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

**Bolivia** 

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).



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	256,702 12,388,572

Table 2: Last endemic cases by year and disease.

Measles	Rubella	CRS
2000	2006	NA

Table 3: Vaccination schedule.

Vaccine	1st Dose	2nd Dose	MMR2 Year Introduced
MMR	12 mo	18 mo-23 mo	2018

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
2022	MMR	De 1-4	614,296	65	NA	2027
		years				

# **Epidemiology and Quality of Surveillance**

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

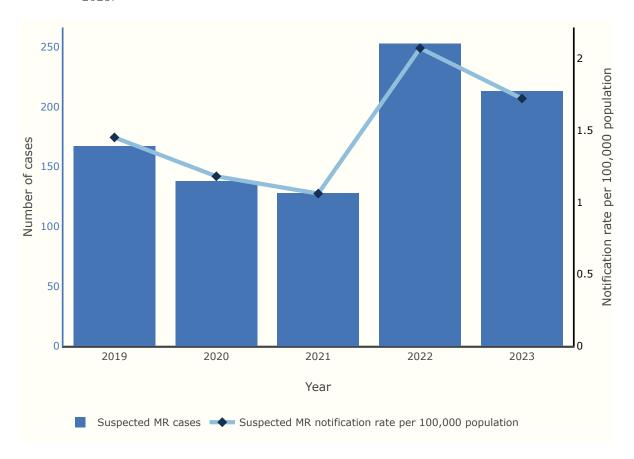


Table 5: Distribution of suspected MR cases and notification rate at the national level, 2019-2023.

	2019	2020	2021	2022	2023
Suspected MR cases	167				213
Suspected MR notification rate per 100,000 population	1.45	1.18	1.06	2.07	1.72

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

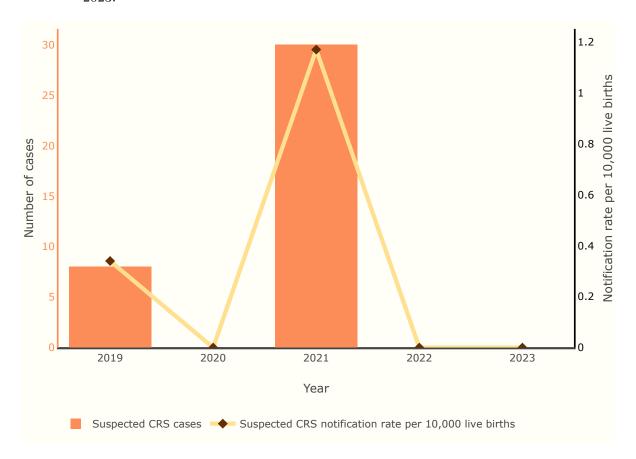


Table 6: Distribution of suspected CRS cases and notification rate at the national level, 2019-2023.

	2019	2020	2021	2022	2023
Suspected CRS cases	8	0	30	0	0
Suspected CRS notification rate per 10,000 live births	0.34	0	1.17	0	0

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

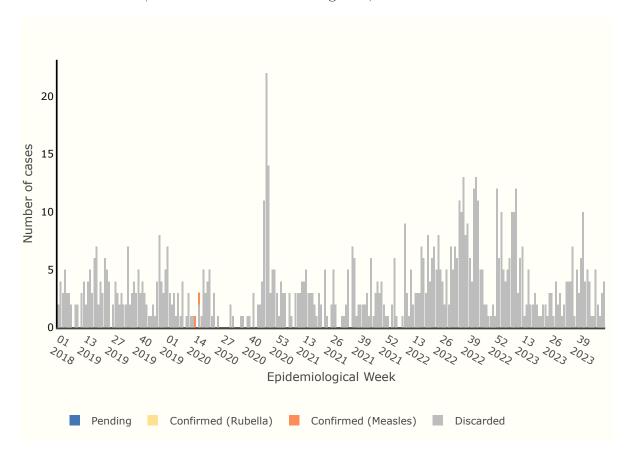


Figure 4: Reported cases of measles and rubella by year and final classification: confirmed, discarded and under investigation, 2019-2023.

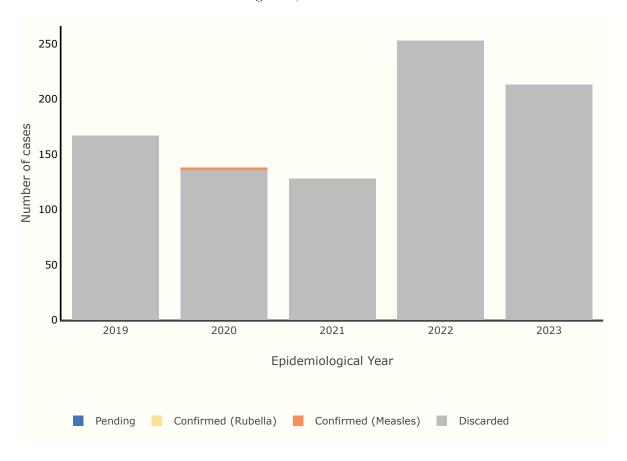
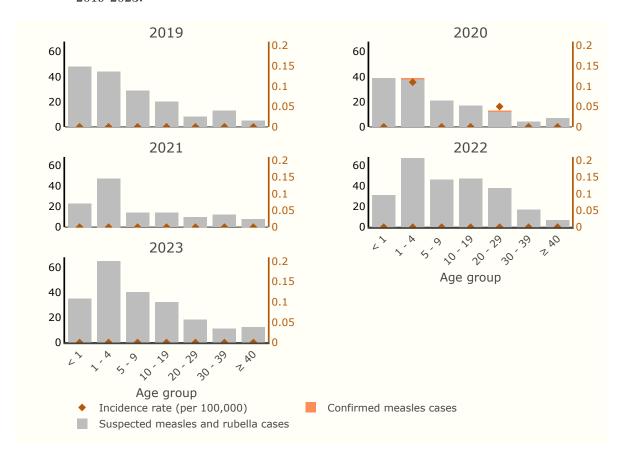
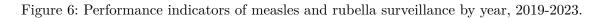


Table 7: Reported cases of measles and rubella by epidemiological year and final classification, 2019-2023.

Classification	2019	2020	2021	2022	2023
Confirmed (Measles)	0	2	0	0	0
Confirmed (Rubella)	0	0	0	0	0
Pending	0	0	0	0	0
Discarded	167	136	128	253	213
Total	167	138	128	253	213

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





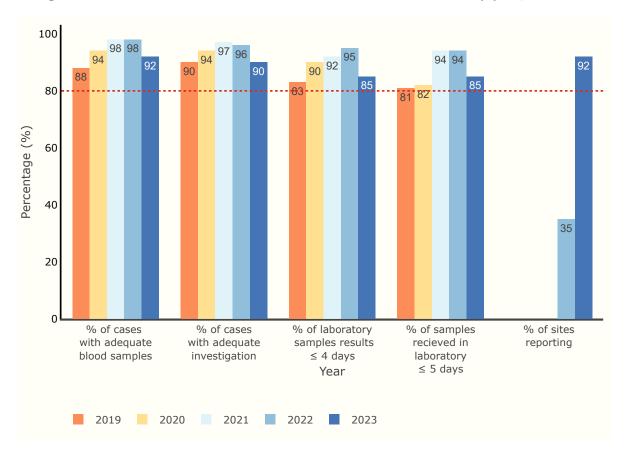


Figure 7: Proportion of the 11 variables reported for adequate investigation indicator, 2023.

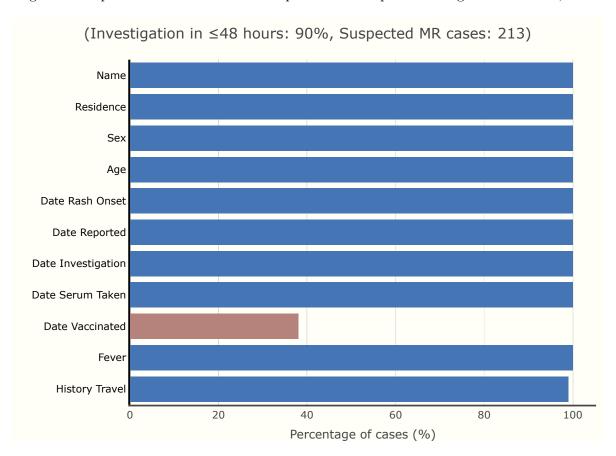


Table 8: Municipalities reporting measles and rubella suspected cases by year, 2019-2023.

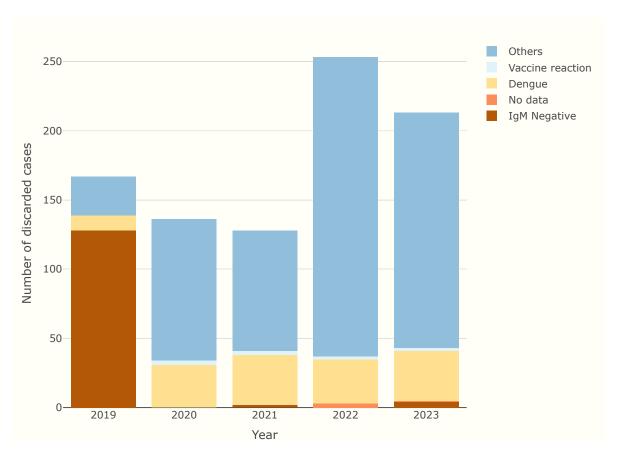
Year	No. of municipalities reporting suspected cases	Total municipalities in the country	% of municipalities reporting suspected cases
2019	28	339	8
2020	33	339	3
2021	24	339	7
2022	45	339	13
2023	50	339	15

# **Laboratory Surveillance**

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

			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	167	167	128	0	39	0	11	0	0	13	15
2020	138	136	0	0	136	3	31	0	0	46	56
2021	128	128	2	0	126	3	36	0	0	33	54
2022	253	253	0	3	250	2	32	0	0	73	143
2023	213	213	4	1	208	2	36	0	0	57	113

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.

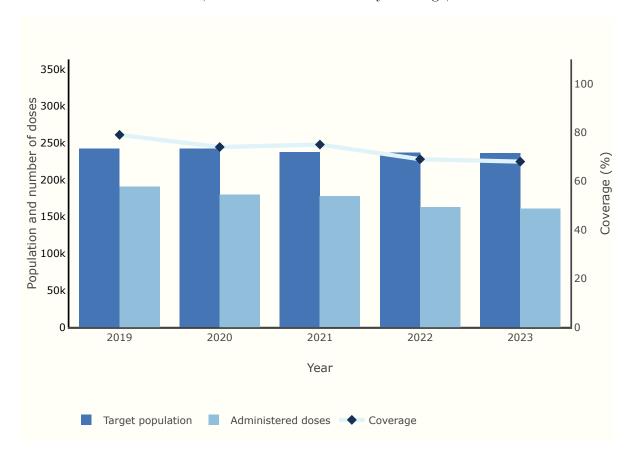


Figure 10: Coverage of the second dose of measles-mumps-rubella (MMR2) vaccine, number of doses administered, and number of children 18 month(s)-23 month(s) of age, 2019-2023.

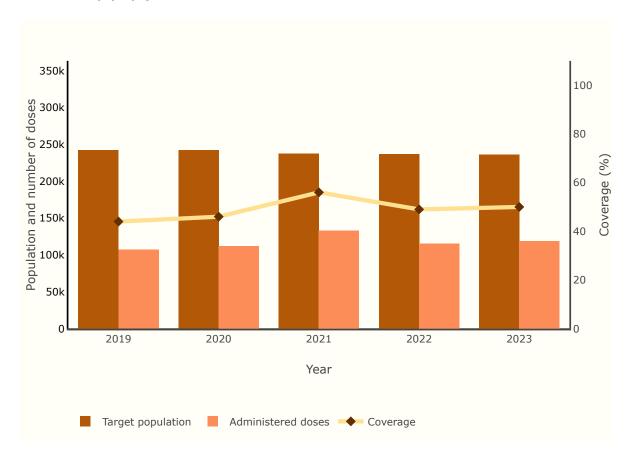


Table 10: Vaccination coverage with first and second dose of measles-mumps-rubella (MMR1 and MMR2) vaccines by target population and administered doses, 2019-2023.

		MMR1			MMR2	
Year	Administered doses	Target population	Coverage	Administered doses	Target population	Coverage
2019	191,006	242,255	79	107,101	242,255	44
2020	180,205	242,152	74	112,338	$242,\!152$	46
2021	177,717	237,747	75	133,344	237,747	56
2022	163,158	237,165	69	115,698	237,165	49
2023	161,103	$236,\!512$	68	118,940	$236,\!512$	50



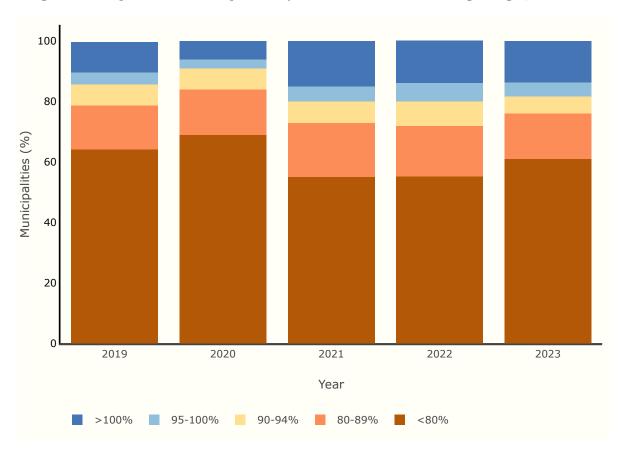
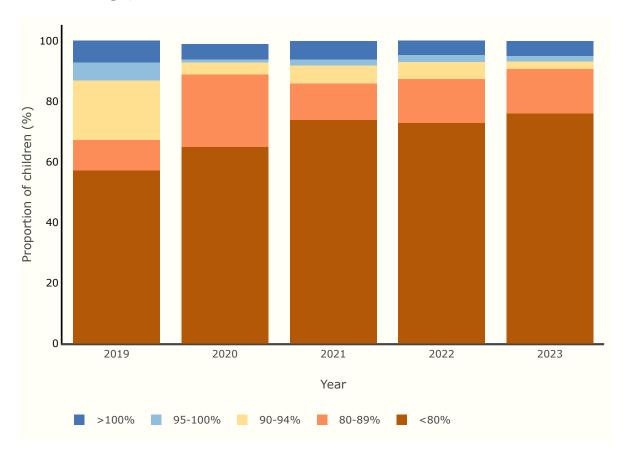


Figure 12: Proportion of children living in those municipalities for MMR1 vaccination coverage ranges, 2019-2023.





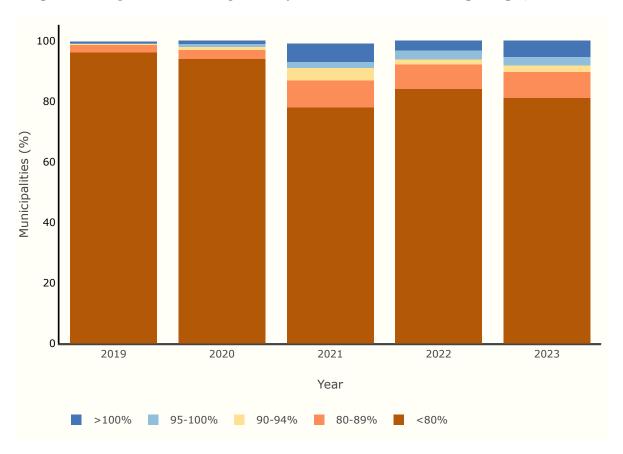


Figure 14: Proportion of children living in those municipalities for MMR2 vaccination coverage ranges, 2019-2023.

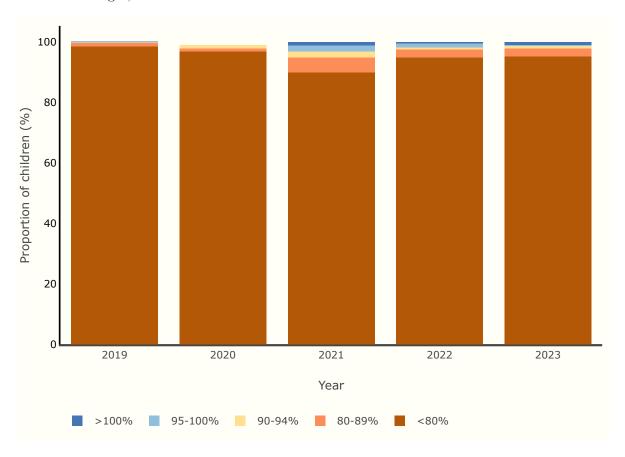


Table 11: Proportion of municipalities with MMR1 and MMR2 coverage ranges and proportion of children living in those municipalities, 2019-2023.

		MN	IR1	MN	IR2	
Year	Coverage range (%)	MMR1	MMR2	MMR1	MMR2	
2023	<80	61.1	76.1	95.3	81.1	
2023	80-89	15.0	14.7	2.6	8.6	
2023	90-94	5.6	2.5	0.8	2.1	
2023	95-100	4.7	1.8	0.4	2.9	
2023	>100	13.6	4.9	0.9	5.3	
2022	< 80	55.2	73.0	95.0	84.1	
2022	80-89	16.8	14.6	2.7	8.0	
2022	90-94	8.0	5.5	0.5	1.8	

$2022 \\ 2022$	95-100	6.2	2.3	1.4	2.9
	>100	13.9	4.7	0.4	3.2
2021	<80	55.0	74.0	90.0	78.0
2021	80-89	18.0	12.0	5.0	9.0
2021	90-94	7.0	6.0	2.0	4.0
2021	95-100	5.0	2.0	2.0	2.0
2021	>100	15.0	6.0	1.0	6.0
2020	<80	69.0	65.0	97.0	94.0
2020	80-89	15.0	24.0	1.0	3.0
2020	90-94	7.0	4.0	1.0	1.0
2020	95-100	3.0	1.0	0.0	1.0
2020 2019 2019 2019 2019 2019	>100 <80 80-89 90-94 95-100 >100	6.0 64.1 14.7 6.8 4.1 10.0	5.0 57.2 10.2 19.7 5.8 7.2	0.0 98.6 1.2 0.1 0.1	1.0 96.2 2.4 0.3 0.3

# References

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