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

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 $\it Update\ dates$ section.

General Information

Table 1: Demographic data, 2023.

Demographic group	Population
1 year of age Total population	228,250 19,629,591

Table 2: Last endemic cases by year and disease.

Measles	Rubella	CRS
1993	2008	2008

Table 3: Vaccination schedule.

Vaccine	1st Dose	2nd Dose	MMR2 Year Introduced
MMR	1 yr	36 mo	1992

Table 4: Accumulation of susceptibles for measles and rubella.

Year of the	Vaccine	Age	Number	Coverage of the	Number of	Year of
last	used (M,	group	vaccinated	follow-up	susceptibles	next
follow-up	MR,	vacci-	(numera-	campaign	1-4 years of	cam-
campaign	MMR)	nated	tor)	(B/C)*100	age	paign
2020	MMR	1-5	580,545	48.6	77,981	2025
		years				

Epidemiology and Quality of Surveillance

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

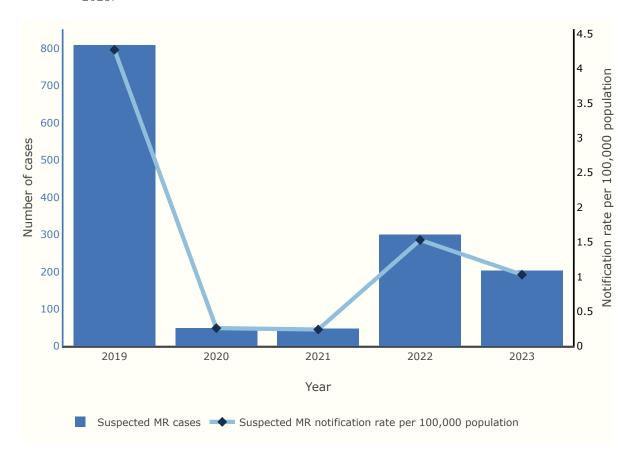


Table 5: Distribution of suspected MR cases and notification rate at the national level, 2019-2023.

	2019	2020	2021	2022	2023
Suspected MR cases Suspected MR notification rate per 100,000 population	809	49	47	300	203
	4 27	0.26	0.24	1.53	1.03

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

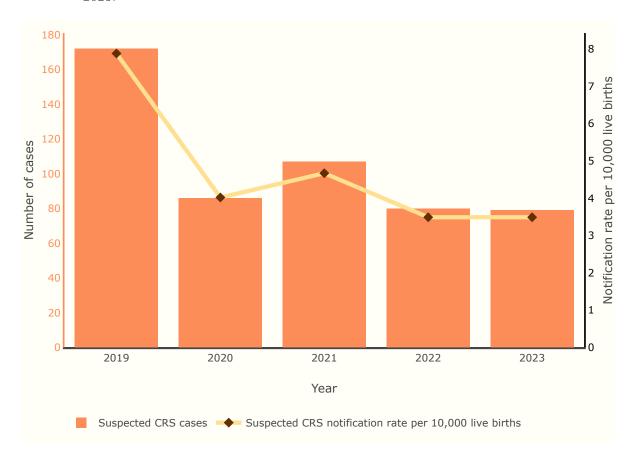


Table 6: Distribution of suspected CRS cases and notification rate at the national level, 2019-2023.

	2019	2020	2021	2022	2023
Suspected CRS cases	172	86	107	80	79
Suspected CRS notification rate per 10,000 live births	7.88	4.02	4.67	3.49	3.49

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

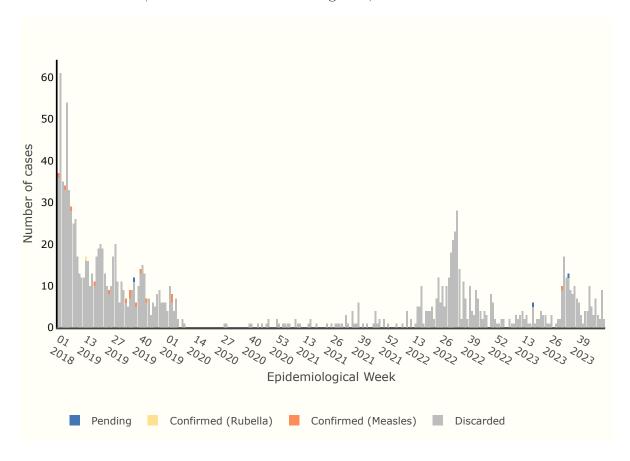


Figure 4: Reported cases of measles and rubella by year and final classification: confirmed, discarded and under investigation, 2019-2023.

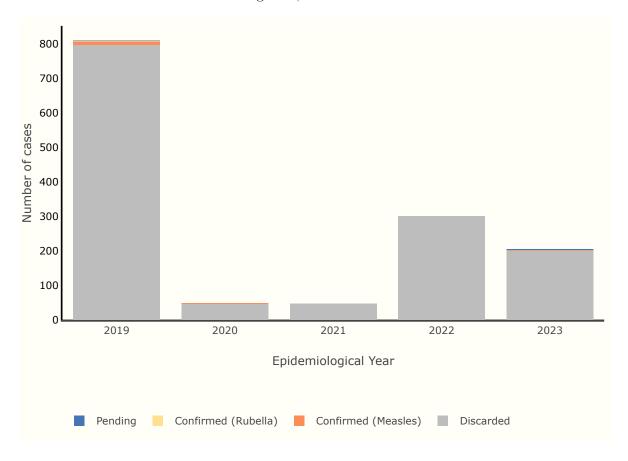
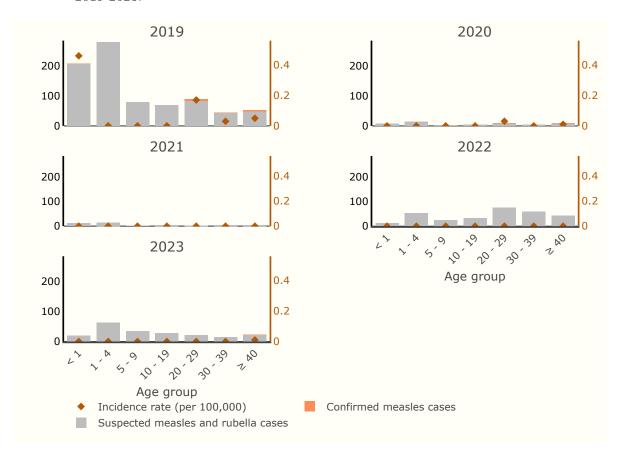
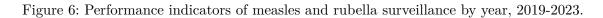


Table 7: Reported cases of measles and rubella by epidemiological year and final classification, 2019-2023.

Classification	2019	2020	2021	2022	2023
Confirmed (Measles)	11	2	0	0	1
Confirmed (Rubella)	1	0	0	0	0
Pending	1	0	0	0	2
Discarded	796	47	47	300	202
Total	809	49	47	300	205

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





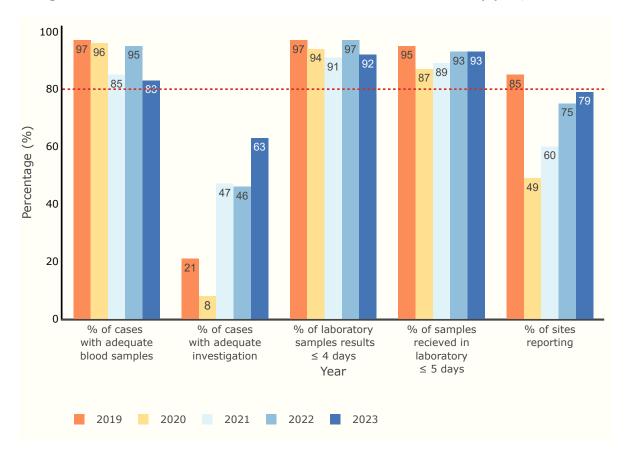


Figure 7: Proportion of the 11 variables reported for adequate investigation indicator, 2023.

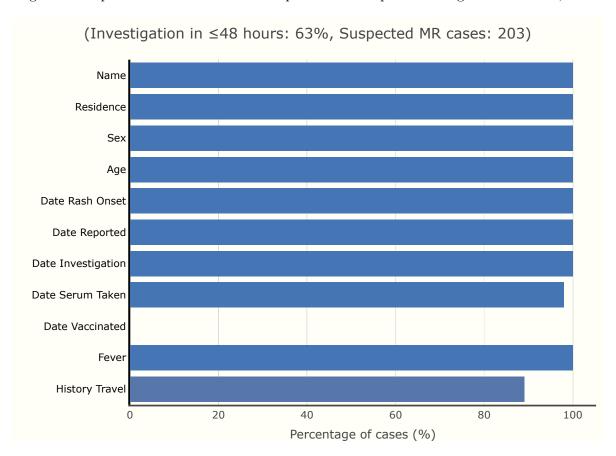


Table 8: Municipalities reporting measles and rubella suspected cases by year, 2019-2023.

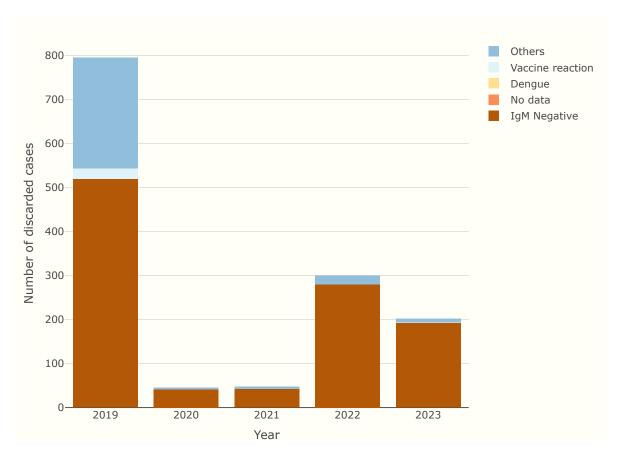
Year	No. of municipalities reporting suspected cases	Total municipalities in the country	% of municipalities reporting suspected cases
2019	124	346	36
2020	31	346	9
2021	31	346	9
2022	84	346	24
2023	94	346	27

Laboratory Surveillance

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

			Criteria	Criteria for discarding		No. of cases discarded by other differential diagnosis					
Year	No. of suspected cases reported	No. of discarded cases	IgM Negative	No data	Others	Vaccine reaction	Dengue	Parvo virus	Herpes 6	Allergic reaction	Others
2019	809	796	520	0	276	24	0	0	0	12	240
2020	48	46	41	0	5	1	0	0	0	0	4
2021	48	48	42	0	6	1	0	0	0	0	5
2022	300	300	280	0	20	0	0	0	0	0	20
2023	203	202	192	0	10	2	0	0	0	0	8

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.

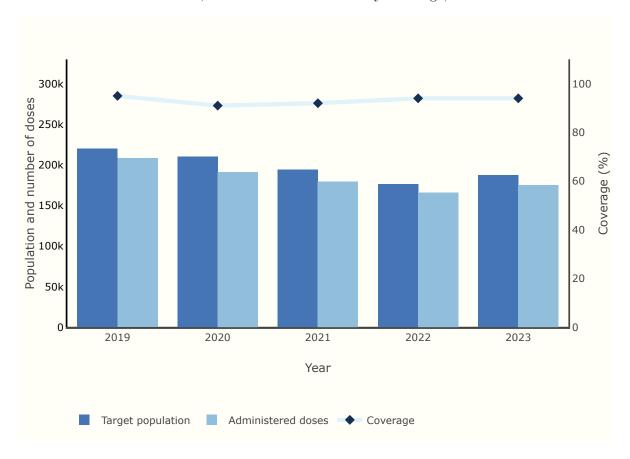


Figure 10: Coverage of the second dose of measles-mumps-rubella (MMR2) vaccine, number of doses administered, and number of children 36 month(s) of age, 2019-2023.

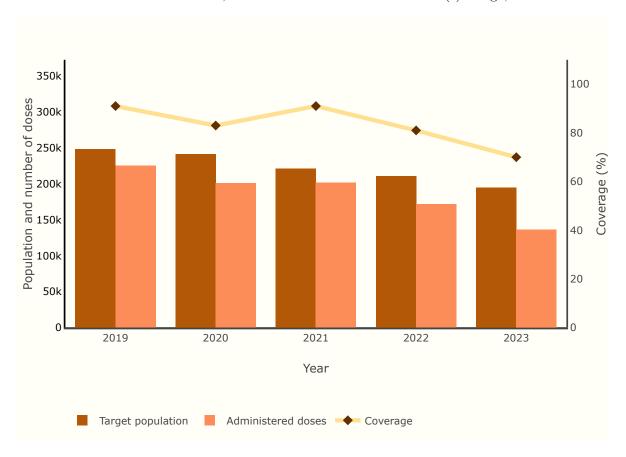


Table 10: Vaccination coverage with first and second dose of measles-mumps-rubella (MMR1 and MMR2) vaccines by target population and administered doses, 2019-2023.

		MMR1			MMR2	
Year	Administered doses	Target population	Coverage	Administered doses	Target population	Coverage
2019	208,482	220,307	95	225,168	248,246	91
2020	191,483	210,701	91	200,673	241,404	83
2021	179,799	194,748	92	201,463	221,377	91
2022	166,149	176,940	94	$171,\!477$	210,703	81
2023	175,701	187,751	94	136,283	194,750	70



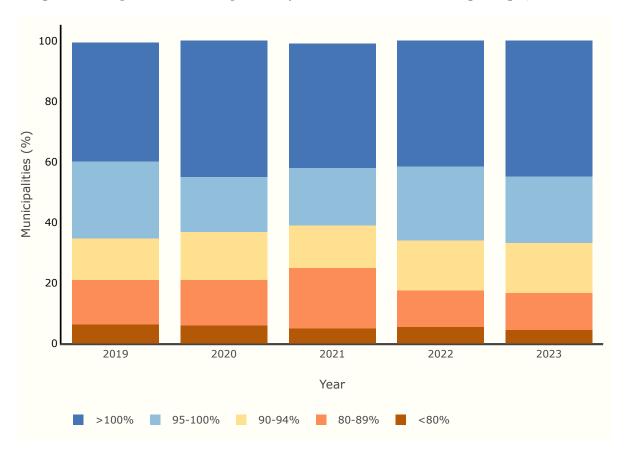
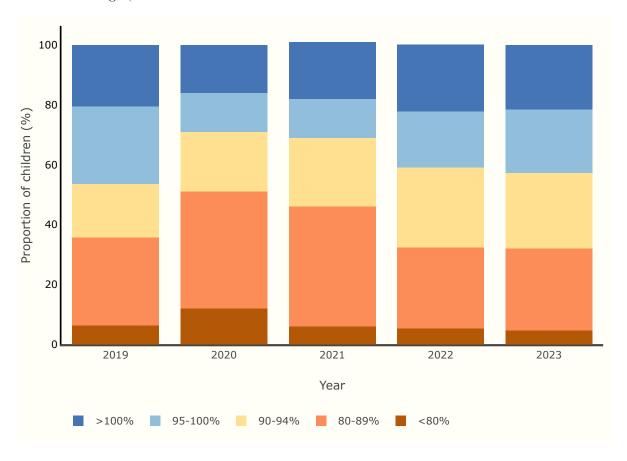


Figure 12: Proportion of children living in those municipalities for MMR1 vaccination coverage ranges, 2019-2023.





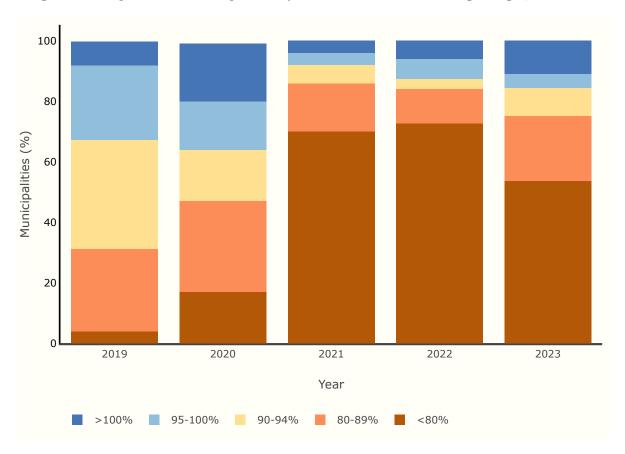


Figure 14: Proportion of children living in those municipalities for MMR2 vaccination coverage ranges, 2019-2023.

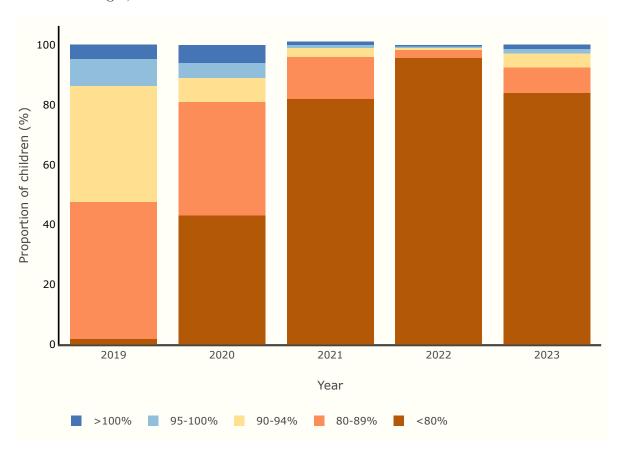


Table 11: Proportion of municipalities with MMR1 and MMR2 coverage ranges and proportion of children living in those municipalities, 2019-2023.

		MMR1		MN	IR2
Year	Coverage range (%)	MMR1	MMR2	MMR1	MMR2
2023	<80	4.6	4.7	84.0	53.8
2023	80-89	12.1	27.4	8.4	21.4
2023	90-94	16.5	25.2	4.8	9.2
2023	95-100	22.0	21.2	1.4	4.6
2023	>100	44.8	21.5	1.4	11.0
2022	< 80	5.5	5.4	95.7	72.8
2022	80-89	12.1	27.1	2.6	11.3
2022	90-94	16.5	26.7	0.6	3.2

$2022 \\ 2022$	95-100 >100	24.3 41.6	18.6 22.2	$0.6 \\ 0.5$	6.6 6.1
2021	<80	5.0	6.0	82.0	70.0
2021	80-89	20.0	40.0	14.0	16.0
2021	90-94	14.0	23.0	3.0	6.0
2021	95-100	19.0	13.0	1.0	4.0
2021	>100	41.0	19.0	1.0	4.0
2020	<80	6.0	12.0	43.0	17.0
2020	80-89	15.0	39.0	38.0	30.0
2020	90-94	16.0	20.0	8.0	17.0
2020	95-100	18.0	13.0	5.0	16.0
2020	>100	45.0	16.0	6.0	19.0
2019	<80	6.4	6.4	1.9	4.0
2019	80-89	14.7	29.4	45.7	27.2
2019	90-94	13.6	17.8	38.7	36.1
2019	95-100	25.4	25.8	9.0	24.6
2019	>100	39.3	20.5	4.7	7.8

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
Epidemiology and Quality of Surveillance	Reporting Form (eJRF). [3] Integrated Surveillance Information System (ISIS) and country reports to CIM/PAHO.
Laboratory Surveillance	 [2] Country reports through the electronic PAHO-WHO/UNICEF Joint Reporting Form (eJRF). [3] Integrated Surveillance Information System (ISIS) and country reports to
Analysis of Vaccination Coverage and Population Cohorts	CIM/PAHO. [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		2024-10-16
Coverage	2023	2024-10-03