# Measles, Rubella and Congenital Rubella Syndrome (CRS) Country Profile

**Belize**

Pan American Health Organization

## Introduction

The measles and rubella country profile aims to facilitate the analysis of data compiled in the last five years. This profile was only developed for those countries who officially reported vaccination coverage and case by case surveillance and laboratory data to the Pan American Health Organization (PAHO). There may be minor differences in the country profile if the country has updated data that was not reported to PAHO. The country profile will be automatically updated twice per year: at the end of April (surveillance data) and at the end of September (vaccination coverage data).

> **Note**
>
> The latest update dates for this country profile are available in the ***Update dates*** section.

## General Information

Table 1: Demographic data, 2023.

| Demographic group | Population |
|---|---|
| 1 year of age | 7,129 |
| Total population | 410,826 |

Table 2: Last endemic cases by year and disease.

| Measles | Rubella | CRS |
|---|---|---|
| 1991 | 2001 | 1997 |

Table 3: Vaccination schedule.

| Vaccine | 1st Dose | 2nd Dose | MMR2 Year Introduced |
|---|---|---|---|
| MMR | 12 mo | 18 mo | 2005 |

Table 4: Accumulation of susceptibles for measles and rubella.

| Year of the last follow-up campaign | Vaccine used (M, MR, MMR) | Age group vaccinated | Number vaccinated (numerator) | Coverage of the follow-up campaign (B/C)*100 | Number of susceptibles 1-4 years of age | Year of next campaign |
|---|---|---|---|---|---|---|
| 2005 | MMR | 5-35 yrs | 64,792 | 97 | 637 | ND |
| NR | NR | NR | NA | NA | NA | NR |

## Epidemiology and Quality of Surveillance

Figure 1: Distribution of suspected MR cases and notification rate at the national level, 2019-2023.

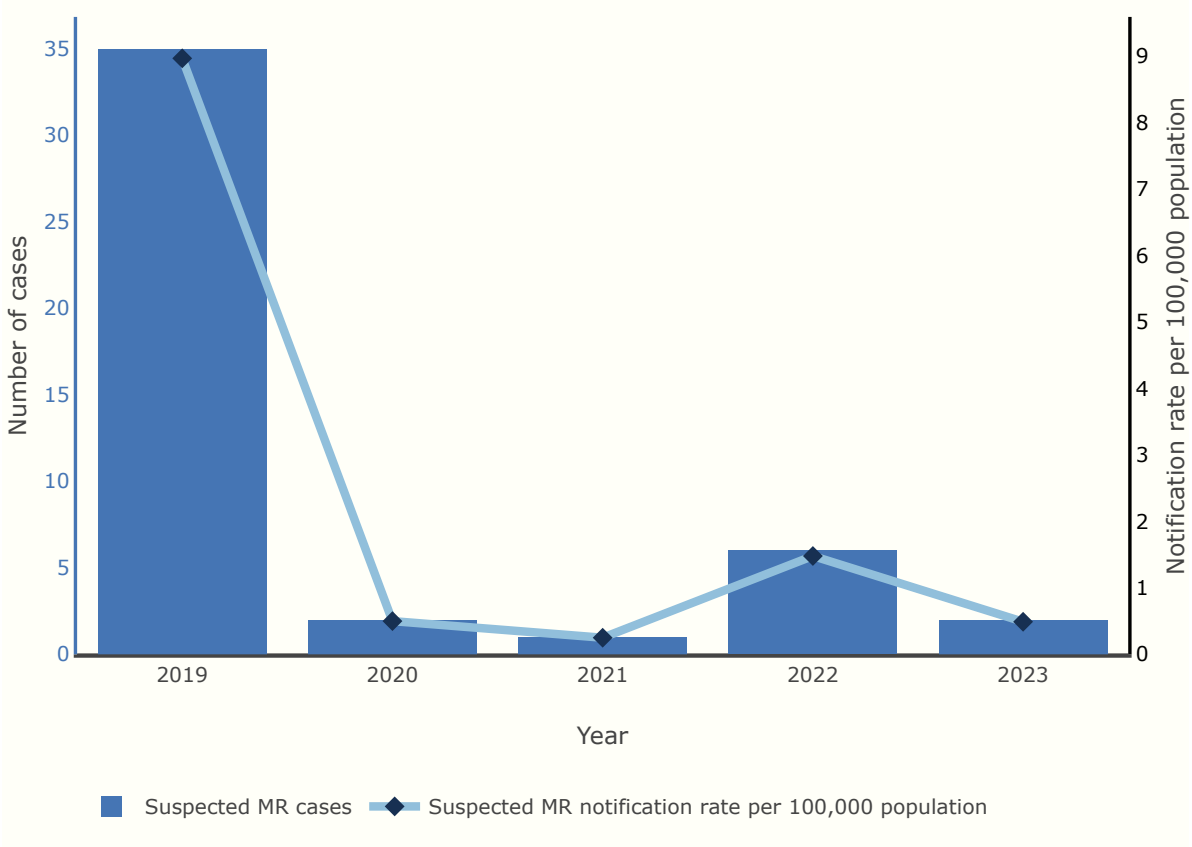



Table 5: Distribution of suspected MR cases and notification rate at the national level, 2019-2023.

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|
| Suspected MR cases | 35 | 2 | 1 | 6 | 2 |
| Suspected MR notification rate per 100,000 population | 8.97 | 0.5 | 0.25 | 1.48 | 0.49 |

Figure 2: Distribution of suspected CRS cases and notification rate at the national level, 2019-2023.

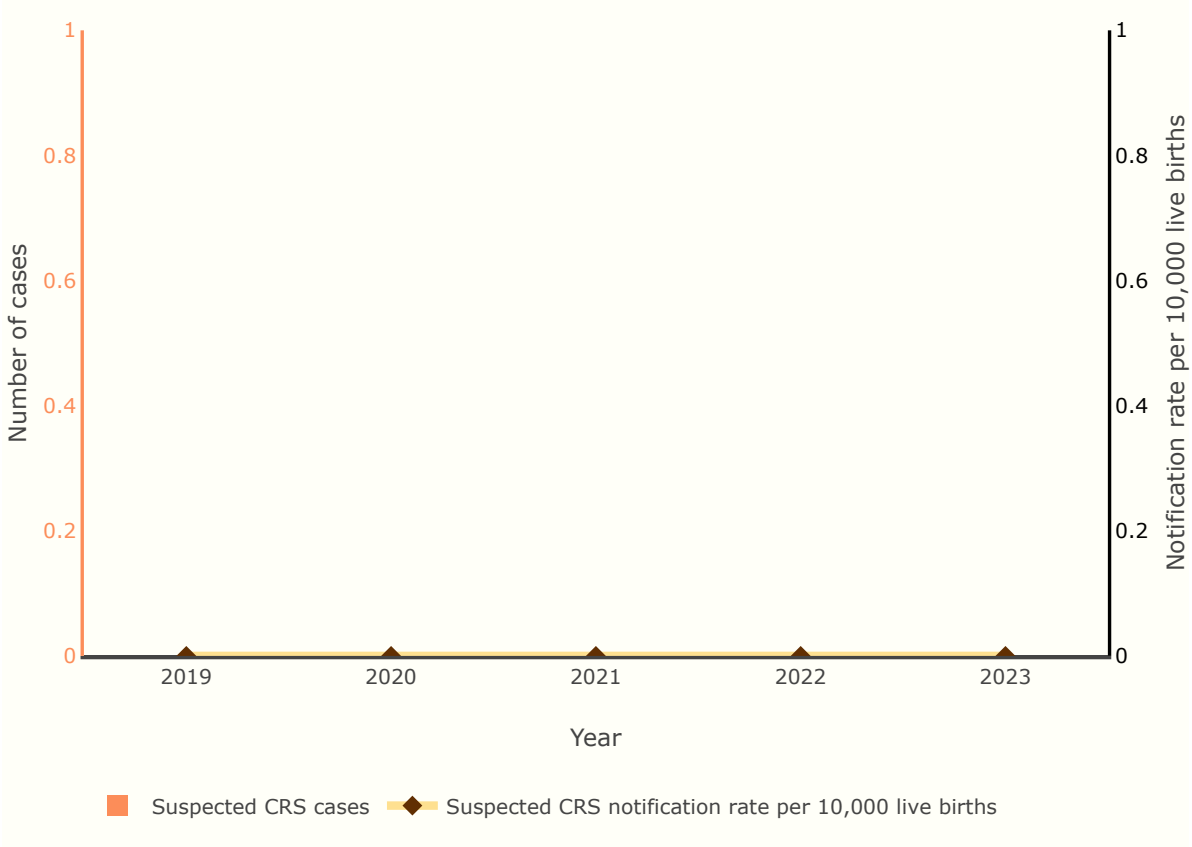



Table 6: Distribution of suspected CRS cases and notification rate at the national level, 2019-2023.

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|
| Suspected CRS cases | 0 | 0 | 0 | 0 | 0 |
| Suspected CRS notification rate per 10,000 live births | 0 | 0 | 0 | 0 | 0 |

Figure 3: Reported cases of measles and rubella by epidemiological week and final classification: confirmed, discarded and under investigation, 2019-2023.

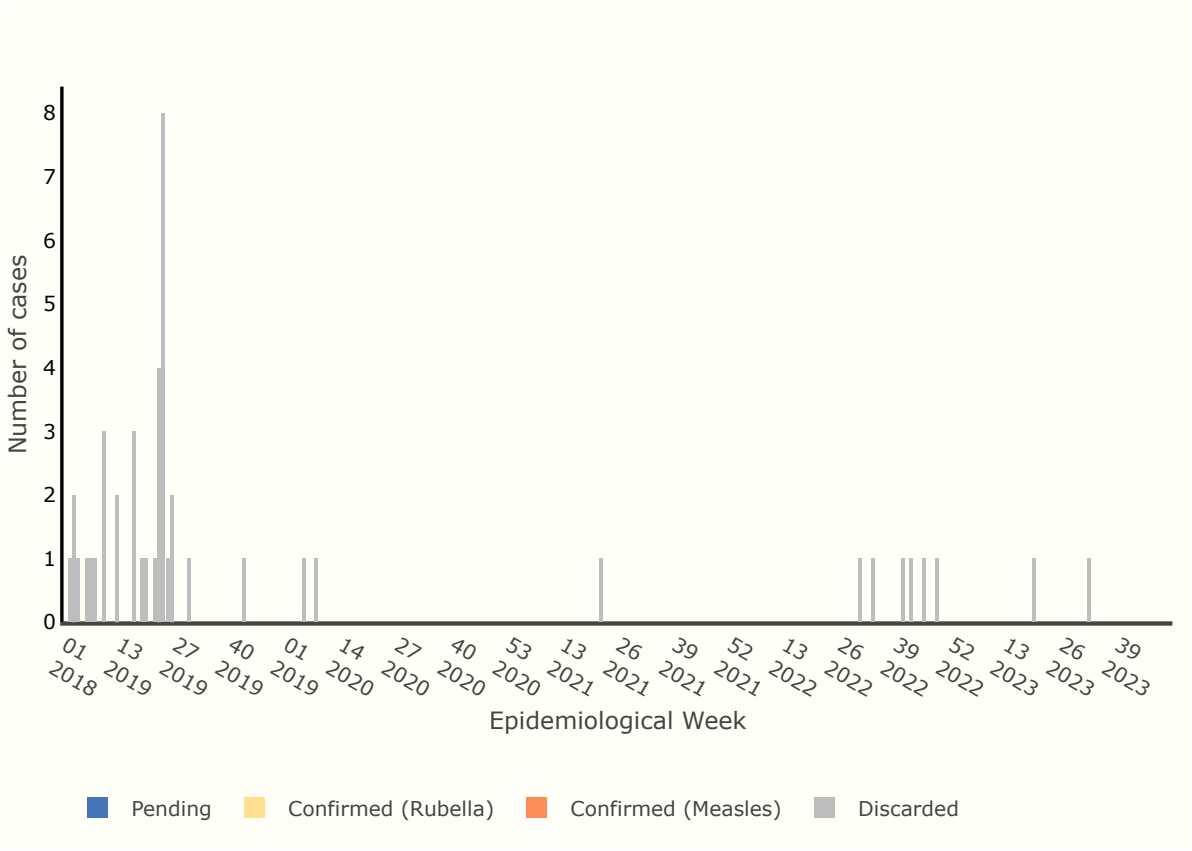


Figure 4: Reported cases of measles and rubella by year and final classification: confirmed, discarded and under investigation, 2019-2023.

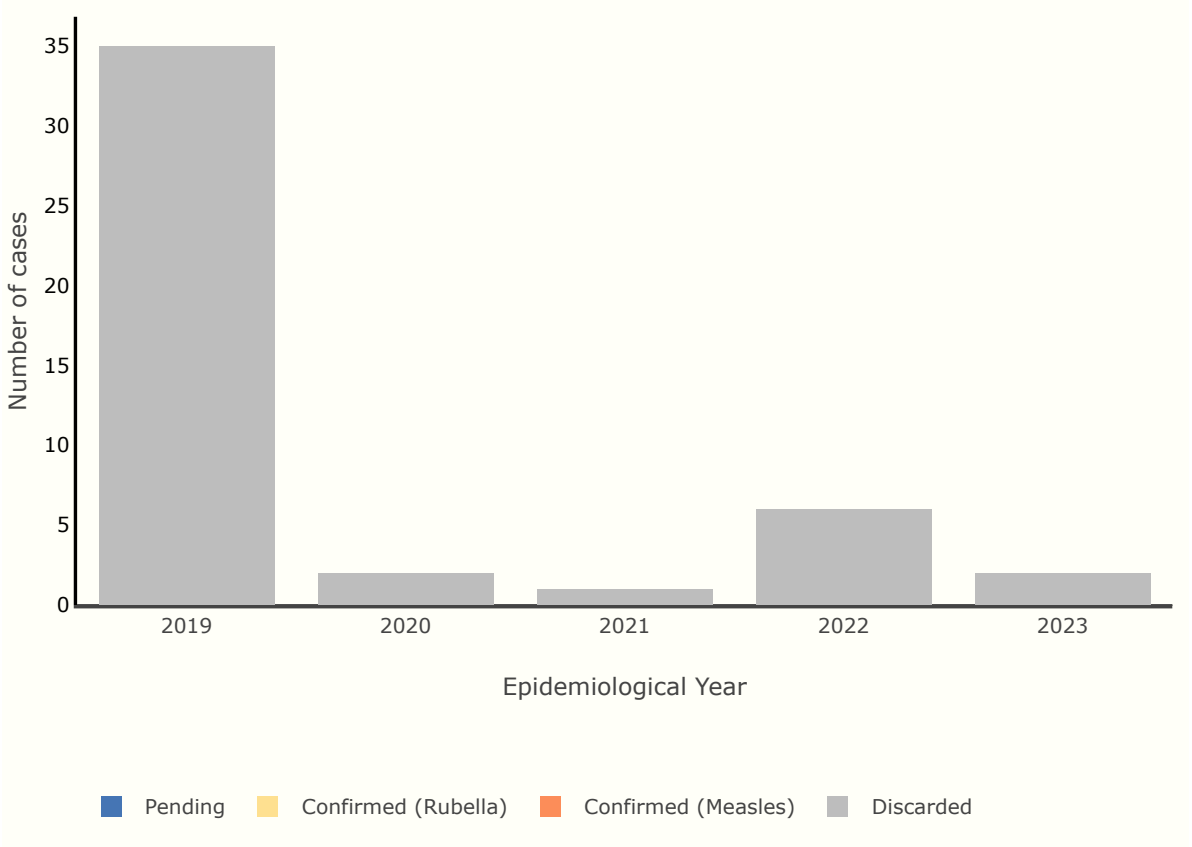



Table 7: Reported cases of measles and rubella by epidemiological year and final classification, 2019-2023.

| Classification | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|
| Confirmed (Measles) | 0 | 0 | 0 | 0 | 0 |
| Confirmed (Rubella) | 0 | 0 | 0 | 0 | 0 |
| Pending | 0 | 0 | 0 | 0 | 0 |
| Discarded | 35 | 2 | 1 | 6 | 2 |
| Total | 35 | 2 | 1 | 6 | 2 |

Figure 5: Distribution of reported measles and rubella cases and incidence rate by age group, 2019-2023.

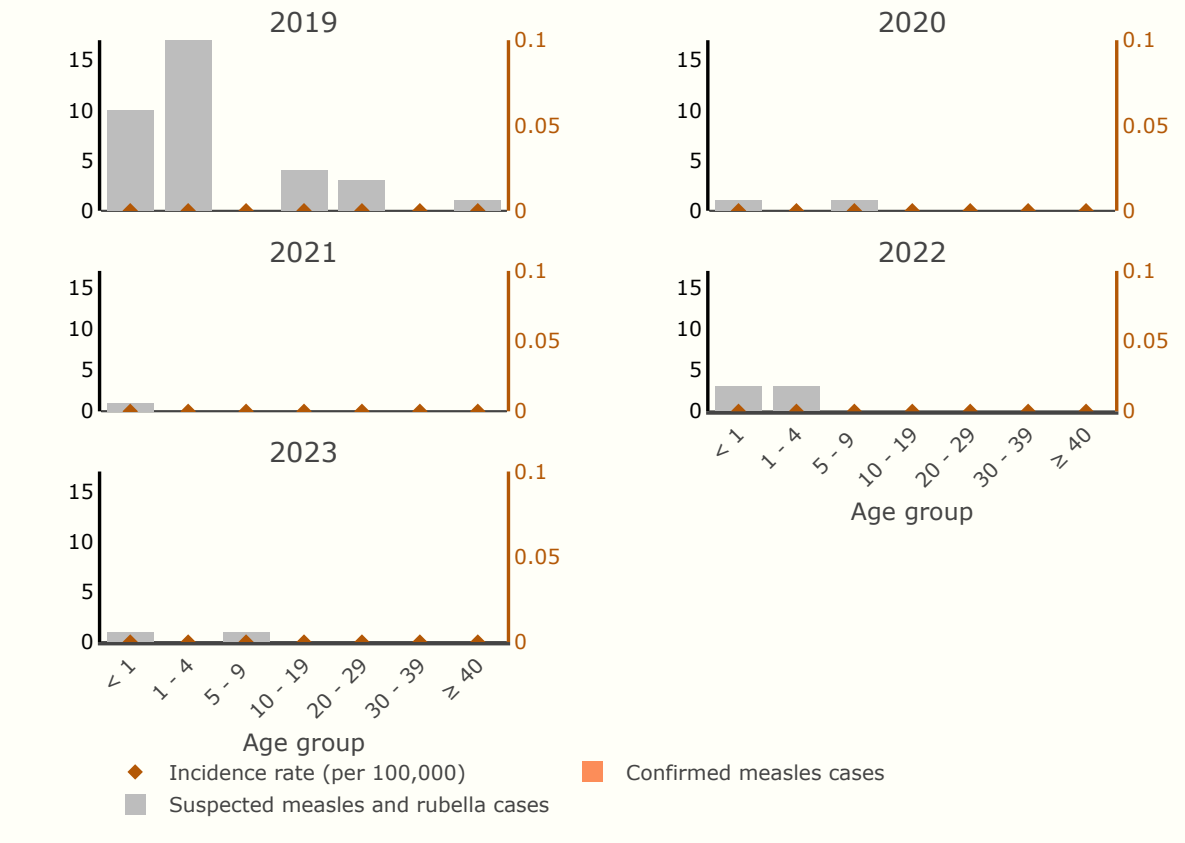


Figure 6: Performance indicators of measles and rubella surveillance by year, 2019-2023.

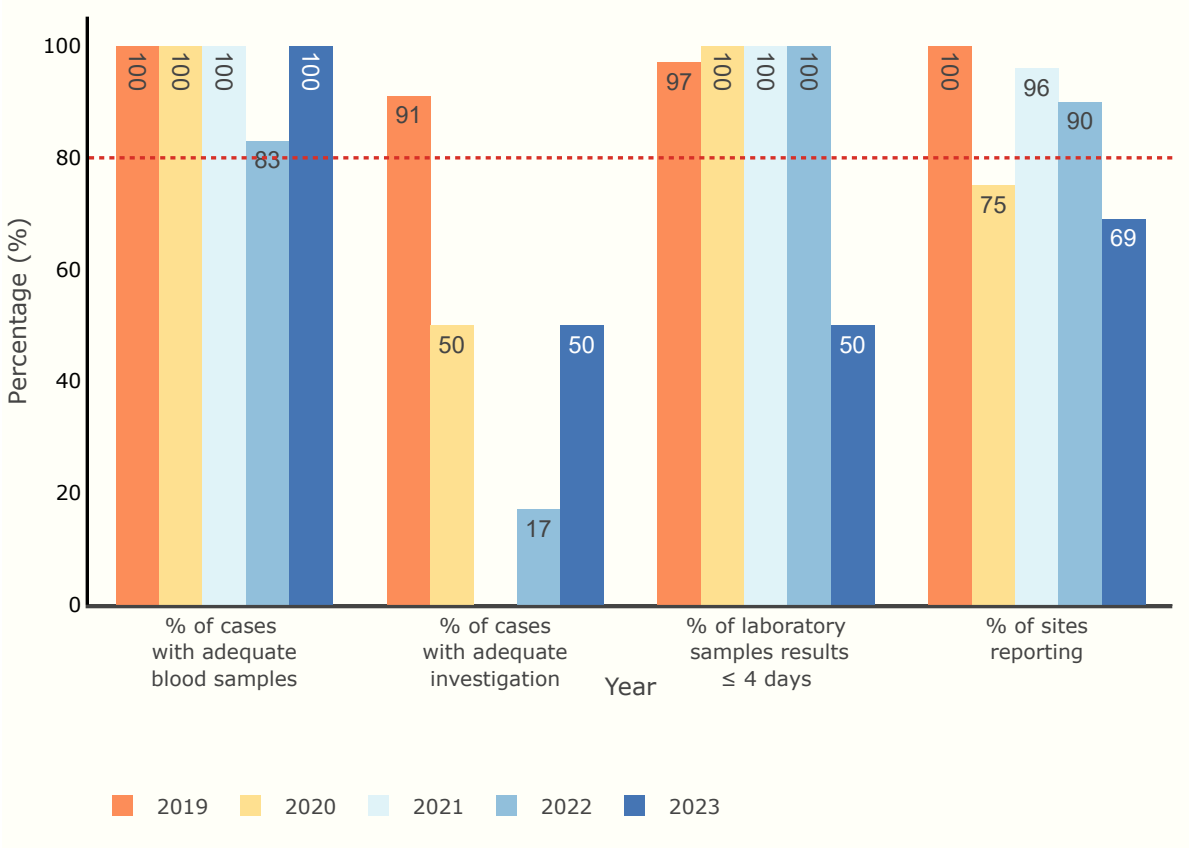


Figure 7: Proportion of the 11 variables reported for adequate investigation indicator, 2023.

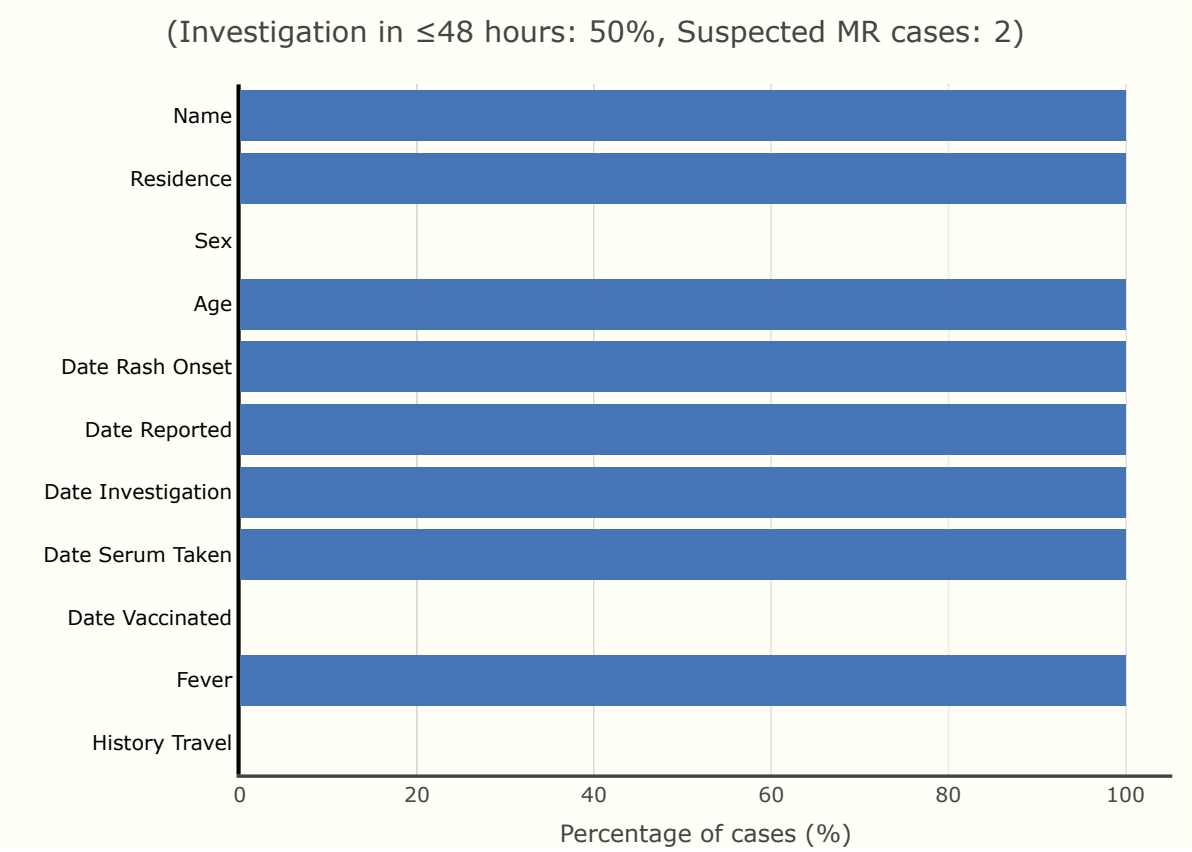



Table 8: Municipalities reporting measles and rubella suspected cases by year, 2019-2023.

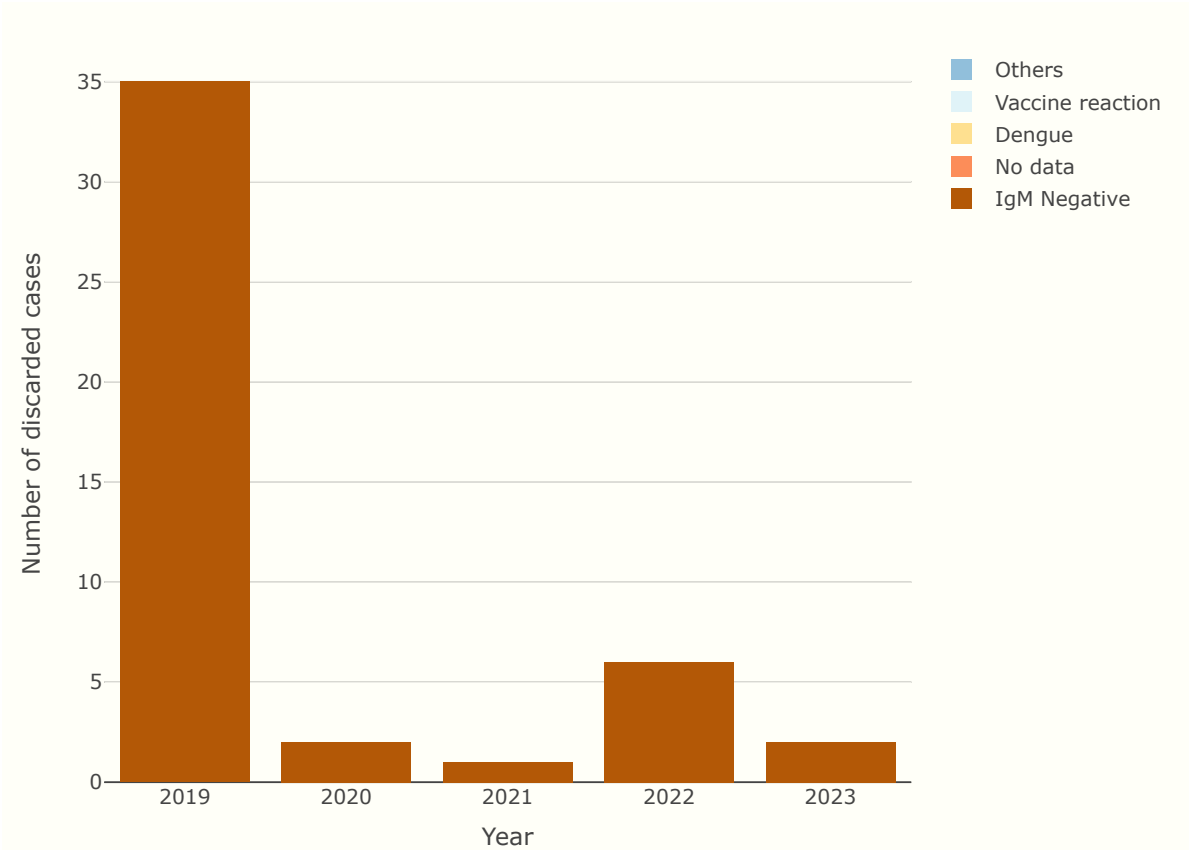
| Year | No. of municipalities reporting suspected cases | Total municipalities in the country | % of municipalities reporting suspected cases |
|---|---|---|---|
| 2019 | 6 | 6 | 100 |
| 2020 | 1 | 6 | 17 |
| 2021 | 1 | 6 | 17 |
| 2022 | 4 | 6 | 67 |
| 2023 | 2 | 6 | 33 |

## Laboratory Surveillance

Table 9: Criteria used to discard suspected measles and rubella cases by year, 2019-2023.

| Year | No. of suspected cases reported | No. of discarded cases | Criteria for discarding | | | No. of cases discarded by other differential diagnosis | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | IgM Negative | No data | Others | Vaccine reaction | Dengue | Parvo virus | Herpes 6 | Allergic reaction | Others |
| 2019 | 35 | 35 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2020 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2021 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2022 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2023 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Figure 8: Distribution of discarded measles and rubella suspected cases by basis for discarding, 2019-2023.



## Analysis of Vaccination Coverage and Population Cohorts

Figure 9: Coverage of the first dose of measles-mumps-rubella (MMR1) vaccine, number of doses administered, and number of children 1 year of age, 2019-2023.

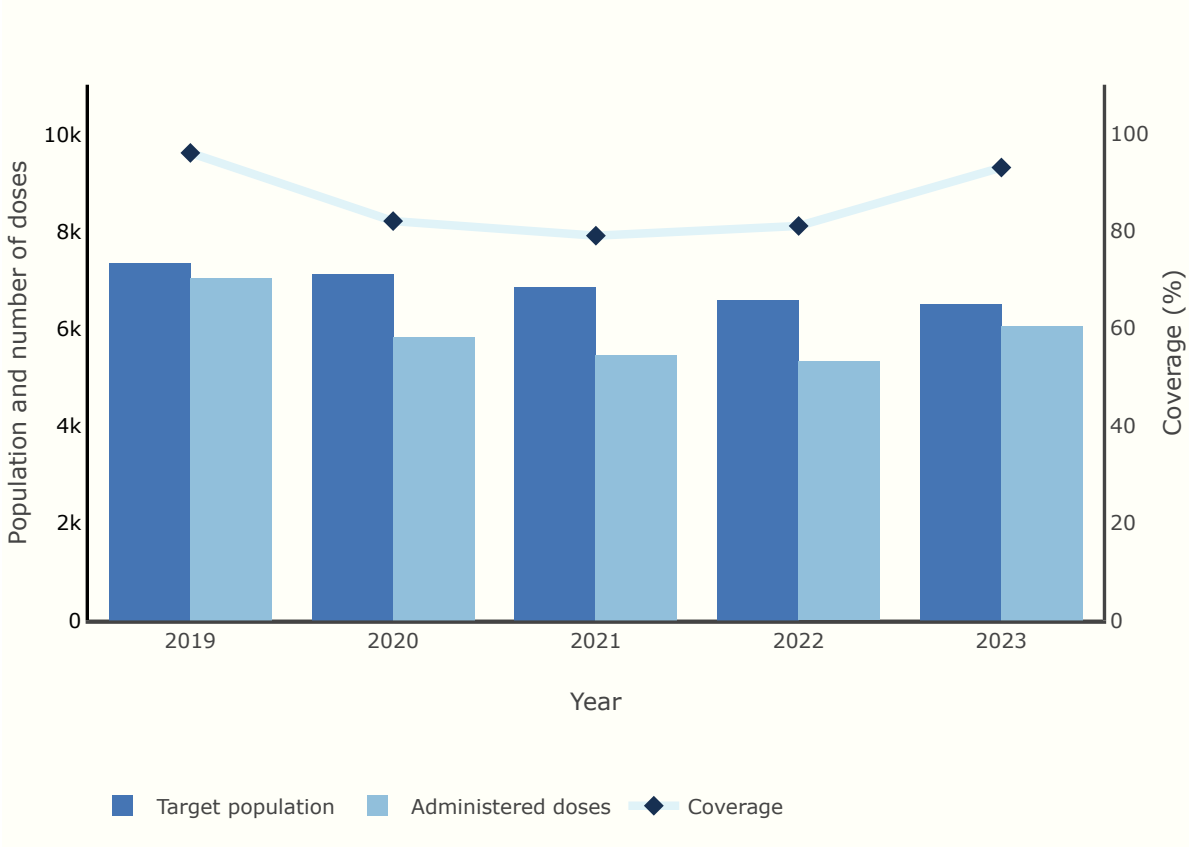


Figure 10: Coverage of the second dose of measles-mumps-rubella (MMR2) vaccine, number of doses administered, and number of children 18 month(s) of age, 2019-2023.

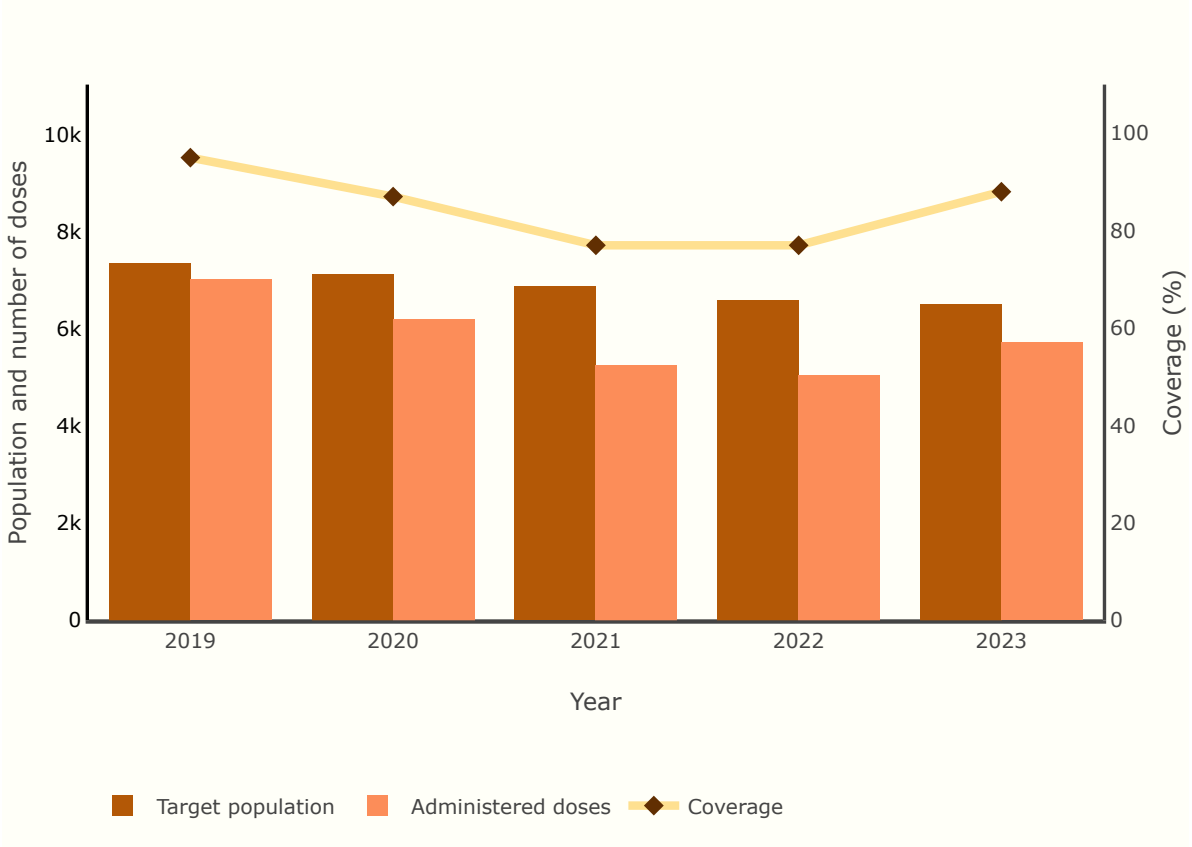



Table 10: Vaccination coverage with first and second dose of measles-mumps-rubella (MMR1 and MMR2) vaccines by target population and administered doses, 2019-2023.

| | MMR1 | | | MMR2 | | |
|---|---|---|---|---|---|---|
| Year | Administered doses | Target population | Coverage | Administered doses | Target population | Coverage |
| 2019 | 7,057 | 7,354 | 96 | 7,015 | 7,354 | 95 |
| 2020 | 5,840 | 7,135 | 82 | 6,207 | 7,135 | 87 |
| 2021 | 5,460 | 6,873 | 79 | 5,258 | 6,873 | 77 |
| 2022 | 5,332 | 6,599 | 81 | 5,047 | 6,599 | 77 |
| 2023 | 6,058 | 6,516 | 93 | 5,724 | 6,516 | 88 |

Figure 11: Proportion of municipalities by MMR1 vaccination coverage ranges, 2019-2023.

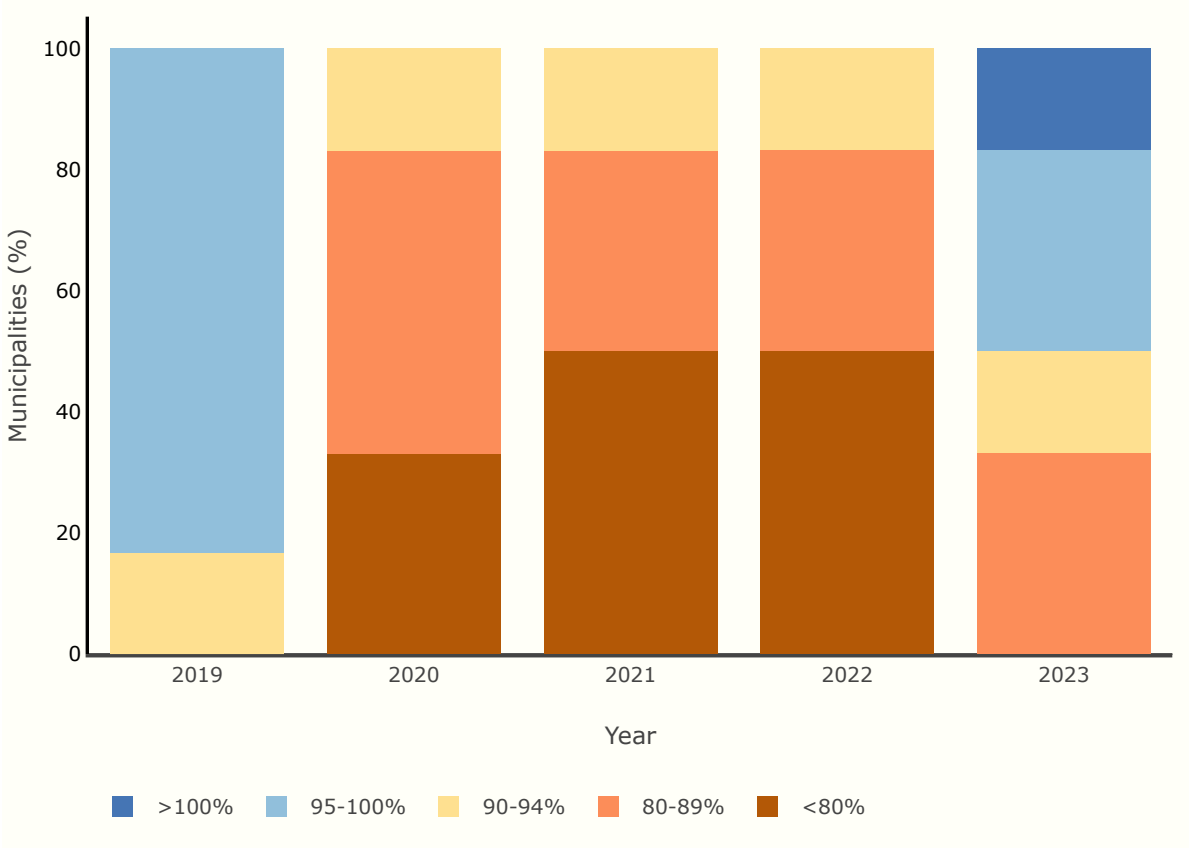


Figure 12: Proportion of children living in those municipalities for MMR1 vaccination coverage ranges, 2019-2023.

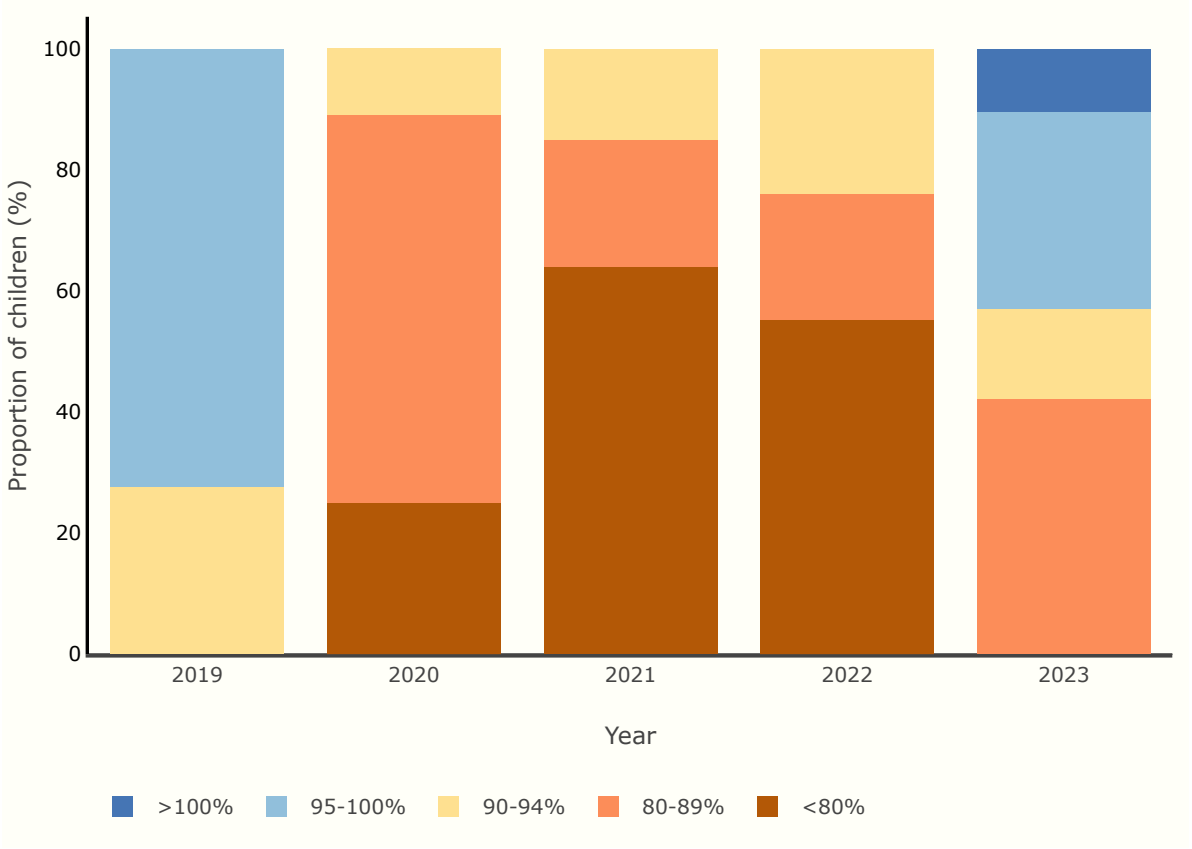


Figure 13: Proportion of municipalities by MMR2 vaccination coverage ranges, 2019-2023.

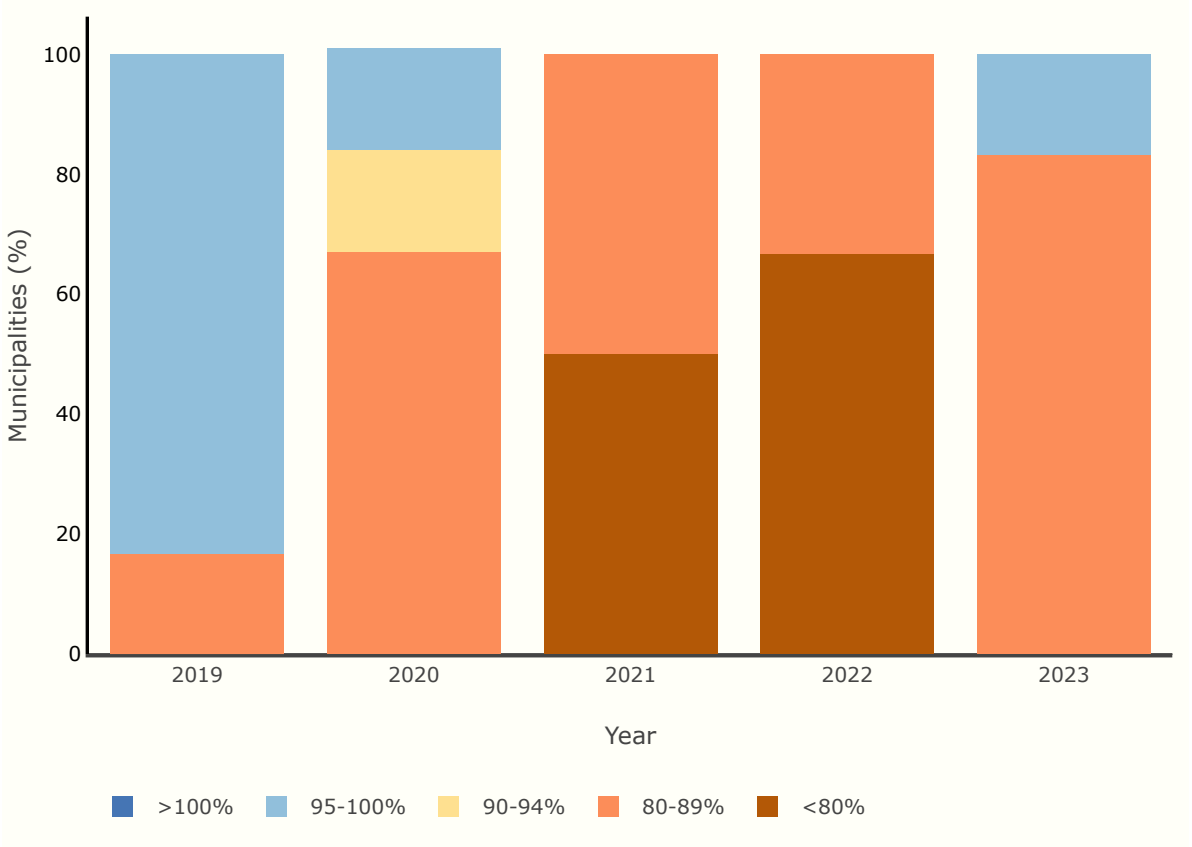


Figure 14: Proportion of children living in those municipalities for MMR2 vaccination coverage ranges, 2019-2023.

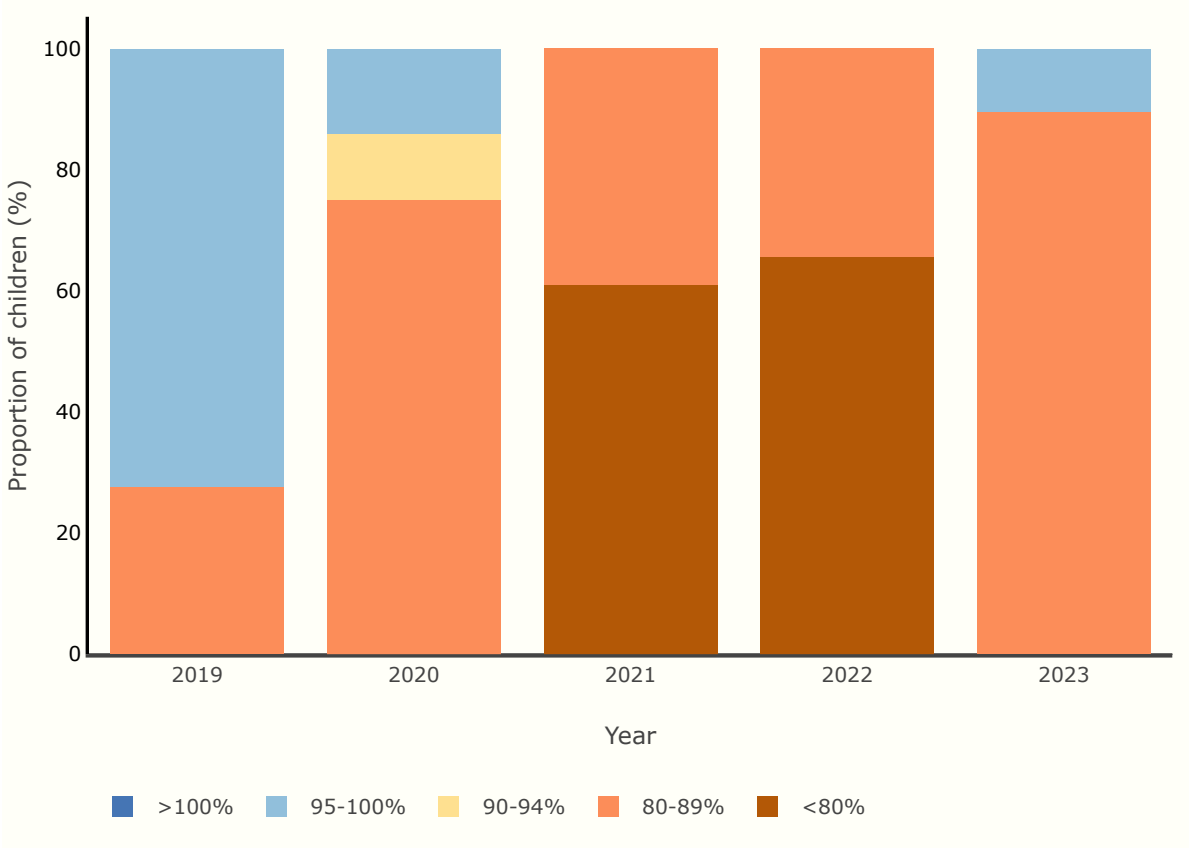



Table 11: Proportion of municipalities with MMR1 and MMR2 coverage ranges and proportion of children living in those municipalities, 2019-2023.

| | | MMR1 | | MMR2 | |
|---|---|---|---|---|---|
| Year | Coverage range (%) | MMR1 | MMR2 | MMR1 | MMR2 |
| 2023 | <80 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2023 | 80-89 | 33.3 | 42.2 | 89.6 | 83.3 |
| 2023 | 90-94 | 16.7 | 14.8 | 0.0 | 0.0 |
| 2023 | 95-100 | 33.3 | 32.5 | 10.4 | 16.7 |
| 2023 | >100 | 16.7 | 10.4 | 0.0 | 0.0 |
| 2022 | <80 | 50.0 | 55.2 | 65.6 | 66.7 |
| 2022 | 80-89 | 33.3 | 20.8 | 34.4 | 33.3 |
| 2022 | 90-94 | 16.7 | 23.9 | 0.0 | 0.0 |

| | | | | | |
|---|---|---|---|---|---|
| 2022 | 95-100 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2022 | >100 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2021 | <80 | 50.0 | 64.0 | 61.0 | 50.0 |
| 2021 | 80-89 | 33.0 | 21.0 | 39.0 | 50.0 |
| 2021 | 90-94 | 17.0 | 15.0 | 0.0 | 0.0 |
| 2021 | 95-100 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2021 | >100 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2020 | <80 | 33.0 | 25.0 | 0.0 | 0.0 |
| 2020 | 80-89 | 50.0 | 64.0 | 75.0 | 67.0 |
| 2020 | 90-94 | 17.0 | 11.0 | 11.0 | 17.0 |
| 2020 | 95-100 | 0.0 | 0.0 | 14.0 | 17.0 |
| 2020 | >100 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2019 | <80 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2019 | 80-89 | 0.0 | 0.0 | 27.7 | 16.7 |
| 2019 | 90-94 | 16.7 | 27.7 | 0.0 | 0.0 |
| 2019 | 95-100 | 83.3 | 72.3 | 72.3 | 83.3 |
| 2019 | >100 | 0.0 | 0.0 | 0.0 | 0.0 |

## References

| Section | Sources |
|---|---|
| General Information | [1] United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition.<br>[2] Country reports through the electronic PAHO-WHO/UNICEF Joint Reporting Form (eJRF). |
| Epidemiology and Quality of Surveillance | [3] Integrated Surveillance Information System (ISIS) and country reports to CIM/PAHO.<br>[2] Country reports through the electronic PAHO-WHO/UNICEF Joint Reporting Form (eJRF). |
| Laboratory Surveillance | [3] Integrated Surveillance Information System (ISIS) and country reports to CIM/PAHO. |
| Analysis of Vaccination Coverage and Population Cohorts | [2] Country reports through the electronic PAHO-WHO/UNICEF Joint Reporting Form (eJRF). |

## Update dates

The latest update dates for this country profile are shown below. Note that the ***Year of data*** reflects the year up to which the data are available, while the ***Latest update date*** reflects the date on which any amends, modifications and/or withdrawals of data from member countries or territories was performed.

| Data | Year of data | Latest update date |
|---|---|---|
| Surveillance | 2023 | 2024-10-16 |
| Coverage | 2023 | 2024-10-03 |