100%	100%	11	0.1%	100%	100%
20	016	4.4	100%	100%	NA	427	0%	NA	100%
20	017	3.53	85.7%	100%	100%	336	0%	100%	100%

Source: AGC 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

#### Surveillance performance indicators and targets

- a. Rate of discarded cases: at least 2 discarded measles or rubella cases per 100 000 population
- b. % cases with adequate laboratory investigation: ≥ 80%
- c. % origin of infection known: ≥ 80%
- d. Rate of viral detection: ≥ 80%

