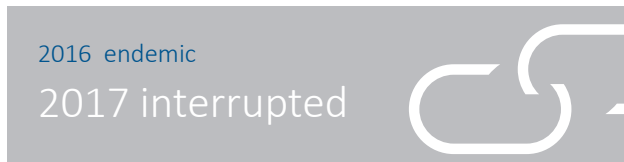


# Measles and rubella elimination country profile

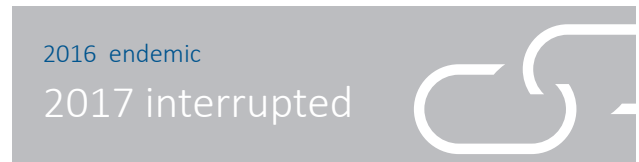
## Kazakhstan

### Measles elimination status



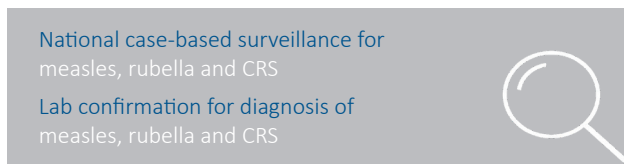
Source: European Regional Verification Commission for Measles and Rubella Elimination (RVC) meeting report: [www.euro.who.int/7thrv](http://www.euro.who.int/7thrv)

### Rubella elimination status



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

### Measles and rubella surveillance



Source: WHO/UNICEF Joint Reporting Form on Immunization, 2017

### Demographic information, 2017

Total population	18 204 499
< 1 year old	367 131
< 5 years old	1 970 474

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

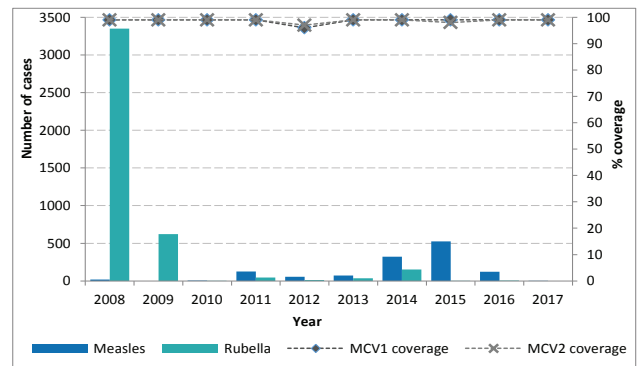
### Measles and rubella immunization schedule, 2017

	Vaccine	Schedule	Year of introduction	
MCV1	MMR	1 year	MCV2	1995
MCV2	MMR	6 years	RCV	2004
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 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/](http://www.who.int/immunization/monitoring_surveillance/data/en/))

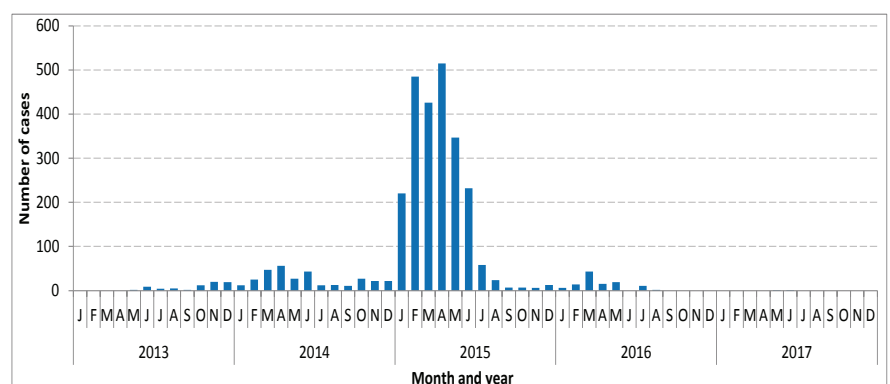
MCV1 = first dose of measles-containing vaccine  
MCV2 = second dose of measles-containing vaccine

### Definition used for an outbreak



Source: Measles and rubella elimination Annual Status Update report, 2017  
ND = Data not available

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

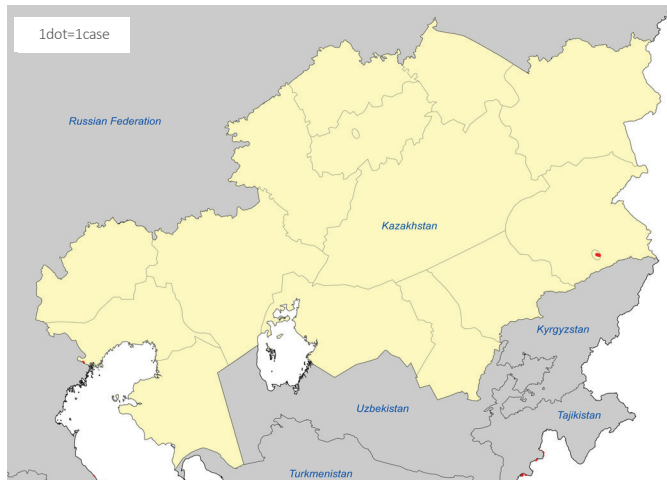


Source: CISD 2017



# Measles and rubella elimination country profile Kazakhstan

## Measles cases by first subnational level, 2017



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

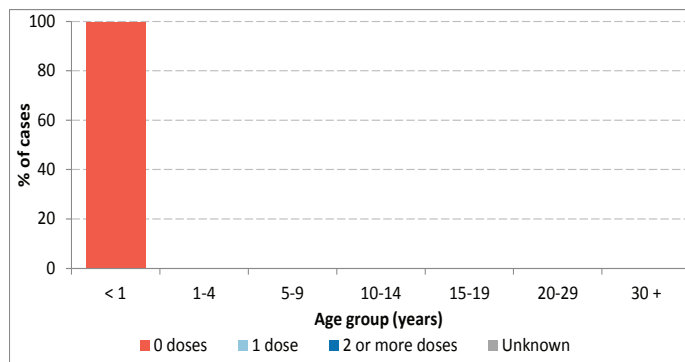
## Measles genotypes by first subnational level, 2017



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

## Sources of infection, 2017

	Measles	Rubella
Imported	2	0
Import-related	0	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

## Supplementary immunization activities

Year	Target age	Vaccine used	% Coverage
2015	15-19Y	M	43%

Source: Supplementary immunization activities, 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/))  
M = measles vaccine  
ND = Data not available

# Measles and rubella elimination country profile Kazakhstan

## 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	165	73	0	0	73	92	4.3	D8
2014	619	274	27	20	321	298	18.8	D8
2015	2803	1815	346	177	2341	462	132.5	B3,D8
2016	247	122	0	0	122	125	6.9	H1
2017	73	2	0	0	2	71	0.1	D8,H1

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	0.6	12.5%	100%	100%	НД	НД	14%	ND
2014	1.8	18.8%	95.6%	14.6%	594	46.1%	0	ND
2015	2.4	50%	100%	80%	2277	79.7%	0	100%
2016	0.7	6.2%	100%	100%	247	49.4%	100%	100%
2017	0.3	0%	100%	100%	73	2.7%	ND	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	72	34	0	2	36	36	1.6	ND
2014	531	13	0	139	152	379	8.9	ND
2015	40	1	0	1	2	38	0.1	ND
2016	43	4	0	0	4	39	0.2	ND
2017	73	0	0	0	0	73	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	0.2	0%	94%	100%	ND	ND	0	ND
2014	2.9	37.5%	100%	91.4%	531	2.5%	0	ND
2015	0.2	0%	100%	50%	39	2.6%	0	100%
2016	0.2	0%	100%	100%	43	9.3%	0	100%
2017	0.3	0%	100%	NA	71	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) agrees with the NVC conclusion that measles and rubella endemic transmission was interrupted in 2017, and commends the national verification committee for measles and rubella elimination (NVC), national health authorities and public health system on achieving interruption of endemic measles and rubella transmission. Surveillance quality should be improved by increasing surveillance sensitivity and the representativeness of reporting discarded cases.

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