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

Costa Rica

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	60,526
Total population	5,212,173

Table 2: Last endemic cases by year and disease.

Measles	Rubella	CRS
1999	2001	2005

Table 3: Vaccination schedule.

Vaccine	1st Dose	2nd Dose	MMR2 Year Introduced
MMR	15 mo	4 yr	1992

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
2019	MMR	15 months-<10 years	590,090	95	31,045	2024

Epidemiology and Quality of Surveillance

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

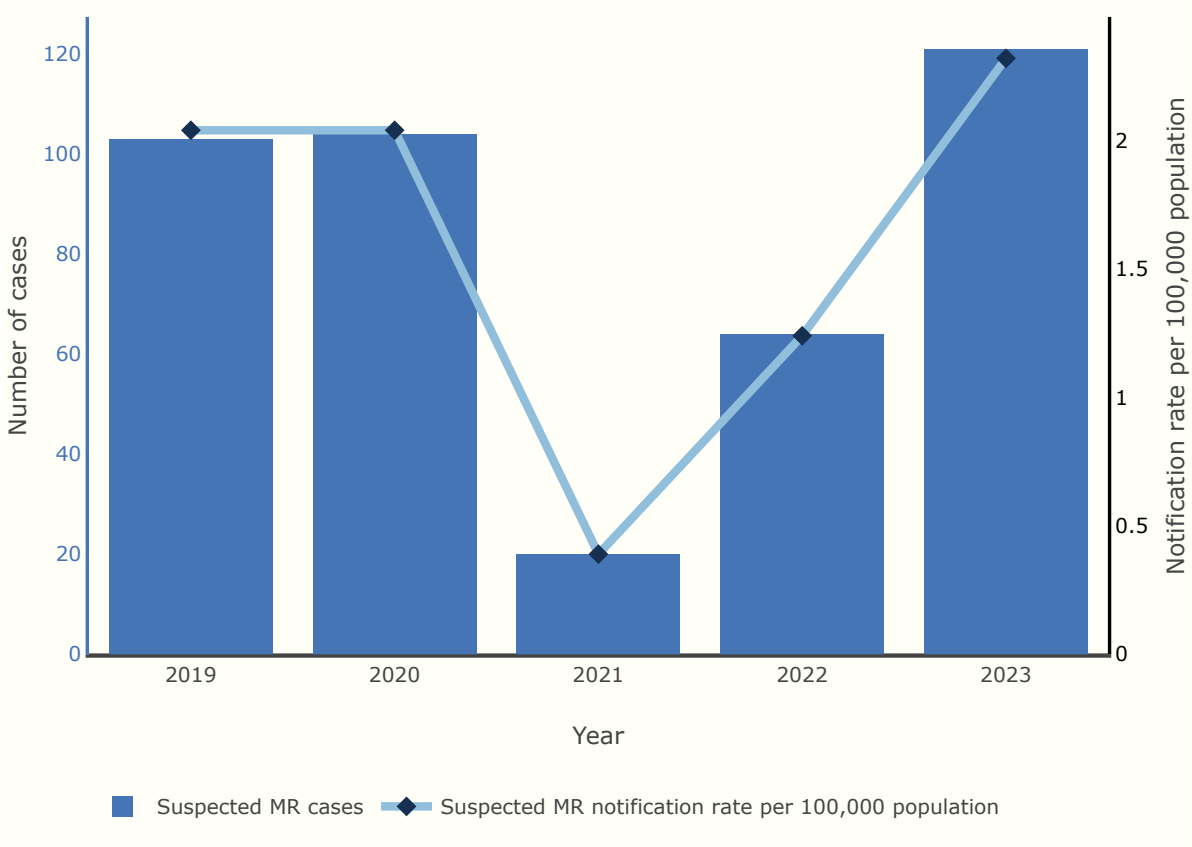


Table 5: Distribution of suspected MR cases and notification rate at the national level, 2019-2023.

	2019	2020	2021	2022	2023
Suspected MR cases	103	104	20	64	121
Suspected MR notification rate per 100,000 population	2.04	2.04	0.39	1.24	2.32

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

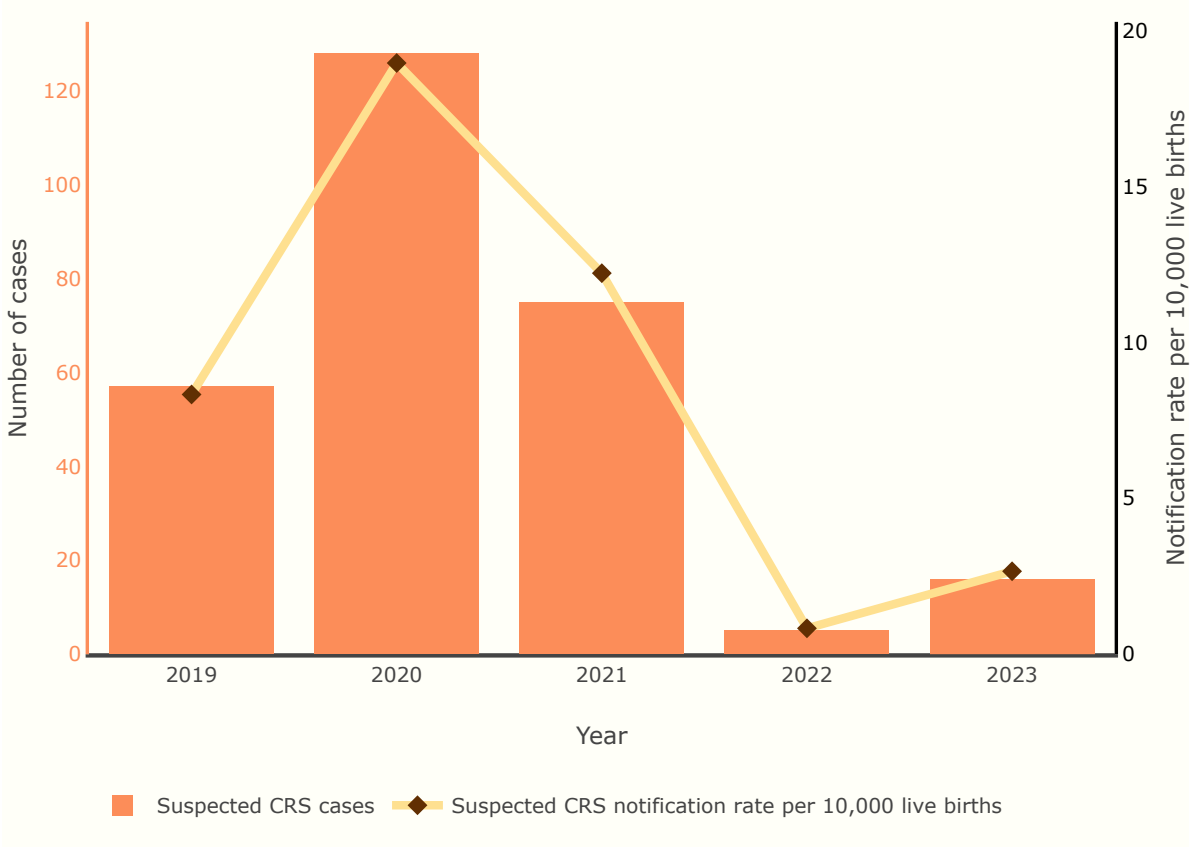


Table 6: Distribution of suspected CRS cases and notification rate at the national level, 2019-2023.

	2019	2020	2021	2022	2023
Suspected CRS cases	57	128	75	5	16
Suspected CRS notification rate per 10,000 live births	8.33	18.96	12.22	0.83	2.66

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

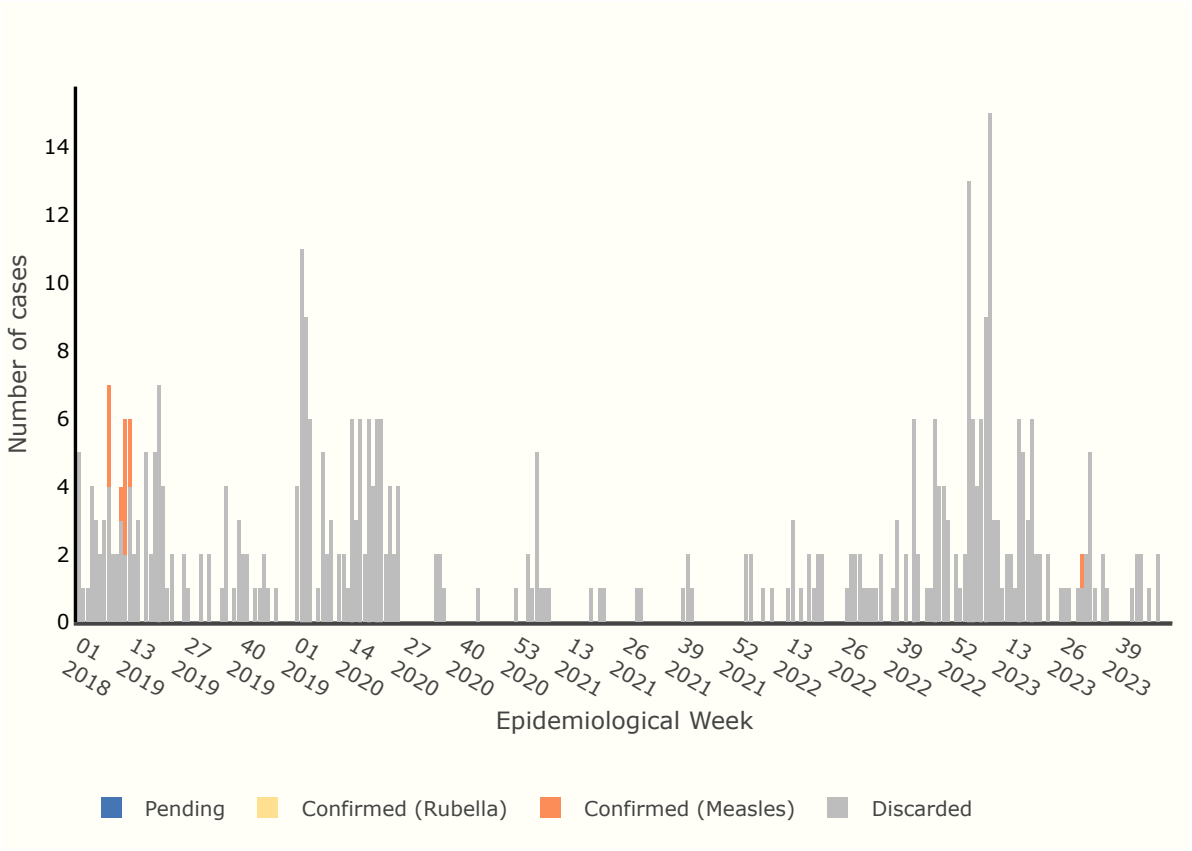


Figure 4: Reported cases of measles and rubella by year and final classification: confirmed, discarded and under investigation, 2019-2023.

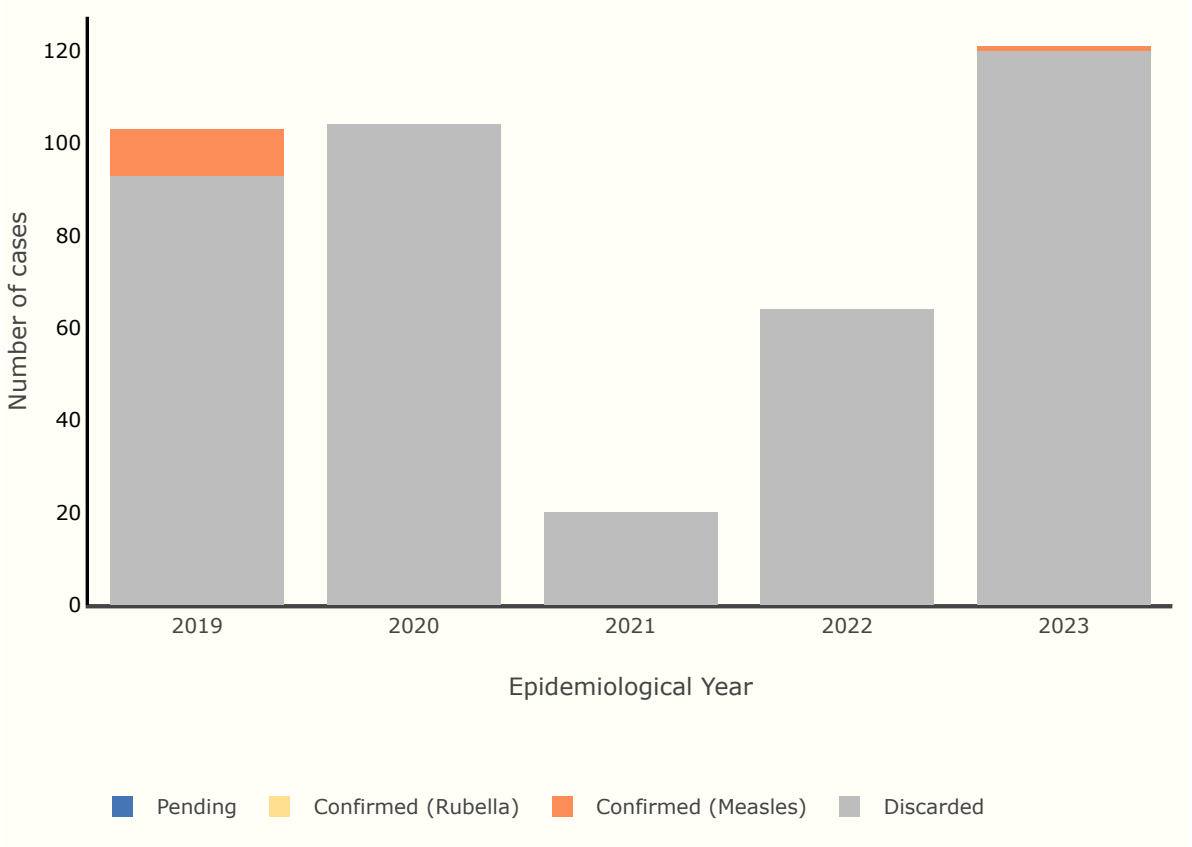


Table 7: Reported cases of measles and rubella by epidemiological year and final classification, 2019-2023.

Classification	2019	2020	2021	2022	2023
Confirmed (Measles)	10	0	0	0	1
Confirmed (Rubella)	0	0	0	0	0
Pending	0	0	0	0	0
Discarded	93	104	20	64	120
Total	103	104	20	64	121

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

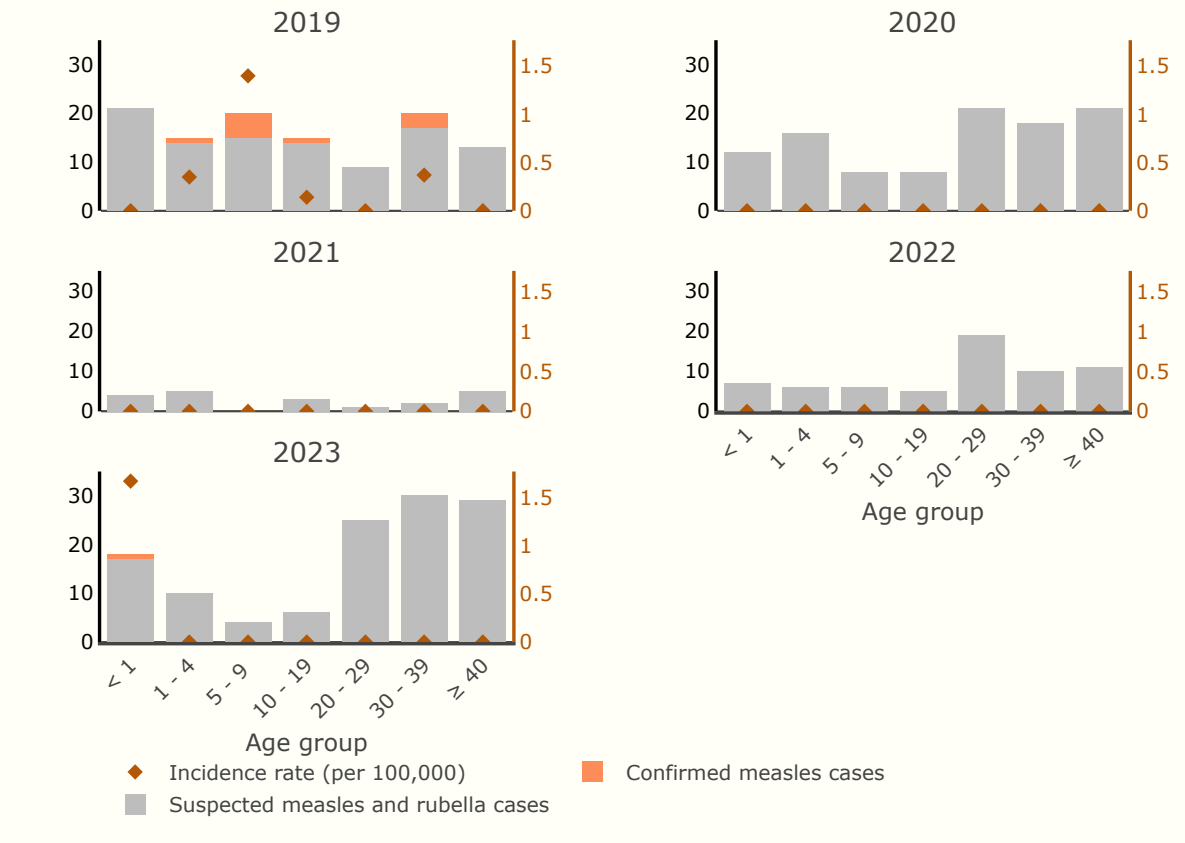


Figure 6: Performance indicators of measles and rubella surveillance by year, 2019-2023.

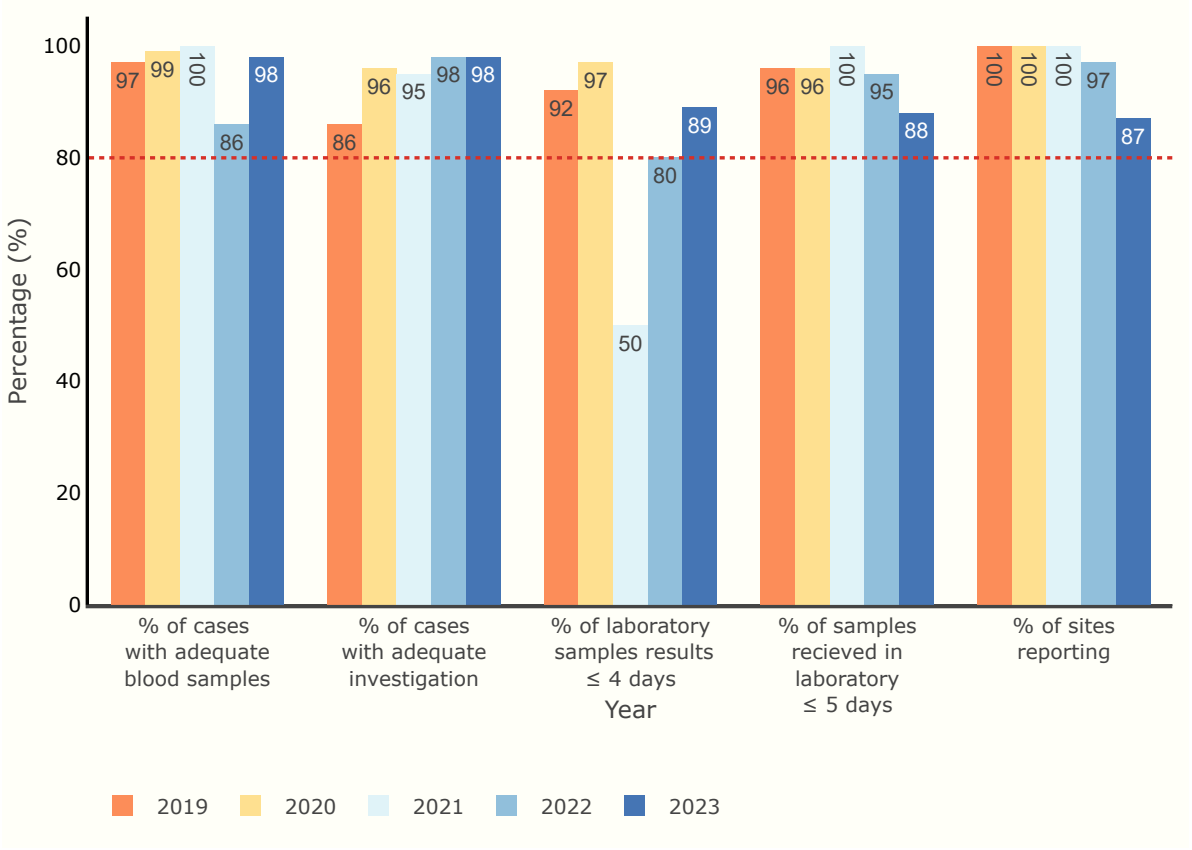


Figure 7: Proportion of the 11 variables reported for adequate investigation indicator, 2023.

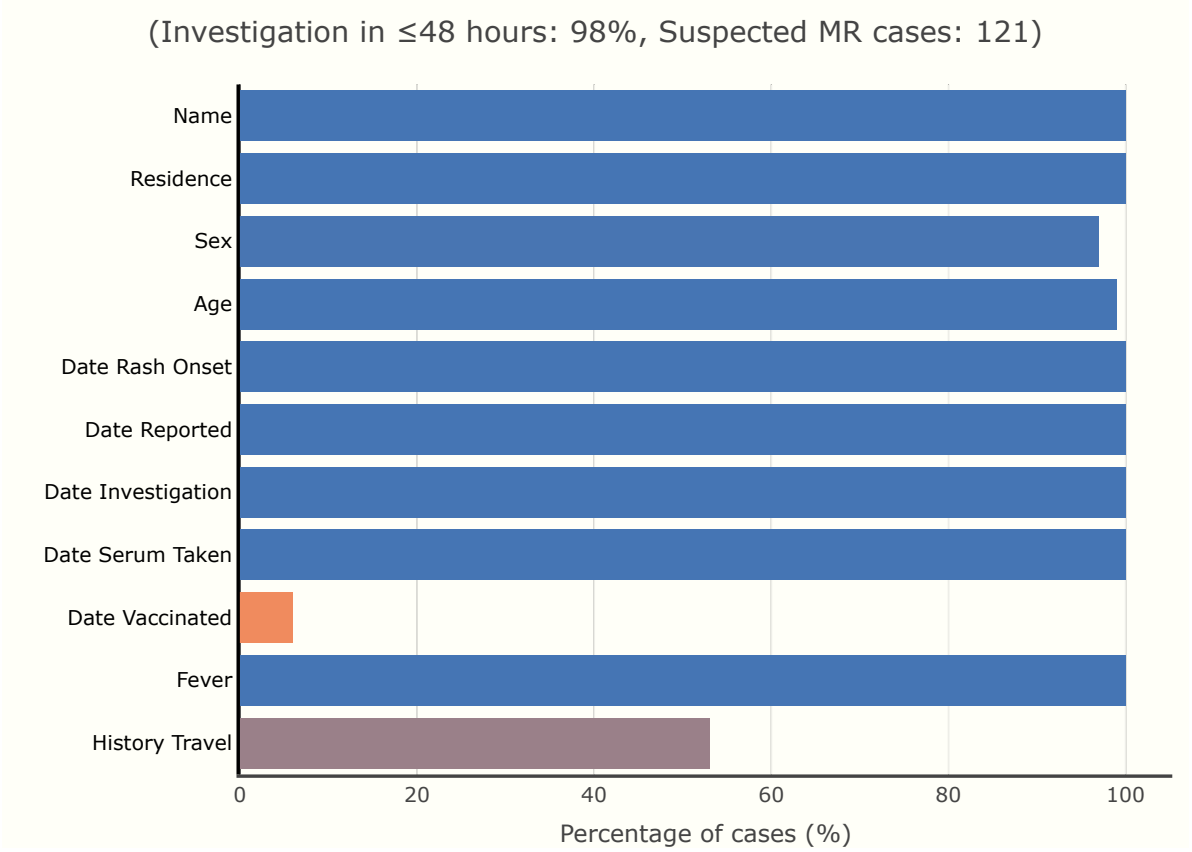


Table 8: Municipalities reporting measles and rubella suspected cases by year, 2019-2023.

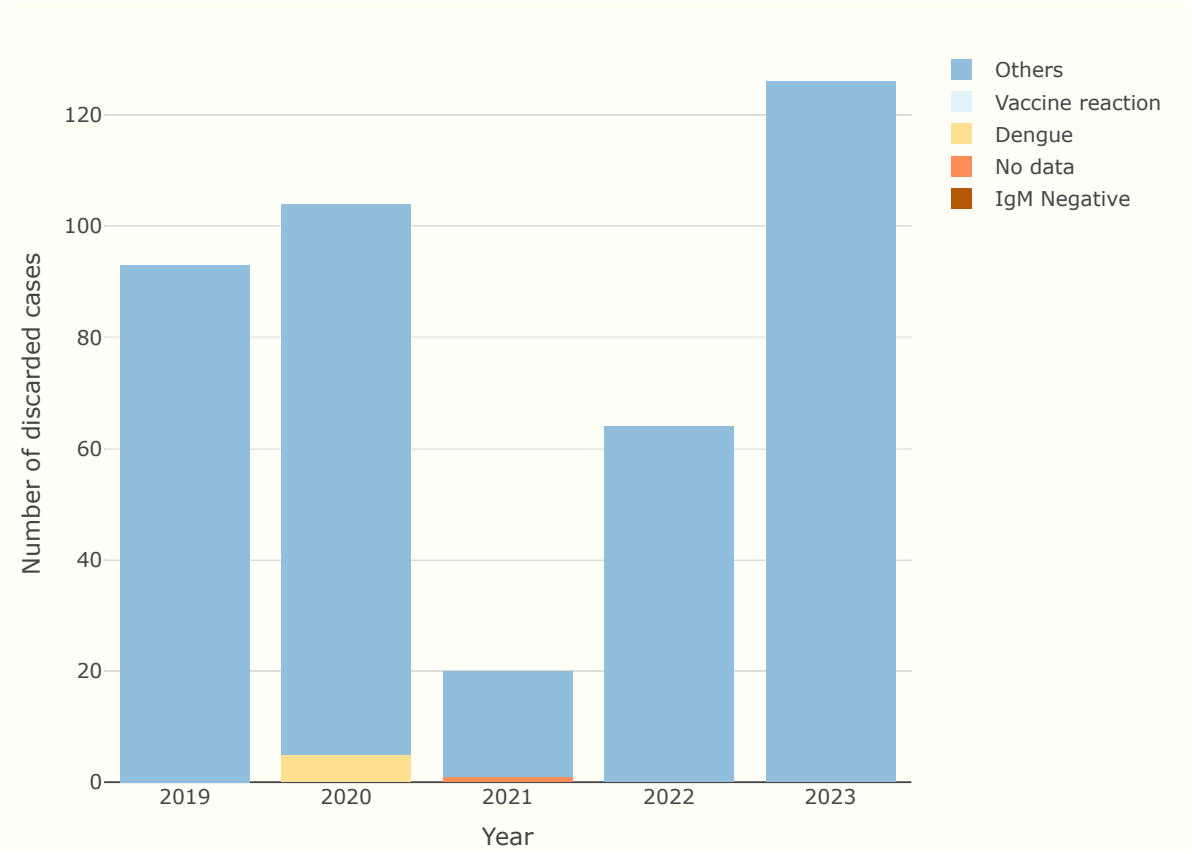
Year	No. of municipalities reporting suspected cases	Total municipalities in the country	% of municipalities reporting suspected cases
2019	40	81	49
2020	37	81	46
2021	14	81	17
2022	34	81	42
2023	43	82	52

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	103	93	0	0	93	0	0	7	37	12	37
2020	104	104	0	0	104	0	5	1	40	41	17
2021	20	20	0	1	19	0	0	2	4	10	3
2022	64	64	0	0	64	0	0	5	13	35	11
2023	127	126	0	0	126	0	0	12	27	67	20

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.

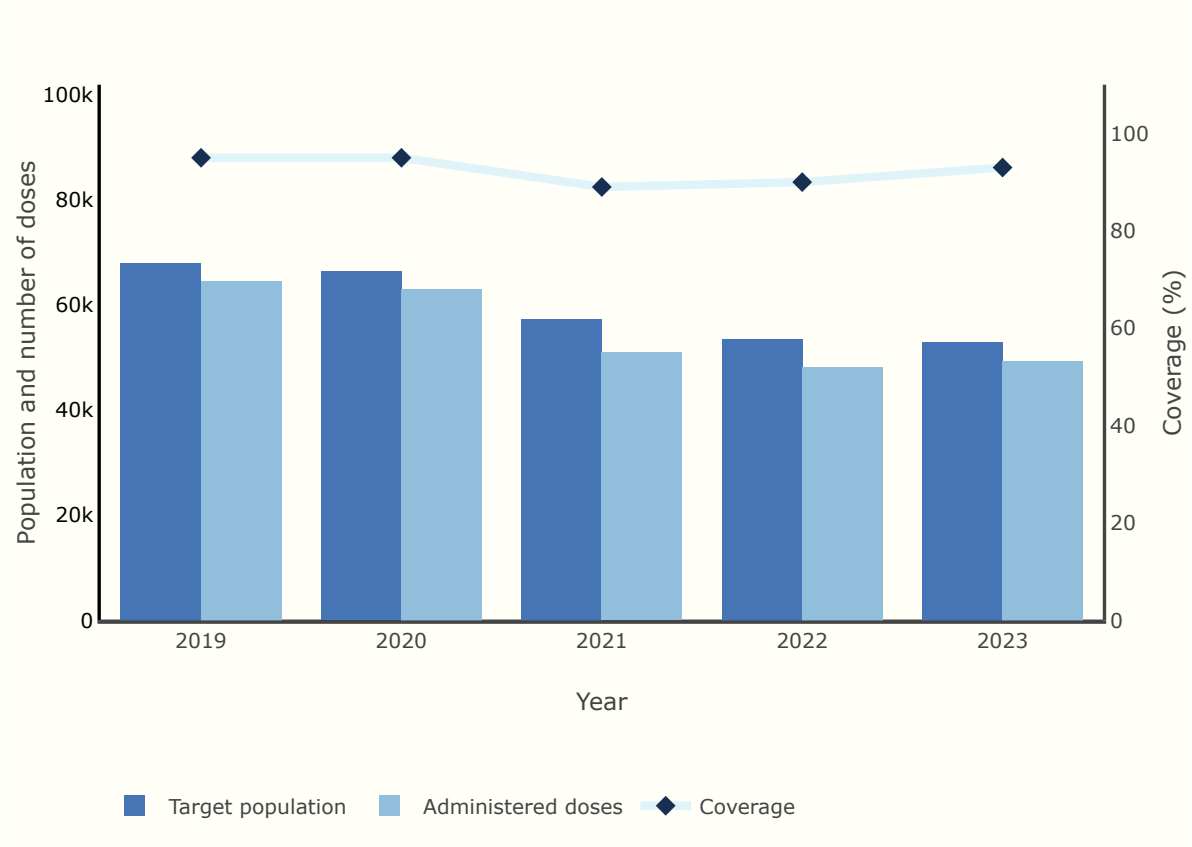


Figure 10: Coverage of the second dose of measles-mumps-rubella (MMR2) vaccine, number of doses administered, and number of children 4 year(s) of age, 2019-2023.

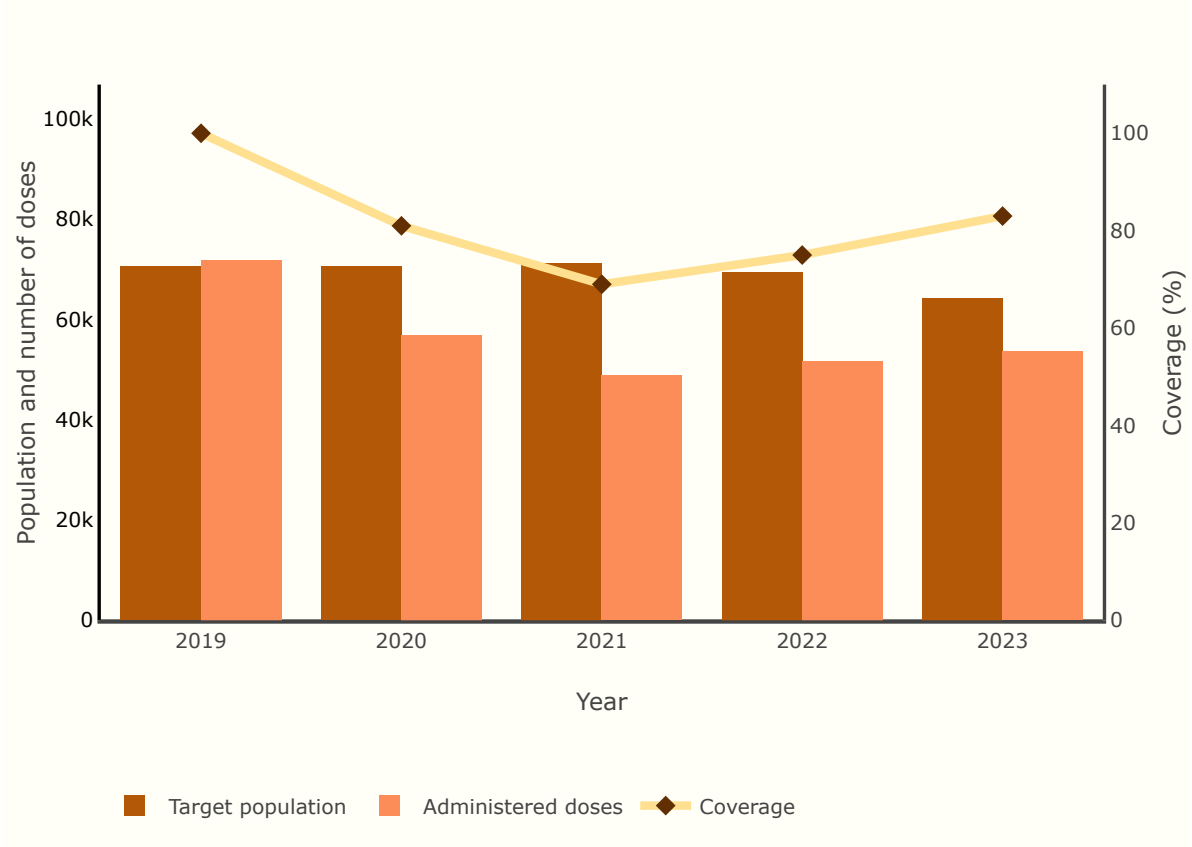


Table 10: Vaccination coverage with first and second dose of measles-mumps-rubella (MMR1 and MMR2) vaccines by target population and administered doses, 2019-2023.

	MMR1			MMR2		
Year	Administered doses	Target population	Coverage	Administered doses	Target population	Coverage
2019	64,607	67,906	95	71,898	70,550	100
2020	62,958	66,347	95	56,914	70,550	81
2021	50,940	57,386	89	48,835	71,212	69
2022	48,197	53,435	90	51,749	69,449	75
2023	49,364	52,923	93	53,617	64,274	83

Figure 11: Proportion of municipalities by MMR1 vaccination coverage ranges, 2018-2022.

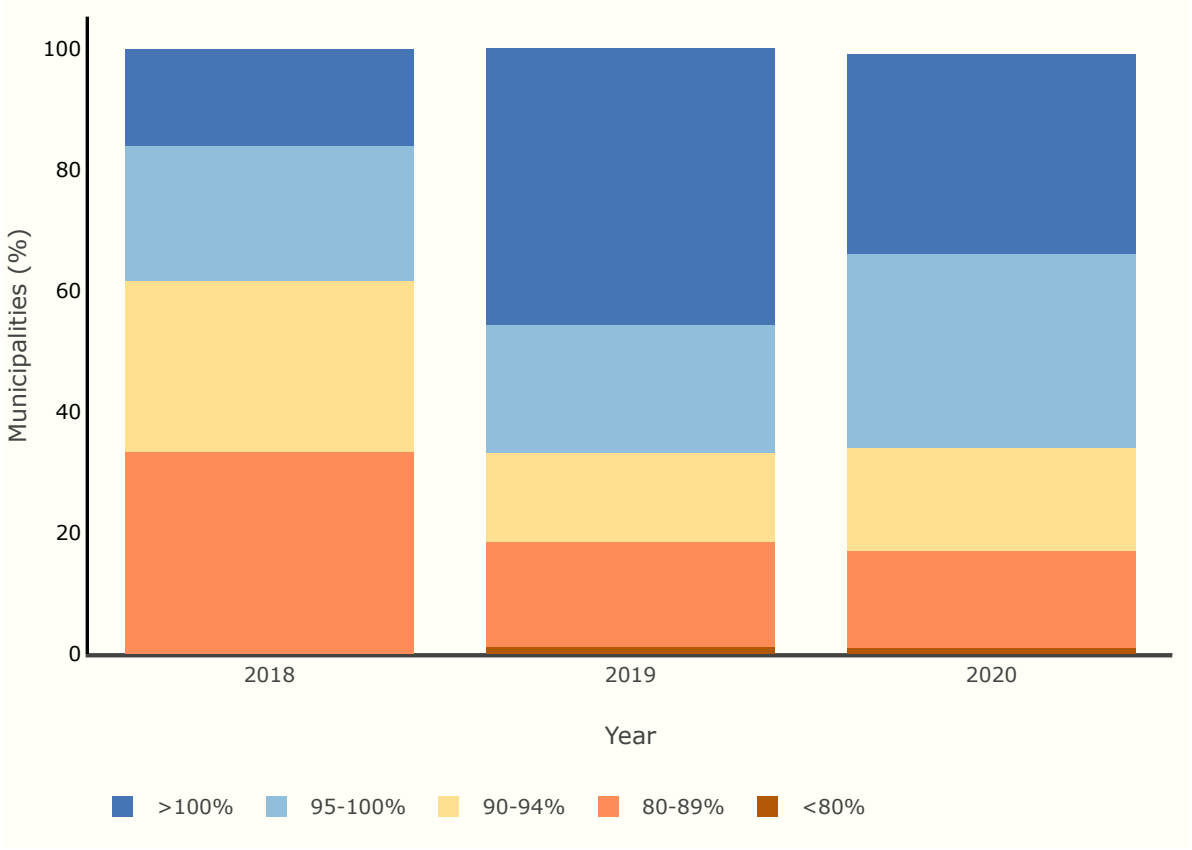


Figure 12: Proportion of children living in those municipalities for MMR1 vaccination coverage ranges, 2018-2022.

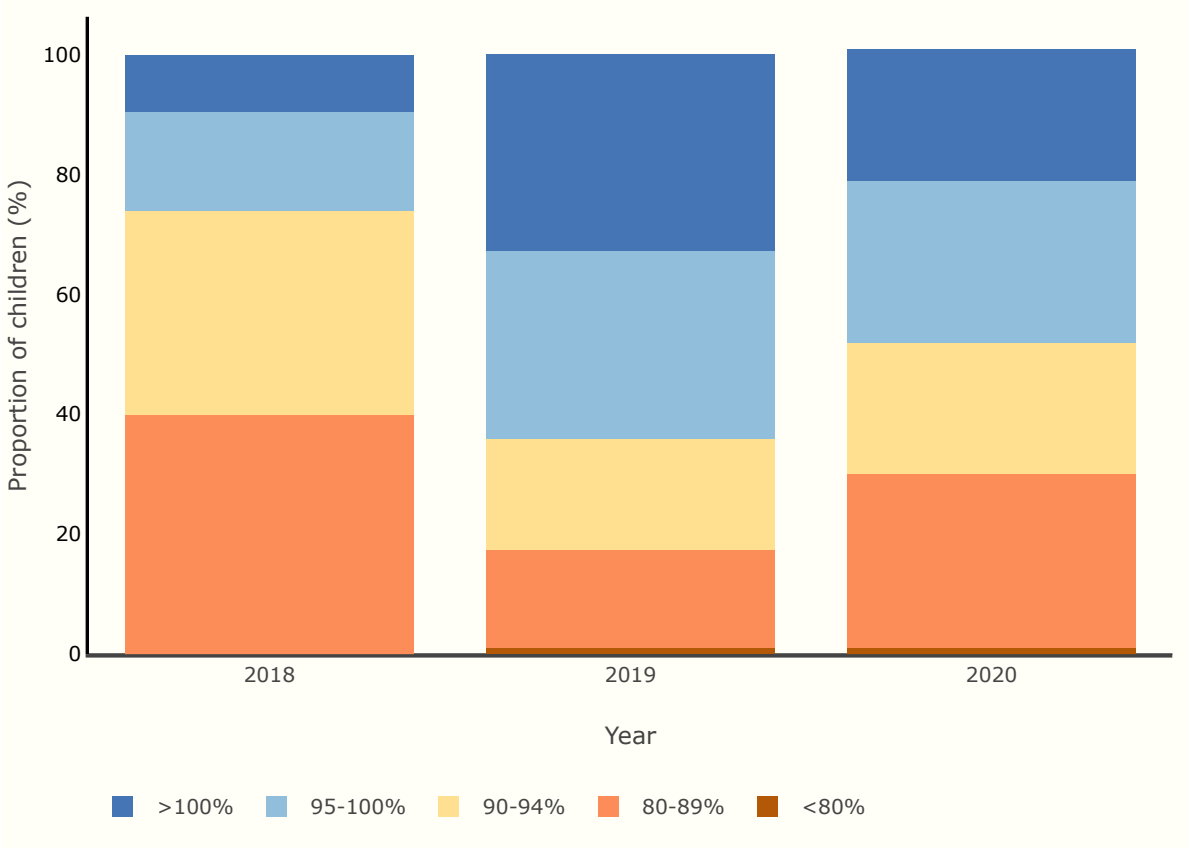


Figure 13: Proportion of municipalities by MMR2 vaccination coverage ranges, 2018-2022.

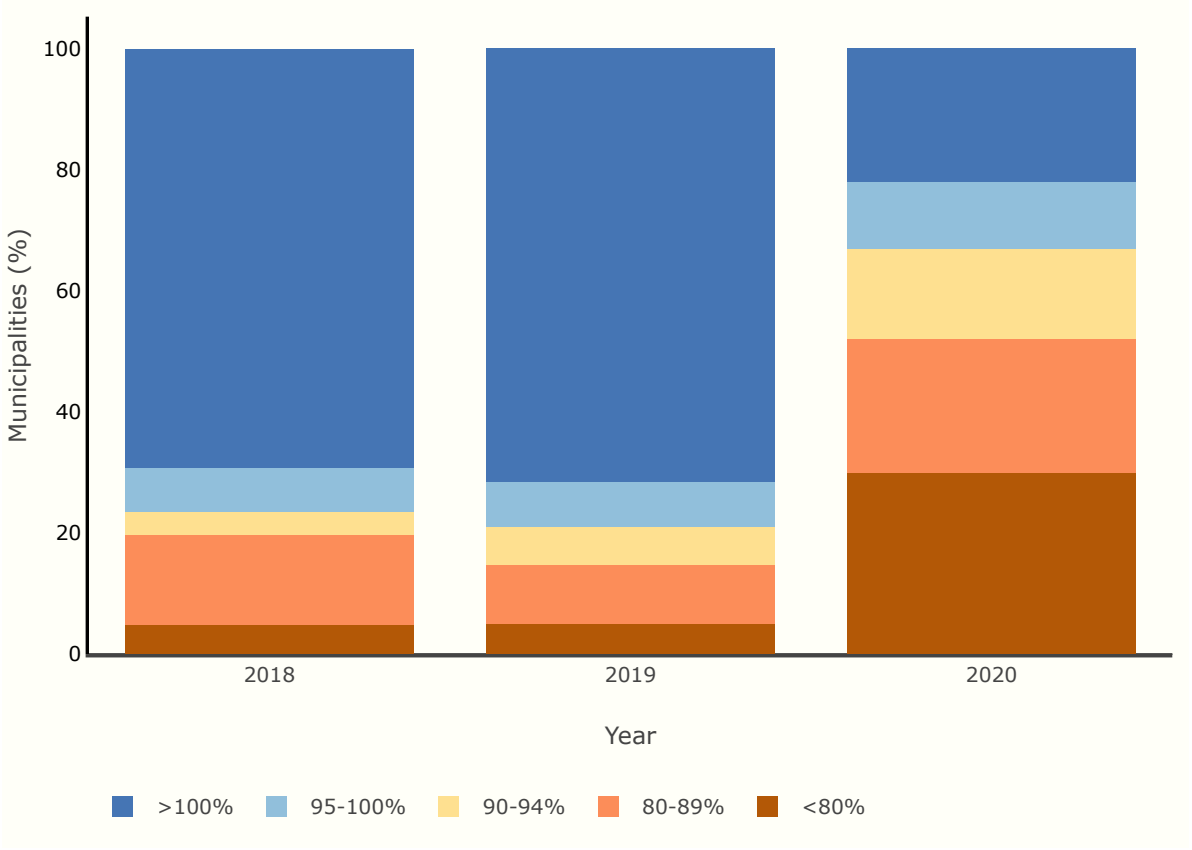


Figure 14: Proportion of children living in those municipalities for MMR2 vaccination coverage ranges, 2018-2022.

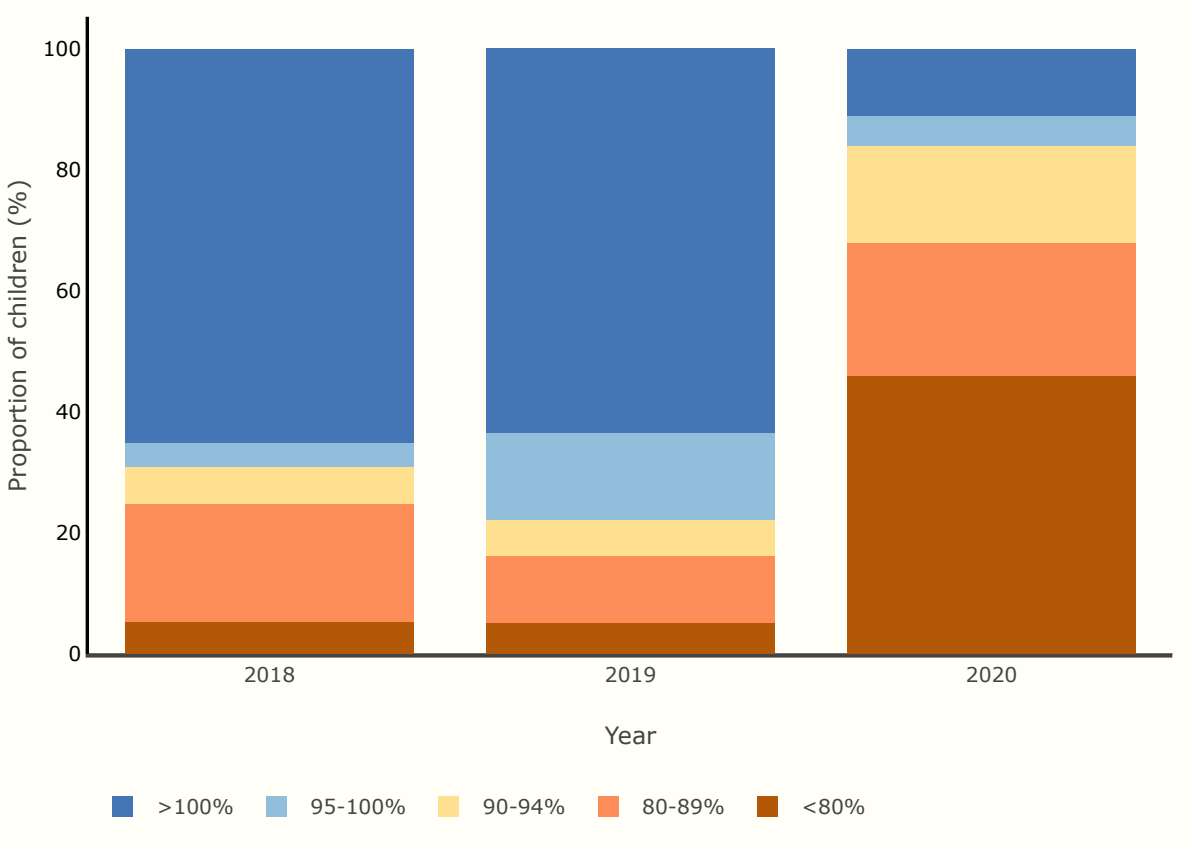


Table 11: Proportion of municipalities with MMR1 and MMR2 coverage ranges and proportion of children living in those municipalities, 2018-2022.

		MMR1		MMR2	
Year	Coverage range (%)	MMR1	MMR2	MMR1	MMR2
2022	<80	NA	NA	NA	NA
2022	80-89	NA	NA	NA	NA
2022	90-94	NA	NA	NA	NA
2022	95-100	NA	NA	NA	NA
2022	>100	NA	NA	NA	NA
2020	<80	1.0	30.0	1.0	46.0
2020	80-89	16.0	22.0	29.0	22.0
2020	90-94	17.0	15.0	22.0	16.0

2020	95-100	32.0	11.0	27.0	5.0
2020	>100	33.0	22.0	22.0	11.0
2019	<80	1.2	4.9	1.1	5.2
2019	80-89	17.3	9.9	16.3	11.1
2019	90-94	14.8	6.2	18.6	5.9
2019	95-100	21.0	7.4	31.3	14.4
2019	>100	45.7	71.6	32.7	63.5
2018	<80	0.0	4.9	0.0	5.4
2018	80-89	33.3	14.8	39.9	19.5
2018	90-94	28.4	3.7	34.1	6.1
2018	95-100	22.2	7.4	16.4	3.9
2018	>100	16.0	69.1	9.5	65.1

References

Section	Sources
General Information	[1] United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition. [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. [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