

Immunization in the Americas

2020 Summary

**Comprehensive Family Immunization
Family, Health Promotion, and Life Course**



PAHO



Pan American
Health
Organization



World Health
Organization
REGIONAL OFFICE FOR THE AMERICAS

preface

In December 2019, a novel coronavirus (SARS-CoV-2) was identified as the causative agent of a severe acute respiratory disease (COVID-19) in Wuhan City, Hubei Province, China. The virus spread rapidly to different countries worldwide resulting in an exponential increase in the reported numbers of cases and deaths. The World Health Organization (WHO) declared a pandemic on 11 March 2020.

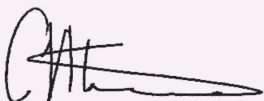
The COVID-19 pandemic has challenged countries globally and in the Region of the Americas from a health systems perspective, testing their response capacity in terms of prevention, protection, curative services, infrastructure, and health personnel, among others. Similarly, the pandemic has negatively impacted the social, economic, labor, and cultural sectors, disproportionately affecting those populations living in situations of vulnerability. It is within this context that the countries of the Region have made great efforts to maintain immunization as an essential health service. Regrettably, however, vaccination coverage, has been negatively impacted with decreases being recorded at the regional, national, and local levels, further exacerbating already existing inequities in access to immunization services.

Data estimates for 2019 from the WHO and the United Nations Children's Fund (UNICEF) indicate an alarming drop of 12 percentage points in the regional coverage of the third dose of the vaccine against diphtheria, tetanus, and pertussis (DTP3) between 2010 and 2019 in Latin America and the Caribbean.

In the current context of the COVID-19 pandemic, the countries of the Region have taken important actions to implement innovative strategies, and to maintain the high commitment of health workers to national immunization programs (NIPs). Although these strategies have improved access to supply services, the COVID-19 pandemic and containment policies in the countries of the Region have affected the demand for vaccination services. The main cause cited for decreased demand has been people's concern about the risk of exposure to COVID-19 when they seek vaccination services. Other causes include difficulties due to limitations in public transport, lockdowns, or physical distancing. Similarly, the number of doses of DTP1, DTP3, and MMR1 vaccines administered to children during the first six months of 2020 declined by 21 percent when compared to the same period in 2019.

Now more than ever, universal health care should protect the health of all people, beginning with the most vulnerable. Care interventions directed at underserved population groups and those living in vulnerable situations are required, as well as the design and implementation of immunization strategies that involve the participation of communities and have political support at all levels.

The Pan American Health Organization/WHO (PAHO/WHO) is committed to support Member States with the tools to preserve immunization as an essential health service and to strengthen NIPs to improve their performance. PAHO/WHO will continue to provide guidance to countries to ensure equitable access to future COVID-19 vaccines, including the planning and implementation of its introduction. Political support will be required to maintain high vaccination coverage and to introduce the COVID-19 vaccine. We, therefore, call on the governments of countries and territories in the Region of the Americas to continue to strengthen these efforts to ensure that no one is left behind, regardless of the limitations imposed by the pandemic.



Carissa F. Etienne
Director
Pan American Health Organization

For this publication:

- Latin America is composed of Mexico, Central America, Latin Caribbean, Andean Area, Brazil, and Southern Cone.
- Latin America & Caribbean is composed of Latin America and Non-Latin Caribbean.
- Because of their population size, Brazil and Mexico are shown separately.

The data published in the brochure "Immunization in the Americas" may have been updated by the countries, after publication. To see the most up-to-date data, please visit: www.paho.org/immunization/Data.



demographic and socioeconomic data

	1	2	3	4			5	6 7		8	9 10	
	total population (thousands)	population <1 year old (thousands)	population 1 year old (thousands)	infant mortality rate (1,000 lb) or number of deaths (N)			women of childbearing age (thousands)	gross national income (US\$ per capita)		Gini index	national health expenditure as a % of GDP	
				rate	(N)	year		current value	ppp value		public	private
	2019	2019	2019				2019	2018	2018	2018	2016	2016
The Americas	1,014,513	14,655.1	14,680.5	12.2	139,852		511,211	27,819	33,354	45.4	7.2	3.3
North America	366,547	4,328.9	4,317.7	5.7	24,036		168,846	61,319	62,318	40.6	13.3	3.1
Bermuda	71	0.8	0.8	1.9	1	2018	29	106,140 ^H	75,630 ^H	...	...	...
Canada	37,411	396.2	397.4	4.5	1,700	2017	17,119	44,950	49,430	33.8 ^H	7.7	2.8
United States of America	329,065	3,932.0	3,919.5	5.8	22,335	2017	151,698	63,170	63,780	41.4 ^L	14.0	3.1
Latin America and the Caribbean	647,965	10,326.1	10,362.8	14.8	115,816		342,364	8,745	15,778	48.3	3.7	3.4
Latin America	640,463	10,215.4	10,250.6	14.8	114,130		338,497	8,683	15,736	48.3	3.7	3.4
Mexico	127,576	2,166.7	2,191.2	12.1 ^A	26,995	2017	67,800	9,180	19,870	45.4	2.9	2.6
Central America	50,011	1,030.1	1,022.4	17.0	12,063		26,715	5,174	10,278	47.6	3.8	3.2
Belize	390	7.9	7.9	12.6	98	2018	215	4,470	6,650	...	4.1	1.8
Costa Rica	5,048	68.4	69.6	8.4 ^B	573	2018	2,654	11,520	18,670	48.0	5.6	1.9
El Salvador	6,454	116.8	116.0	9.2 ^D	1,029	2018	3,399	3,820	8,320	38.6	4.5	2.3
Guatemala	17,581	419.8	414.7	20.0	7,626	2017	9,362	4,400	8,500	48.3 ^J	2.2	3.6
Honduras	9,746	209.3	204.6	22.8 ^D	...	2016	5,357	2,320	5,350	52.1	3.9	4.3
Nicaragua	6,546	130.5	131.7	12.2 ^B	1,674	2018	3,546	2,020	5,700	46.2 ^J	5.4	3.0
Panama	4,246	77.4	77.8	14.0	1,063	2017	2,183	14,370	29,340	49.2	4.8	2.4
Latin Caribbean	37,335	592.5	600.2	34.0	5,240		18,514	6,590	11,064	42.4	4.9	2.3
Cuba	11,333	106.0	113.2	4.0	461	2018	5,245	7,480 ^L	...	...	10.9	1.3
Dominican Republic	10,739	201.6	201.5	22.8	4,420	2018	5,610	7,760	17,330	43.7	2.8	3.3
French Guiana	291	7.6	7.2	7.9	56 ^G	2013-15	147	...	...	...	...	...
Guadeloupe	400	5.2	4.7	8.9	43 ^G	2013-15	161	...	...	...	...	...
Haiti	11,263	255.2	254.1	59.0 ^C	...	2016-17	5,932	800	1,820	41.1 ^M	0.8	2.5
Martinique	376	4.2	3.8	7.3	88	2014-16	146	...	...	...	...	...
Puerto Rico	2,933	12.8	15.6	7.1 ^B	172	2017	1,273	21,100	23,620	...	...	...
Andean Area	140,252	2,361.4	2,359.8	15.8	19,537		73,804	7,411	12,752	46.6	3.1	2.4
Bolivia	11,513	237.2	237.3	24.0 ^A	...	2011-16	5,955	3,370	8,640	42.2	4.5	2.1
Colombia	50,339	760.0	749.9	16.8 ^E	7,220	2016	27,079	6,180	14,310	50.4	3.7	2.1
Ecuador	17,374	336.5	334.7	9.7 ^D	3,252	2017	9,148	6,110	11,530	45.4	4.3	4.1
Peru	32,510	608.2	579.7	15.0 ^C	...	2017	17,188	6,470	12,450	42.8	3.3	1.8
Venezuela	28,516	419.4	458.2	15.2	9,065	2014	14,435	13,080 ^I	-	...	0.8	2.4
Brazil	211,050	2,912.6	2,911.3	13.4 ^E	40,425	2017	114,002	9,080	14,530	53.9	3.9	5.2
Southern Cone	74,239	1,152.1	1,165.8	9.2	9,870		37,661	12,486	21,794	42.3	5.4	2.5
Argentina	44,781	744.7	747.8	9.3	6,579	2017	22,507	12,390	22,470	41.0	5.6	1.9
Chile	18,952	218.1	229.8	7.1	1,557	2017	9,718	14,670	23,750	44.4 ^K	5.0	3.5
Paraguay	7,045	142.0	140.7	12.6 ^D	1,461	2017	3,766	5,670	12,830	46.2	4.1	3.9
Uruguay	3,462	47.2	47.5	6.8	273	2018	1,671	15,650	20,590	39.7	6.5	2.6
Non-Latin Caribbean	7,502	110.7	112.3	17.5	1,686		3,867	17,914	21,489	0.0	3.4	2.4
Anguilla	18	0.2	0.3	20.7	3	2017	9	...	...	...	...	...
Antigua and Barbuda	97	1.5	1.5	18.0	20	2017	50	15,890	20,520	...	2.6	1.7
Aruba	106	1.3	1.2	2.5	3	2017	48	23,630 ^K	31,820 ^K	...	...	...
Bahamas	389	5.8	5.5	16.0	70	2016	210	30,520	34,370	...	3.2	3.2
Barbados	287	3.1	3.0	14.2	37	2016	133	15,410	14,140	...	3.2	3.7
BES*	...	...	...	...	...	...	...	...	...	...	...	...
British Virgin Islands	37	0.4	0.4	16.5	4	2017	20	-	-	...	...	...
Cayman Islands	61	0.7	0.8	9.4	6	2017	28	47,140 ^K	41,640 ^K	...	...	...
Curaçao	163	1.6	1.8	10.3	16	2017	70	19,070 ^K	25,650 ^K	...	...	...
Dominica	74	1.1	1.1	13.8 ^B	10	2018	36	7,090	10,900	...	3.4	1.6
Grenada	112	1.8	1.8	12.5	19	2018	57	9,650	15,620	...	2.2	3.0
Guyana	783	14.6	14.8	18.9 ^D	290	2018	404	4,770	9,300	...	2.5	1.5
Jamaica	2,948	45.4	46.2	20.9 ^D	756	2016	1,557	4,970	9,520	...	3.7	2.3
Montserrat	5	0.1	0.1	0.0	0	2017	3	-	-	...	...	...
Saint Kitts & Nevis	53	0.7	0.7	27.0	16	2018	27	18,340	25,060	...	2.4	3.2
Saint Lucia	183	2.1	2.2	12.9	24	2017	100	9,560	13,060	51.2 ^L	2.2	2.9
Saint Vincent and the Grenadines	111	1.5	1.5	16.6	29	2016	57	7,340	12,640	...	2.7	0.8
Sint Maarten (Dutch part)	43	0.6	0.5	14.6	6	2018	19	-	31,340 ^K	...	...	...
Suriname	581	10.4	10.4	14.0 ^D	137	2017	300	5,210	14,390	...	4.2	1.8
Trinidad and Tobago	1,395	17.1	17.7	11.4 ^{B,DF}	190	2017	707	15,950	26,050	...	3.4	3.1
Turks and Caicos Islands	55	0.8	0.8	11.0	5	2018	33	26,740	26,230	...	...	...

*Bonaire, St. Eustatius, and Saba.

(A) study; (B) preliminary; (C) survey; (D) data have one or more of the following limitations: coverage of maternal deaths and live births, differences in the maternal death definition, different denominators used, the analysis of only confirmed maternal deaths, and coverage of infant and neonatal deaths; (E) estimate; (F) public sector only; (G) value 2015; (H) valor2013; (J) value 2014; (K) value 2017; (L) value 2016; (M) value 2012.

reported immunization coverage

	11	12	13	14	15	16	17	18	19	20	21	22
	percentage of coverage											
	<1 year of age									1 year of age		
	BCG	HepB Birth	IPV1	polio3	DTP1-vc ^(D)	DTP3-vc ^(D)	DTP1-3 dropout rate	rotavirus	PCV3	DTP4	MMR1	MMR2 ^(G)
2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
The Americas	85	73	89	87	89	84	7.4	80	86	73	87	75
North America	NA	67	96	93	96	94	1.7	74	91	80	90	94
Bermuda	NA	NA	100	98	100	98	1.7	87	96	90	100 ^C	100 ^C
Canada ^A	NA	...	87	91	87	91	...	79	81	76	90	87
United States of America ^B	NA	67	97	93	97	94	...	74	92	80	90	95
Latin America and the Caribbean	85	77	86	84	86	80	7.4	83	83	71	86	67
Latin America	85	77	86	84	86	80	7.4	83	83	70	85	66
Mexico	76	...	84	82	84	82	1.7	82	83	80	71	73
Central America	88	80	91	85	92	88	4	87	89	86	91	87
Belize	95	70	92	98	99	98	1.5	...	...	89	96	95
Costa Rica	88	87	96	...	96	95	1.7	59	95	94	95	100 ^C
El Salvador	78	76	81	81	80	81	-0.7	82	82	81	82	87
Guatemala	86	...	90	79	92	85	8.0	86	88	79	90	78
Honduras	87	78	89	88	89	88	1.5	89	88	87	89	85
Nicaragua	100 ^C	NA	100 ^C	100 ^C	100 ^C	100 ^C	-4.0	100 ^C	100 ^C	100 ^C	100 ^C	100
Panama	100	85	100 ^C	88	100 ^C	88	13.1	94	90	100 ^C	97 ^C	97
Latin Caribbean	84	87	90	86	92	80	13.9	71	42	70	85	59
Cuba	99	99	100 ^C	99	100	99	0.3	NA	NA	99	100	100
Dominican Republic	100 ^C	81	100 ^C	92	100 ^C	89	15.2	80	...	83	96	60
French Guiana	...	...	...	...	...	...	...	...	...	...	...	...
Guadeloupe	...	...	...	...	...	...	...	...	...	...	...	...
Haiti	66	...	78	76	82	66	18.8	63	42	46	70 ^F	41
Martinique	...	...	...	...	...	...	...	...	...	...	...	...
Puerto Rico	...	...	...	...	...	...	...	...	...	...	...	...
Andean Area	90	74	85	83	91	84	8.8	88	85	68	89	60
Bolivia	80	...	81	75	81	75	6.9	78	75	60	79	44
Colombia	90	81	95	93	95	94	1.7	92	93	88	95	89
Ecuador	86	71	85 ^H	85	85	85	0.3	85	83	77	83	76
Peru	94	82	96	87	97	88	8.9	90	80	68	85	66
Venezuela	91	52	55	62	85	64	24.8	...	...	35	93	13
Brazil	85	77	86	85	79	70	12.3	83	...	57	91	54
Southern Cone	87	81	87	84	88	85	3.6	77	83	76	87	85
Argentina	85	77	85	83	87	83	4.8	77	80	73	86	84
Chile	98	94	99	96	99	96	0.1	...	95	91	95	91
Paraguay	75	...	76	71	76	74	2.7	74	74	62	75	71
Uruguay	99	NA	99	93	100	94	5.3	NA	95	96	96	99
Non-Latin Caribbean	97	82	96	94	96	95	1.3	94	69	88	94	86
Anguilla	77	100	77	77	79	77	3.2	...	75	47	88	68
Antigua and Barbuda	NA	NA	100 ^C	95	100 ^C	95	5.7	NA	...	85	93	80
Aruba	NA	...	99	96	99	96	2.8	...	91	92	95	85
Bahamas	NA	...	91	89	91	89	2.2	78	89	62	83	83
Barbados	NA	...	94	91	92	90	2.1	...	93	89	100 ^C	85
BES*	...	...	...	...	...	...	...	...	...	...	...	...
British Virgin Islands	NA	98	92	80	94	88	7.4	...	...	76	84	78
Cayman Islands	...	...	...	93	...	...	...	...	...	...	...	...
Curaçao	NA	...	100	96	100	98	2.0	...	90	79	92	78
Dominica	98	97	100 ^C	99	100 ^C	99	2.9	NA	NA	90	92	92
Grenada	NA	96	100 ^C	94	100 ^C	92	7.2	...	...	84	94	82
Guyana	100	70	100	97	100	99	1.9	100 ^C	98	86	98	92
Jamaica	97	...	97	96	97	96	1.4	...	44	93	94	92
Montserrat	100 ^C	100 ^C	95	100 ^C	100 ^C	100 ^C	0.0	...	100 ^C	100 ^C	100 ^C	98
Saint Kitts & Nevis	100	99	97	97	98	97	-1.5	...	...	95	97	98
Saint Lucia	95	85	100	91	100	92	7.9	...	...	94	96	75
Saint Vincent and the Grenadines	87	100	100	100 ^C	99	100 ^C	-4.8	...	...	100	100 ^C	100 ^C
Sint Maarten (Dutch part)	NA	...	...	65	...	...	...	...	...	...	...	...
Suriname	NA	91	93	90	93	91	2.4	NA	NA	66	85	43
Trinidad and Tobago	NA	...	92	93	91	93	-1.9	...	93	96	99	92
Turks and Caicos Islands	100	...	93	93	92	93	-1.1	...	...	100	96	88

*Bonaire, St. Eustatius, and Saba.

(A) <2 years of age; (B) children aged 19-35; (C) reported coverage >100%; (D) diphtheria-tetanus-pertussis containing vaccine; (E) no data but in schedule; (F) coverage report for measles-rubella vaccine in children <1 year of age; (G) target age groups vary by country; (H) fractional dose.

morbidity data

	23	24	25	26	27	28	29	30	31	32	33	34
	number of reported cases											
	confirmed cases				neonatal tetanus	yellow fever	total tetanus	pertussis	diphtheria	mumps	Hib meningitis	meningitis pneumo-cocco
	VDPV ^(A)	measles	rubella	CRS								
	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
The Americas	1	23,275	29	0	14	99	494	16,346	234	62,010	292	1,645
North America	0	1,395	5	0	0	1	17	11,128	5	1,899	22	1
Bermuda	0	0	0	0	0	0	0	2	0	2	0	1
Canada	0	113	1	0	0	1	4	2,514	5	183	12	...
United States of America ^B	0	1,282 ^C	4 ^C	0 ^C	...	0	13	8,612	...	1,714	10 ^E	...
Latin America and the Caribbean	1	21,880	24	0	14	98	477	5,218	229	60,111	270	1,644
Latin America	1	21,875	24	0	14	98	477	5,212	229	60,108	269	1,644
Mexico	0	20	0	0	1	0	34	874	0	8,009	0	14
Central America	0	10	0	0	2	0	23	308	0	12,677	5	11
Belize	0	0	0	0	0	0	0	0	0	13	...	...
Costa Rica	0	10	0	0	0	0	0	51	0	7	0	3
El Salvador	0	0	0	0	0	0	4	3	0	2,264	0	8
Guatemala	0	0	0	0	0	0	5	60	0	119	0	...
Honduras	0	0	0	0	2	0	13	78	0	10,083	0	0
Nicaragua	0	0	0	0	0	0	0	8	0	6	0	0
Panama	0	0	0	0	0	0	1	108	0	185	5	0
Latin Caribbean	0	0	19	0	6	0	125	123	62	1,848	22	73
Cuba	0	0	0	0	0	0	0	0	0	0	18	67
Dominican Republic	0	0	0	...	1	NA	38	123	7	1,848	2	6
French Guiana	...	...	...	...	...	...	...	...	...	...	...	...
Guadeloupe	...	...	...	...	...	...	...	...	...	...	...	...
Haiti	0	0	19	0	5	...	87	0	55	...	2	0
Martinique	...	...	...	...	...	...	...	...	...	...	...	...
Puerto Rico	0	0	0	0	...	...	...	...	...	...	...	...
Andean Area	0	794	0	0	5	8	63	1,064	165	21,933	47	217
Bolivia	0	0	0	0	0	2	0	29	0	13	0	3
Colombia	0	244	0	0	2	0	25	347	1	15,125	38	212
Ecuador	0	0	0	0	0	0	14	57	0	2,701	2	2
Peru	...	2	0	...	3	4	20	414	0	3,969	0	...
Venezuela	0	548	0	0	0	2	4	217	164	125	7	0
Brazil	0	20,901 ^D	0	0	0	90	211	1,423	2	...	158	987
Southern Cone	1	150	5	0	0	0	21	1,420	0	15,641	37	342
Argentina	1	130	4	0	0	0	6	975	0	9,278	29	107
Chile	0	11	1	0	0	0	7	350	0	4,829	1	178
Paraguay	0	0	0	0	0	0	7	26	0	699	5	40
Uruguay	0	9	0	0	0	0	1	69	0	835	2	17
Non-Latin Caribbean	0	5	0	0	0	0	0	6	0	3	1	0
Anguilla	0	0	0	0	0	0	0	0	0	0	0	0
Antigua and Barbuda	0	0	0	0	0	0	0	0	0	0	0	0
Aruba	0	0	0	0	0	0	0	0	0	1	0	0
Bahamas	0	3	0	0	0	0	0	0	0	0	0	...
Barbados	0	0	0	0	0	0	0	4	0	0	0	0
BES*	...	...	...	...	...	...	...	...	...	...	...	...
British Virgin Islands	0	0	0	0	0	0	0	0	0	0	0	0
Cayman Islands	...	...	...	...	...	...	...	...	...	...	...	...
Curaçao	0	1	0	0	0	0	0	1	0	2	0	...
Dominica	0	0	0	0	0	0	0	0	0	0	0	0
Grenada	0	0	0	0	0	0	0	0	0	0	0	0
Guyana	0	0	0	0	0	0	0	0	0	0	...	...
Jamaica	0	0	0	0	0	0	0	0	0	0	0	0
Montserrat	0	0	0	0	0	0	0	0	0	0	0	0
Saint Kitts & Nevis	0	0	0	0	0	0	0	0	0	0	0	0
Saint Lucia	0	1	0	0	0	0	0	0	0	0	0	0
Saint Vincent and the Grenadines	0	0	0	0	0	0	0	0	0	0	0	...
Sint Maarten (Dutch part)	...	...	...	...	...	...	...	...	...	...	...	...
Suriname	0	0	0	0	0	0	0	1	0	0	0	...
Trinidad and Tobago	0	0	0	0	0	0	0	0	0	0	1	0
Turks and Caicos Islands	0	0	0	0	0	0	0	0	0	0	0	0

*Bonaire, St. Eustatius, and Saba.

(A) no countries reported wildpolio virus in the Americas; (B) CDC Wonder, National Notifiable Diseases Surveillance System (NNDSS), provisional data as of epidemiological week 32 (August 2020); (C) Measles/Rubella Weekly Surveillance Bulletin, 2019; (D) re-establishment of endemic transmission; (E) invasive disease, age <5 years.

program management and financing

	35	36	37	38	39	40	41	42	43	44
	years covered by multi-year plan for immunization	number of NITAG ^(A) meetings	total number of districts/ municipalities	% of municipalities w/ coverage level ≥95%	% of children in municipalities w/ coverage level ≥95%	plan for immunization injection safety	number of "serious" ESAVIs reported	spending on routine immunization financed using gov't funds (%)	spending on vaccine purchases financed using gov't funds (%)	budget line for vaccine purchases
		2019	2019	DTP3 2019	DTP3 2019	2019	2019	2019	2019	2019
The Americas		166	18,247	33	22		6,524			
North America		6	3,255	7	100		3,239			
Bermuda	No	NA	1	100	100	No	0	100	100	Yes
Canada	No	3	111	...	...	NA	10	...	...	...
United States of America	...	3	3,143	...	...	Yes	3,229	...	...	Yes
Latin America and the Caribbean		160	14,992	33	22		3,285			
Latin America		100	14,755	33	22		3,279			
Mexico	2019-2024	3	2,474	38	26	Yes	247	100	100	Yes
Central America		42	1,221	41	35		80			
Belize	No	...	6	100	100	No	1	99	100	...
Costa Rica	No	12	81	79	80	Yes	...	...	...	...
El Salvador	2019-2024	6	262	24	17	Yes	44	100	100	Yes
Guatemala	2020-2024	12	340	31	20	No	1	100	100	Yes
Honduras	2016-2020	3	298	35	34	Yes	29	93	94	Yes
Nicaragua	2016-2020	1	153	82	81	Yes	5	82	82	Yes
Panama	2021	8	81	35	11	Yes	0	100	100	Yes
Latin Caribbean		7	465	55	34		5			
Cuba	2019-2020	6	168	100	100	Yes	5	99	98	Yes
Dominican Republic	2019-2022	0	157	43	38	No	0	88	89	Yes
French Guiana	...	...	...	...	...	...	...	...	...	...
Guadeloupe	...	...	...	...	...	...	...	...	...	...
Haiti	2016-2020	1	140	15	14	Yes	0	13	27	Yes
Martinique	...	...	...	...	...	...	...	...	...	...
Puerto Rico	...	...	...	...	...	...	...	...	...	...
Andean Area		25	3,892	39	26		616			
Bolivia	2016-2020	10	340	9	7	No	1	98	100	Yes
Colombia	2016-2020	0	1,122	50	41	NA	549	100	100	...
Ecuador	No	3	221	26	16	No	3	100	100	Yes
Peru	No	12	1,874	42	36	Yes	61	100	100	...
Venezuela	No	0	335	23	13	Yes	2	...	100	Yes
Brazil	2020-2023	1	5,570	22	10	Yes	2,086	...	...	Yes
Southern Cone		22	1,133	39	23		245			
Argentina	2019	4	512	34	17	Yes	75	100	100	Yes
Chile	2010-2020	9	346	68	52	Yes	93	100	100	Yes
Paraguay	No	7	255	10	6	Yes	45	99	100	Yes
Uruguay	2015-2020	2	20	40	27	Yes	32	100	100	...
Non-Latin Caribbean		60	237	56	53		6			
Anguilla	No	3	3	0	0	NA	...	98	100	...
Antigua and Barbuda	No	3	8	63	61	No	0	...	...	...
Aruba	No	3	6	67	79	No	0	...	...	...
Bahamas	No	3	16	69	11	Yes	0	99	100	No
Barbados	No	3	10	30	36	No	2	99	100	Yes
BES*	...	...	...	...	...	...	...	...	...	...
British Virgin Islands	2019-2023	3	4	25	9	...	0	100	100	...
Cayman Islands	...	3	...	...	...	...	...	...	...	...
Curaçao	2019	3	1	100	100	No	1	100	100	Yes
Dominica	No	3	7	71	45	Yes	2	96	100	No
Grenada	3	3	7	29	33	Yes	0	100	100	Yes
Guyana	2017-2021	3	13	38	42	Yes	0	87	91	Yes
Jamaica	No	3	13	77	70	No	...	99	100	Yes
Montserrat	No	3	0	100	100	Yes	NA	...	...	...
Saint Kitts & Nevis	No	3	17	88	94	No	...	...	...	No
Saint Lucia	No	3	8	38	32	Yes	NA	100	100	...
Saint Vincent and the Grenadines	No	3	9	67	73	No	...	...	...	...
Sint Maarten (Dutch part)	...	3	...	...	...	...	...	...	...	...
Suriname	2020-2025	3	10	30	51	Yes	1	96	100	Yes
Trinidad and Tobago	No	3	101	44	37	No	0	100	100	...
Turks and Caicos Islands	No	3	4	50	10	NA	NA	100	...	No

*Bonaire, St. Eustatius, and Saba.

(A) NITAG: National immunization Technical Advisory Group

surveillance indicators

Acute Flaccid Paralysis (AFP), 2019*

Country	Number of AFP cases	AFP rate (x 100,000 <15 years old)	% of cases investigated within <48 hours	% of cases with 1 adequate sample	Number of compatible cases
Argentina	183	1.66	28	72	0
Bolivia	24	0.68	91	79	0
Brazil	449	1.01	98	63	0
Canada	26	0.44	0	38	0
CARPHA	8	0.57	100	100	0
Chile	61	1.65	83	67	0
Colombia	76	0.67	67	94	0
Costa Rica	16	1.5	93	81	0
Cuba	28	1.54	75	92	0
Dominican Republic	25	0.84	28	92	0
Ecuador	22	0.46	81	86	0
El Salvador	34	1.96	50	91	0
Guatemala	71	1.19	84	77	0
Haiti	14	0.30	86	36	0
Honduras	46	1.57	61	91	0
Mexico	840	2.70	100	91	0
Nicaragua	25	1.28	100	100	0
Panama	6	0.53	66	100	0
Paraguay	26	1.24	85	97	0
Peru	121	1.47	74	67	0
Uruguay	8	1.13	100	0	0
Venezuela	101	1.29	100	60	0
TOTAL/AVERAGE	2,210	1.33	86	77	0

Source: Integrated Surveillance Information System, Polio Eradication Surveillance System, and country reports to FPL-IM/PAHO.

*Data as of epidemiological week 33 (August 2020).

Measles/Rubella/CRS Surveillance Indicators, 2019*

Country	Number of suspect cases	% of cases with adequate investigation	% of cases with adequate samples	% of samples received in lab ≤5 days	% of lab samples results ≤4 days	Rate of suspected MR cases/100,000 population	Rate of suspected CRS cases/10,000 live births
Argentina	4,019	37	87	87	69	8.8	1.6
Bolivia	166	91	88	80	82	1.5	0.3
Brazil	67,702	72	82	84	21	32.8	0.2
CARPHA	371	86	98	9	83	4.7	3.5
Chile	804	21	98	95	97	4.3	7.4
Colombia	4,299	92	96	91	96	8.5	4.9
Costa Rica	103	86	97	96	92	2.1	8.4
Cuba	3,275	100	100	100	100	28.8	0.0
Dominican Republic	174	25	97	83	75	1.6	0.0
Ecuador	174	86	97	77	91	1.0	0.0
El Salvador	552	75	98	97	95	8.9	0.0
Guatemala	369	86	97	62	84	2.1	0.0
Haiti	209	87	92	69	66	1.8	1.0
Honduras	385	80	99	80	98	4.2	1.1
Mexico	5,102	95	99	91	89	3.8	0.0
Nicaragua	686	97	95	93	84	10.8	2.5
Panama	67	91	96	78	97	1.6	0.0
Paraguay	1,568	78	90	83	75	21.9	0.4
Peru	556	85	92	78	48	1.7	0.0
Uruguay	71	97	55	55	45	2.0	0.0
Venezuela	1,447	100	67	9	19	5.1	0.3
TOTAL/AVERAGE	92,099	74	85	84	37	14.2	0.8

Source: Integrated Surveillance Information System, Measles Elimination Surveillance System, and country reports to FPL-IM/PAHO.

*Data as of epidemiological week 33 (August 2020).

Dashboard of Selected Regional Immunization Action Plan (RIAP) Objectives in the Americas

General (GO) and Strategic Objectives (SO)	Baseline (2013)	Target (2020)	2019
GO 1.2.1 Number of countries and territories in which endemic transmission of measles or rubella virus has been reestablished	0	0	2 ●
GO 2.2.1 Number of countries and territories reporting national average coverage of at least 95% with three doses of DTP vaccine in children under 1 year	19	35	13 ●
GO 2.2.2 Number of countries and territories reporting coverage of at least 80% in each district or equivalent with three doses of DTP vaccine in children under 1 year	12	35	15 ●
SO 4.2.1 Number of countries and territories that have dropout rates below 5% between the first and the third dose of DTP vaccine	11	35	26 ●
SO 4.2.2 Number of countries and territories with coverage above 95% for third dose of DTP vaccine sustained for three or more consecutive years	13	35	6 ●
SO 4.2.5 Number of countries and territories that have a national system for a computerized nominal immunization registry	3	10	19 ●

Source: Country reports through the PAHO-WHO/UNICEF Joint Reporting Form (JRF), 2020; IM/PAHO.

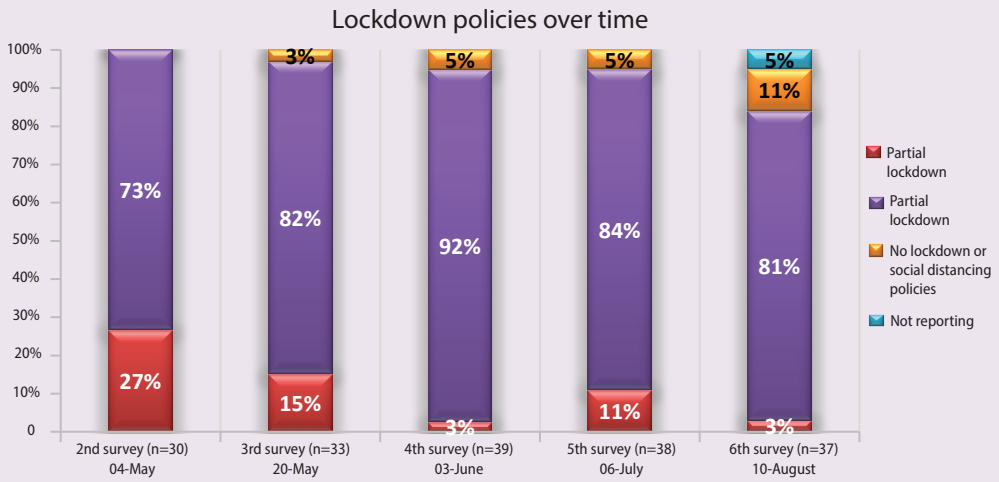
Number of 2nd HPV Vaccine Doses Administered Latin America and the Caribbean, 2019

Country	Type of Population	Number of Second HPV Vaccine Dose by Age						
		9 years	10 years	11 years	12 years	13 years	14 years	15+ years
Anguilla	Female		26	31	4			
Antigua and Barbuda	...	...	...	...	...	...	...	...
Argentina	Female and Male			384,400				
Aruba	Female	NR	NR	517	NR	NR	NR	NR
Bahamas	Female	34	47	123	48	36	403	384
Barbados	Female and Male	...	...	959	...	18	11	38
Belize	Female	481	1,695	1,314	1,122	486	286	ND
Bermuda	Female	...	...	...	...	...	...	...
BES*	...	...	...	...	...	...	...	...
Bolivia	Female	...	76,927	...	...	...	...	...
Brazil	Female and Male	333,711	675,033	1,094,474	1,428,106	1,569,776	1,740,841	6,277,395
British Virgin Islands	Female	...	...	3	...	...	...	...
Canada	...	...	...	...	...	...	...	...
Cayman Islands	...	...	...	...	...	...	...	...
Chile	Female and Male	939	100,075	1,468	454	1,700		
Colombia	Female	37,130	36,685	24,115	19,151	14,315	10,689	25,506
Costa Rica	Female	...	14,097	...	...	...	...	...
Cuba	...	...	...	...	...	...	...	...
Curaçao	NA	NA	NA	NA	NA	NA	NA	NA
Dominica	...	...	...	...	...	...	...	...
Dominican Republic	Female	4,978	1,082	96	59	38	30	NA
Ecuador	Female	110,412	...	...	...	...	...	...
El Salvador	...	...	...	...	...	...	...	...
Grenada	Female	359	0	0	0	0	0	0
Guatemala	Female	0	15,518	96,125	110,691	0	0	0
Guyana	Female and Male	1,166	1,973	1,698	1,151	1,177	720	636
Haiti	...	...	...	...	...	...	...	...
Honduras	Female	NA	NA	59,446	5,497	NA	NA	NA
Jamaica	Female	0	10	96	2,852	2,736	452	225
Mexico	Female	...	1,036,455	...	...	...	...	...
Montserrat	...	...	...	...	...	...	...	...
Nicaragua	...	...	...	...	...	...	...	...
Panama	Female and Male	...	50,604	...	...	...	...	...
Paraguay	Female	...	33,849	...	...	...	...	...
Peru	Female	5,855	74,523	106,945	15,694	5,540	4,284	3,164
Sint Maarten (Dutch part)	...	...	...	...	...	...	...	...
St. Kitts and Nevis	Female and Male	...	...	0	...	...	...	...
St. Lucia	...	...	...	...	...	...	...	...
St. Vincent and the Grenadines	...	...	...	...	...	...	...	...
Suriname	Female	...	...	...	...	...	...	...
Trinidad and Tobago	Female	2	...	1,684	...	...	...	1,771
Turks and Caicos Islands	Female	...	...	34	...	...	...	...
United States of America	...	...	...	...	...	...	...	...
Uruguay	Female and Male	2	5	1,301	5,891	1,577	604	1,159
Venezuela	NA	NA	NA	NA	NA	NA	NA	NA

*Bonaire, St. Eustatius and Saba.

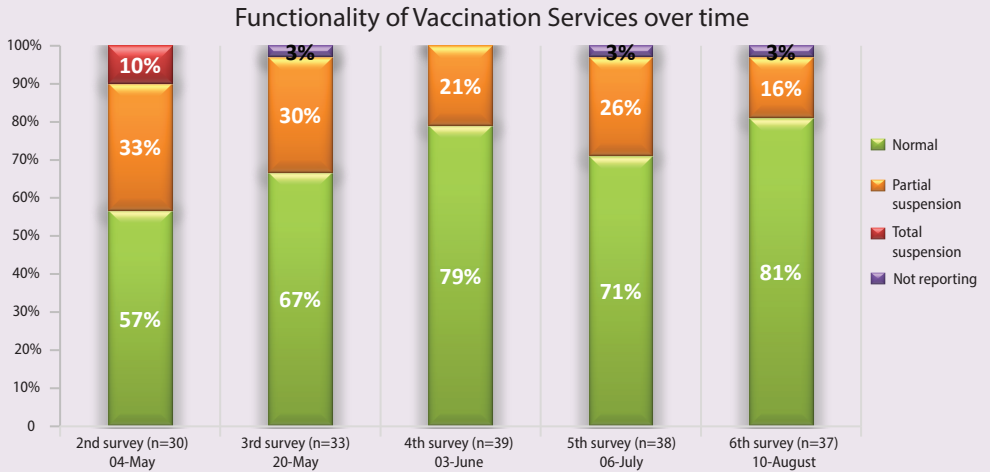
Source: Country reports through the PAHO-WHO/UNICEF Joint Reporting Form (JRF), 2020.

Lockdown Situations and Vaccination Policies over Time

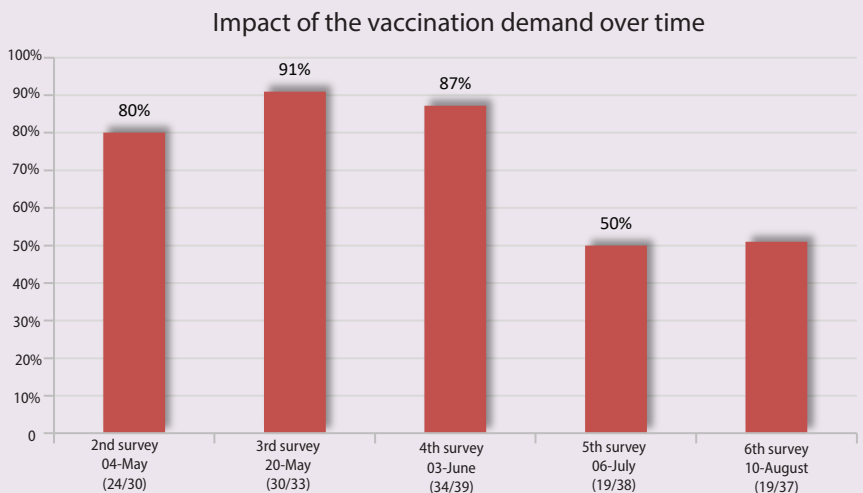
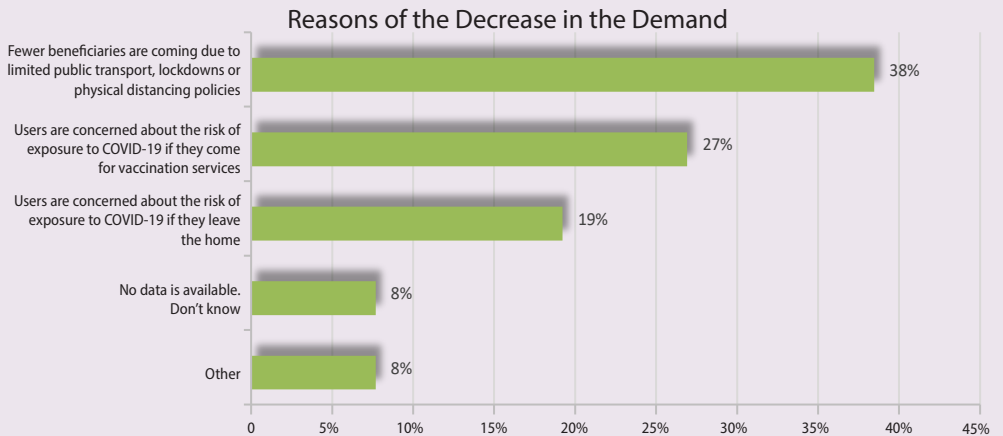


PAHO conducted several polls with PAHO immunization focal points/advisors regarding the status of national immunization programs in the Americas during the COVID-19 pandemic; these polls were sent every two weeks and collected main findings and developments on the situation.

Full document can be accessed at: <https://iris.paho.org/handle/10665.2/52544>



Vaccination Service Demand



Utilized Strategies



©Expanded Program in Immunization - Bolivia

Institutional vaccination



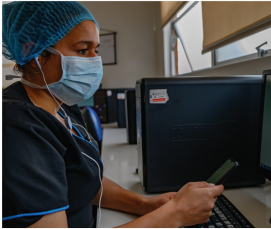
©PAHO/Karina Zambrana - Brazil

Vaccination in cars



©Expanded Program on Immunization - Bolivia

Vaccination in the community



©PAHO/Karen Gonzalez - Colombia

Vaccination appointments



©PAHO/Karen Gonzalez - Colombia

Vaccination at home



©Primary Health Care - Paraguay

Integrated Services

Other Strategies

Vaccination in strategic places, like pharmacies, stadiums, day care centers, cultural centers, banks, schools, work areas, grocery stores

Vaccination in the community and mobile vaccinating centers, where possible

Vaccination according to sex and ID number

Adaptation of vaccination centers and vaccination complying with security measures

Follow-up on vaccination and calling on absentees

Integration with other health and government programs

Health worker referrals

Work with community leaders

Use of social media

Changes in opening hours

The JRF now online ...

In 2021, the work you do for the JRF will be completed using an online form.

We anticipate this change to:

- o *Make it faster and easier to complete*
- o *Lessen the burden on review cycles*
- o *Provide insight into the review cycle*
- o *Allow multiple users to work on the form at the same time*
- o *Provide a secure way to transmit the data*

The electronic Joint Reporting Form (eJRF) was tested by 12 pilot countries from 4 different regions (6 of the countries were from the Americas) in 2020. The pilot countries thought the eJRF was **easy to use, faster to complete**, and that there are **several features to make the process better**.



ELECTRONIC JOINT REPORTING FORM
Powered by WIISE

What is the timeline?

- o *In late **January or February**, we will have a webinar so you can see what the form will look like and view the various features. You will also have an opportunity to ask questions.*
- o *In **March**, the eJRF will be available for use. The tool has built-in training plus we will offer some virtual trainings if you need additional help.*
- o *From **March to April**, you will complete the normal process using the eJRF.*
- o *Technical support will be available throughout the entire process.*
- o *You will receive a survey to provide feedback on the experience for improvement.*
- o *You will be able to see your data using data visualization tools. Exact date and location will be available in 2021.*

Seasonal Influenza Vaccine Use in the Americas, 2019

Country	Healthy Children		Elderly Adults		Other Risk Groups		
	Schedule	Coverage ^(A) (%)	Schedule	Coverage (%)	Health Workers (%)	Pregnant Women (%)	Chronic Diseases ^(G)
Anguilla	NA	NA	yes	...	yes	NA	yes
Antigua and Barbuda	NA	NA	NA	NA	yes	NA	yes
Argentina	6m-24m	75	>65y	...	100 ^D	75	52
Aruba	<2y	...	>60y	...	yes	yes	yes
Bahamas	>6m	...	≥65y	yes	yes	yes	yes
Barbados	NA	NA	NA	NA	yes	NA	NA
Belize	6m-35m	83	≥65y	36	46	72	yes
Bermuda	6m-18y	17	>65y	12	1	10	2
BES*	...	...	...	...	...	...	...
Bolivia	6m-23m	80	>60y	75	100 ^D	96	100 ^D
Brazil	6m-~6a	85	≥60y	99	91	85	88
British Virgin Islands	NA	NA	...	...	2	...	78
Canada	≥6m	...	≥65y	70	yes	yes	yes
Cayman Islands	≥6m	...	...	...	yes	yes	yes
Chile	6m-5y	74	≥65y	68	97	94 ^E	94
Colombia	6m-23m	68	≥50y	72	yes	70	yes
Costa Rica	6m-~6y	...	≥60y	...	yes	yes	yes
Cuba	6m-2y	82	≥75y	86	99	ND	85
Curacao	NA	NA	NA	NA	NA	NA	NA
Dominica	6m-35m	1	≥65y	5	92	20	yes
Dominican Republic	6m-~3y	...	yes	...	yes	yes	yes
Ecuador	6m-4a	99	>65y	76	94	56	100 ^D
El Salvador	6m-11m	57	≥60y	42	100 ^D	48	yes
Grenada	6m-35m	...	>65y	...	yes	yes	yes
Guatemala	6m-35m	88	yes ^C	...	yes	yes	yes
Guyana	NA	NA	NA	NA	NA	NA	NA
Haiti	NA	NA	NA	NA	NA	NA	NA
Honduras	6m-23m	57 ^B	>60y	68	85	85	100 ^D
Jamaica	0m-17y	6	≥65y	25	23	yes ^E	yes
Mexico	6m-59m	91	≥60y	94	yes	81	100
Montserrat	NA	NA	yes	...	yes	NA	NA
Nicaragua	NA	NA	NA	NA	96	98 ^E	100 ^D
Panama	6m-59m	71	>60y	83	95	63	yes
Paraguay	6m-36m	32	≥60y	30	yes	yes	yes
Peru	<2y	58	>60y	47	yes	37	yes
Sint Maarten	NA	NA	NA	NA	NA	NA	NA
St. Kitts and Nevis	NA	NA	>60y	...	yes	7	7
St. Lucia	NA	NA	≥60y	...	yes	yes	yes
St. Vincent	NA	NA	NA	NA	NA	NA	NA
Suriname	NA	NA	>60y	...	yes	yes ^E	yes
Trinidad and Tobago	6m-5y	...	>65y	...	yes	yes ^E	yes
Turks and Caicos	6m-3y	...	≥60y	...	yes	...	yes
United States of America **	≥6m-17y	63	≥65y	68	yes	yes	yes
Uruguay	6m-5y	27	>65y	31	50	30	yes
Venezuela	6m-23m	NA	≥60y	NA	NA	NA	NA

*Bonaire, St. Eustatius and Saba; **USA data during 2018-2019 influenza season; m-month(s); y-year(s).

(A) pediatric coverage formula: ((2nd dose+single dose)/denominator)*100; (B) with chronic disease; (C) institutionalized population; (D) reported coverage >100%; (E) pregnant - chronic condition or trimestral only; (G) countries including adults with chronic diseases in their policy; yes - influenza vaccination recommended.

Source: Country reports through the PAHO-WHO/UNICEF Joint Reporting Form (JRF), 2020; USA data source: <https://www.cdc.gov/flu/fluview/view-coverage-1819estimates.htm>.

Selected Information Products from the Comprehensive Family Immunization Unit

- **Methodology to calculate HPV Vaccine Coverage in the Region of the Americas, 2019:** This document focuses on monitoring HPV vaccine coverage data using administrative data.
- **Tailoring immunization programs:** The Tailoring Immunization Programmes (TIP) approach was developed by the WHO Regional Office for Europe to support countries to achieve high and equitable vaccination uptake. For this, it is necessary to understand barriers to vaccination among population groups with suboptimal coverage. Then solutions can be designed that support, motivate and enable people to be vaccinated, regardless of their income, education, age, geography, ethnicity, religion or philosophical beliefs.
- **COVID-19 documents:** We have published documents with information related to maintaining immunization as an essential health service in the context of the COVID-19 pandemic, and information related to COVID-19 vaccine development.
- **Bacterial Pneumonia and Meningitis Surveillance among Children under 5 years of Age: a Practical Guide:** "Bacterial Pneumonia and Meningitis Surveillance among Children under 5 years of Age: a Practical Guide" has become an outstanding reference for health professionals from the Region of the Americas who are in charge of epidemiological surveillance activities. It explores diseases, main etiological agents, available vaccines, laboratory and surveillance procedures to capture and follow-up on cases, as well as data analysis for the production of relevant information. This second edition presents new concepts and updates procedures in order to reflect the introduction of molecular biology tests in laboratory diagnoses and the availability of new vaccines.

technical notes and data sources

Main Data Sources

For detailed information on demographic data and socioeconomic indicators, please visit: www.paho.org/datastatistics.

Demographic data (columns 1-3,5): World Population Prospects: The 2019 Revision. New York. Accessed June 27, 2019 (<http://esa.un.org/wpp/>). For countries not included in the UN World Population Prospects: U.S. Bureau of the Census. International Data Base. Accessed July 3, 2019 (<https://www.census.gov/data-tools/demo/idb/informationGateway.php>). Women of childbearing age includes women aged 15 to 49 years.

Infant mortality rate (1,000 lb) or number of deaths (N) (column 4): PAHO/WHO. Data provided by Ministries of Health or National Health Agencies of countries. Washington D.C., 2019. As of August 2019.

Socioeconomic indicators (columns 6-10): The World Bank (2019). World Development Indicators 2019. Washington, D.C. June 2019 Update. Accessed June 24, 2019. (<http://databank.worldbank.org/data/home.aspx>). Estimates of the national health expenditure: PAHO/WHO. Data compiled by the Department of Health Systems and Services from the Global Health Expenditure Database. Washington D.C., 2019. As of August 2019. (<http://www.who.int/health-accounts/gshed/en/>).

Immunization coverage, immunization program management, and financing information (columns 11-22, 35-44): Annual country reports to Comprehensive Family Immunization Unit (IM)/PAHO via PAHO-WHO/UNICEF Joint Reporting Form (JRF); 2020.

Morbidity (columns 23-34): Annual country reports to IM/PAHO via JRF, vaccine-preventable disease specific surveillance reports for measles/rubella and polio to IM/PAHO; 2019-2020.

Surveillance indicators: Vaccine-preventable-disease-specific surveillance reports for measles/rubella and acute flaccid paralysis/polio to IM/PAHO; 2019-2020.

Symbols and Abbreviations

(pop) population; (lb) live births; (NA) not applicable; (...) no data; (ppp) purchase power parity; (int'l) international; (GDP) gross domestic product; (BCG) bacille Calmette-Guérin (anti-tuberculosis vaccine); (HepB) hepatitis B; (IPV1) first dose of inactivated polio vaccine; (Polio3) third dose of polio vaccine (oral polio vaccine or inactivated polio vaccine); (DTP1) first dose of diphtheria-tetanus-pertussis vaccine (as DTP or DTP containing vaccine); (DTP3) third dose of diphtheria-tetanus-pertussis vaccine (as DTP containing vaccine); (Rotavirus) last dose of rotavirus vaccine; (PCV3) third dose of pneumococcal conjugate vaccine; (DTP4) first booster dose after the primary series consisting of three doses of diphtheria-tetanus-pertussis vaccine (as DTP or DTP containing vaccine); (MMR1) first dose of measles, mumps, rubella vaccine; (MMR2) second dose of measles, mumps, rubella vaccine (when offered in the routine program; (VDPV) vaccine-derived poliovirus; (CRS) congenital rubella syndrome; (Hib) *Haemophilus influenzae* type b; (NITAG) national immunization technical advisory group; (ESAVI) event supposedly attributable to vaccination or immunization; (gov't) government; (CARPHA) Caribbean Public Health Agencies; (HPV) human papillomavirus; (VINUVA) *Vigilancia Centinela de Nuevas Vacunas*; (Hi) *Haemophilus influenzae*; (Spn) *Streptococcus pneumoniae*; (Nm) *Neisseria meningitidis*; (m) months; (y) years.

Technical Notes

Immunization coverage: Proportion of children aged <1 year vaccinated with one dose of BCG vaccine, hepatitis B vaccine given at birth, first dose of inactivated polio vaccine, the third dose of polio vaccine (oral polio vaccine or inactivated polio vaccine), the first dose of DTP, the third dose of DTP, and the last dose of rotavirus vaccine (2nd or 3rd dose depending on the vaccine used), respectively. Proportion of children vaccinated with the 3rd dose of PCV in children < or ≥1 year according to vaccine schedule of the country. Proportion of children

aged 1 year vaccinated with the first booster of DTP vaccine, and one dose of MMR vaccine, respectively. Proportion of children vaccinated with a second dose of MMR vaccine, as targeted in countries offering a second MMR dose in the routine program. Coverage rates are expressed as a percentage of the corresponding mid-year population, as reported by the country. Reported coverage rates ≥100% are presented as 100% with a footnote. Regional and subregional aggregated data express average values weighted by population aged <1 year and 1 year, when country data is available.

Dropout rate DTP1-DTP3: Number of DTP1 doses administered minus the number of DTP3 doses administered (among children aged <1 year) divided by the number of DTP1 doses, expressed as a percentage.

Morbidity: Number of confirmed cases of VDPV, measles, rubella, CRS, neonatal tetanus, yellow fever, non-neonatal tetanus, pertussis, diphtheria, Hib meningitis, mumps, and meningitis pneumococci. Subregional aggregated data is the sum of the totals. These are not rates; hence, inter-country comparisons may not be appropriate.

Immunization program management and financing:

- Multi-year plan for immunization: Existence of an immunization strategic plan for more than one year.
 - Number of NITAG meetings: Number of times the NITAG met in 2019. NITAGs provide recommendations on immunization practices, including advice on vaccines to be included into the national immunization schedule.
 - Number of municipalities and number of children <1 year of age living in these municipalities reaching coverage ≥95% for DTP3: Proportion of municipalities and proportion of children <1 year of age living in these municipalities reporting coverage levels equal to or greater than 95% for DTP3, respectively, expressed as a percentage. Municipalities are defined as the third administrative level (country level being first), unless otherwise stated.
 - Plan for immunization injection safety: the existence of a plan to ensure the safety of injections, including training, supervision, and the proper use of safety boxes. This plan may be part of the annual immunization plan of action.
 - Number of ESAVIs reported as "serious": An ESAVI will be considered serious if it results in death, is life-threatening, requires in-patient hospitalization or prolongation of existing hospitalization, results in persistent or significant disability/incapacity, or is a congenital anomaly/birth defect. Other situations, such as other important medical events that may jeopardize the patient or may require intervention to prevent one of the outcomes above, should also be considered serious after applying medical and scientific judgment.
 - Spending on routine immunization financed using government funds: Percentage of all recurrent immunization-specific spending that was financed using government funds (for all recurrent inputs, including vaccines, injection supplies, salaries and per-diems of health staff working full-time on immunization, transport, vehicles and cold chain maintenance, training, social mobilization, monitoring, and surveillance). This excludes any external financing from donors, but may include loans.
 - Spending on vaccine purchases financed using government funds: Percentage of all vaccine spending that was financed using government funds. This excludes any external financing from donors, but may include loans.
 - Budget line for vaccine purchase: Specific line in the national budget for the purchase of vaccines.
- Surveillance indicators:** For measles/rubella definitions refer to PAHO. Measles Elimination: Field Guide. (Scientific and Technical Publication No. 605). Washington, D.C.: PAHO, 2005. For acute flaccid paralysis definitions refer to PAHO. Poliomyelitis Eradication: Field Guide. (Scientific and Technical Publication No. 607). Washington D.C.: PAHO, 2005. Available at http://www.paho.org/english/ad/fch/im/FieldGuide_Index.htm.

This brochure is published in collaboration with the Health Analysis, Metrics and Evidence Unit, Department of Evidence and Intelligence for Action in Health (EIH/HA), Pan American Health Organization.

Visit the Comprehensive Family Immunization page at www.paho.org/immunization

PAHO/FPL/IM/21-0012 © Pan American Health Organization, 2021.

Some rights reserved. This work is available under license [CC BY-NC-SA 3.0 IGO](https://creativecommons.org/licenses/by-nc-sa/3.0/).