# Measles and rubella elimination country profile
# Spain

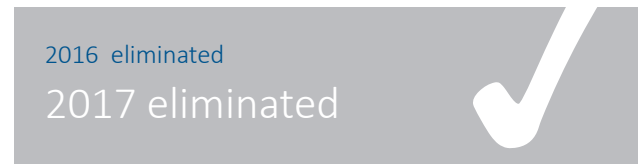## Measles elimination status
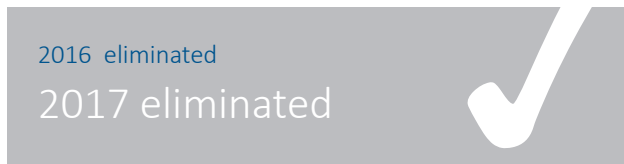
2016  eliminated
## 2017 eliminated ✓

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

## Rubella elimination status

2016  eliminated
## 2017 eliminated ✓

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

## Measles and rubella surveillance

National case-based surveillance for
ND

Lab confirmation for diagnosis of
ND
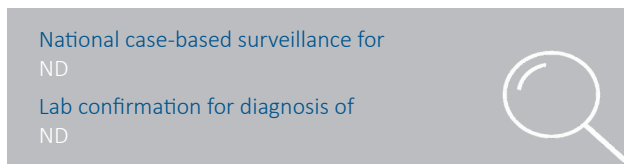
Source: WHO/UNICEF Joint Reporting Form on Immunization, 2017
ND = Data not available

## Demographic information, 2017

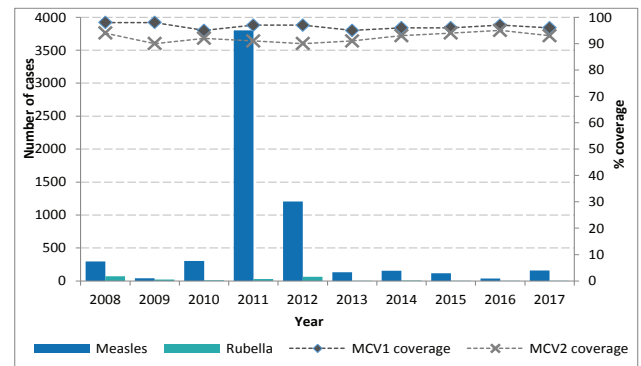| Total population | 46 354 321 |
| --- | --- |
| < 1 year old | 377 132 |
| < 5 years old | 2 016 949 |

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

## Measles and rubella immunization schedule, 2017

| | Vaccine | Schedule | Year of introduction | |
| --- | --- | --- | --- | --- |
| MCV1 | MMR | 12 months | MCV2 | 1996 |
| MCV2 | MMR | 3-4 years | RCV | 1978 |
| 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

## Definition used for an outbreak

2 or more confirmed cases which are temporally related (with dates of rash onset occurring between 7 and 18 days apart for meales, and 12 and 46 days apart for rubella) and epidemiologically or virologically linked or both

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

## 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
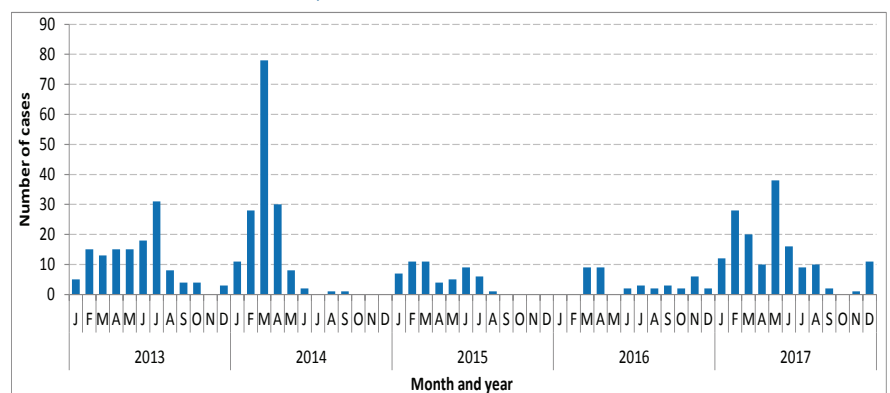


Source: CISID 2017

## Measles cases by first subnational level, 2017

1dot=1case



Portugal
France
Spain
Andorra
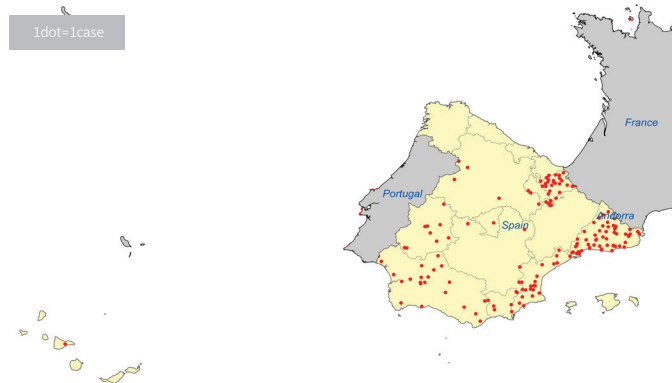
Source:  Measles and rubella elimination Annual Status Update report, 2017

## Measles genotypes by first subnational level, 2017

- B3
- D8
- H1
- D4



Portugal
France
Spain
Andorra
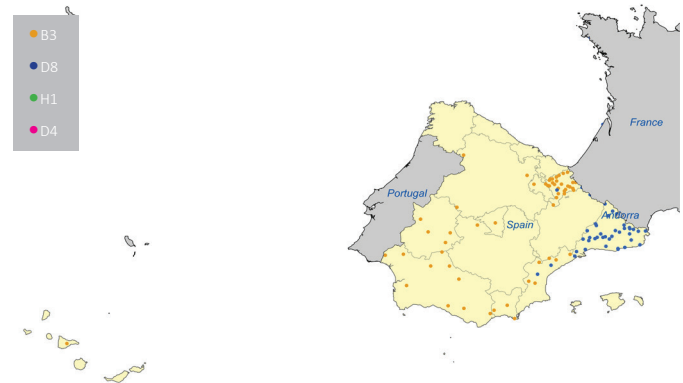
Source: MeaNS 2017

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



% of cases — Age group (years): < 1, 1-4, 5-9, 10-14, 15-19, 20-29, 30 +

Legend: ■ 0 doses  ■ 1 dose  ■ 2 or more doses  ■ Unknown
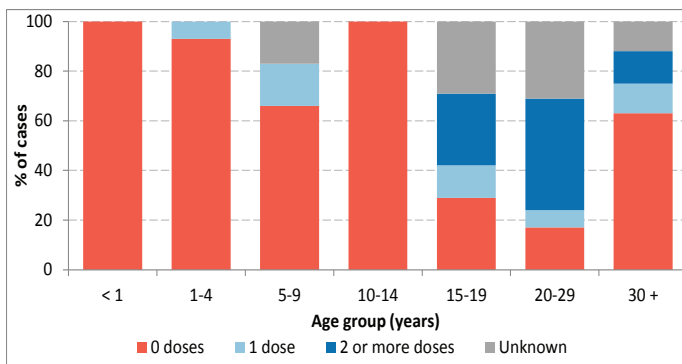
Source:  Measles and rubella elimination Annual Status Update report, 2017
Note: Excludes imported cases

## Sources of infection, 2017

|  | Measles | Rubella |
|---|---|---|
| Imported | 23 | 1 |
| Import-related | 136 | 0 |
| Unknown/ Not reported | 1 | 0 |
| Endemic | 0 | 0 |

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

## Information on CRS, 2017

No cases reported

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

## 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 | 217 | 109 | 14 | 8 | 131 | 86 | 2.5 | B3,D8 |
| 2014 | 339 | 150 | 3 | 6 | 159 | 181 | 3.3 | B3,D8 |
| 2015 | 115 | 32 | 3 | 2 | 37 | 78 | 0.8 | B3,D8,H1 |
| 2016 | 98 | 27 | 8 | 0 | 35 | 63 | 0.8 | B3,D8 |
| 2017 | 303 | 151 | 7 | 2 | 160 | 143 | 2.9 | B3,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 | 18% | 0% | 92.2% | 96.2% | 324 | 49% | 68.8% | ND |
| 2014 | 38% | ND | 98.8% | 96.2% | 383 | 50% | 100% | ND |
| 2015 | 17% | ND | 90.4% | 86.5% | 158 | 32% | 100% | 100% |
| 2016 | 14% | 0% | 91.8% | 97% | 135 | 33% | 100% | 100% |
| 2017 | 0.0 | 5.3 | 96.4% | 99.4% | 428 | 35.3% | 87.5% | 31.5% |

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 | 17 | 2 | 0 | 0 | 2 | 16 | 0 | 2B |
| 2014 | 22 | 3 | 0 | 2 | 5 | 18 | 0.0 | 1J |
| 2015 | 29 | 3 | 1 | 0 | 4 | 25 | 0.1 | 2B |
| 2016 | 10 | 2 | 0 | 0 | 2 | 8 | 0.0 | ND |
| 2017 | 16 | 1 | 0 | 0 | 1 | 15 | 0.0 | ND |

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 | 0% | 94.1% | 100% | 26 | 12% | ND | ND |
| 2014 | 0 | ND | 86.4% | 60% | 30 | 37% | 100% | ND |
| 2015 | 0.1 | ND | 93.1% | 50% | 30 | 30% | ND | 100% |
| 2016 | 0 | ND | 100% | 100% | 13 | 23% | ND | 100% |
| 2017 | 0.0 | 0 | 100% | 100% | 22 | 4.5% | NA | 27.3% |

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) concluded that endemic transmission of both measles and rubella remained interrupted in Spain in 2017 and confirmed that measles and rubella elimination has been sustained. Surveillance performance and sensitivity need to be strengthened and better documented. The RVC reminds national health authorities of the requirement to have specimens from suspected cases tested either in WHO-accredited laboratory or in laboratories with documented high proficiency.

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

## 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%