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Vaccine Diplomacy in Latin America and the Caribbean: The Importance of U.S. Engagement

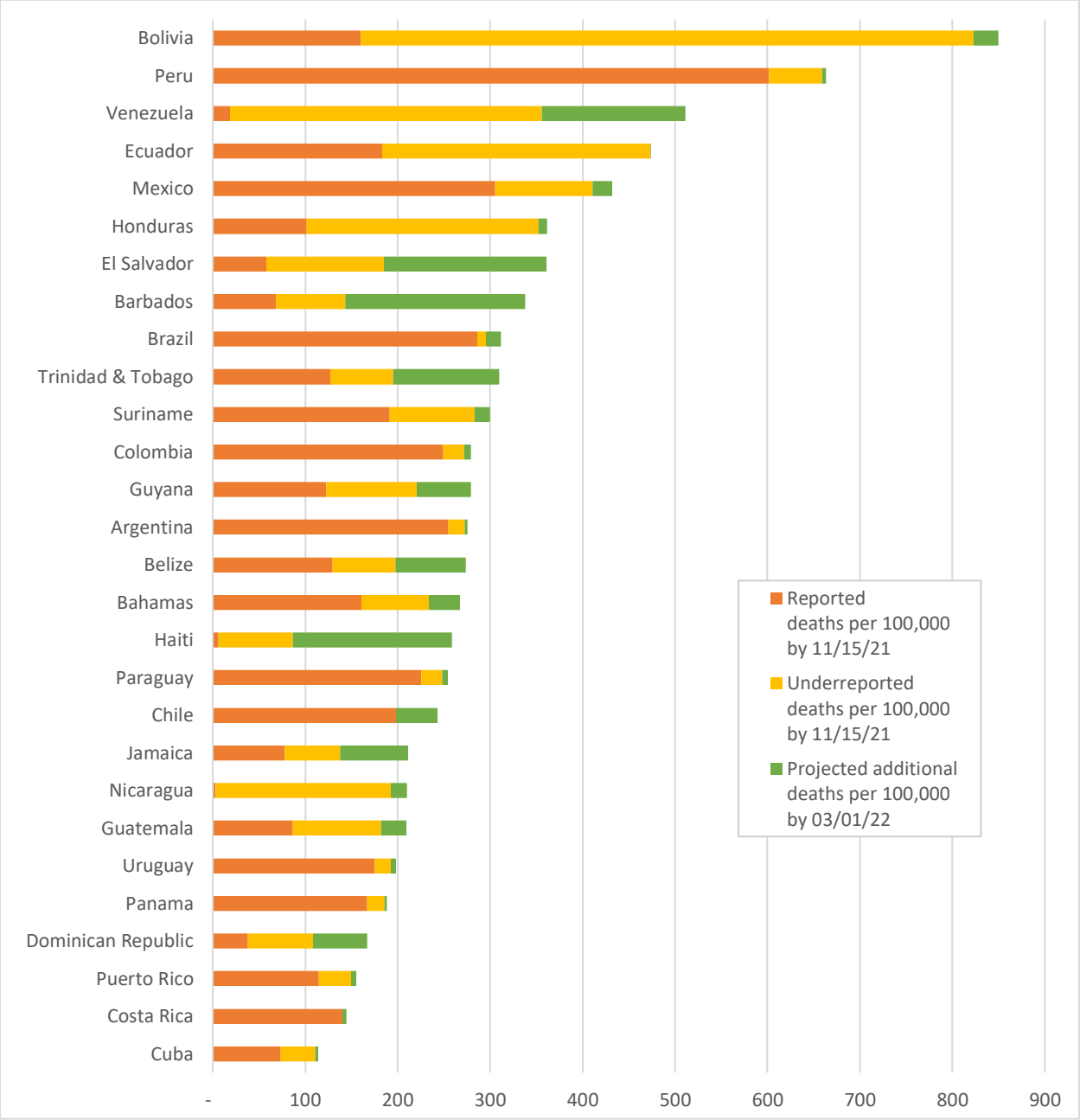
In Latin America and the Caribbean, a region inhabited by 8.5% of the world's population, 46.7 million people have been diagnosed with COVID-19 (18% of world cases), and more than 1.5 million deaths have been reported (30% of world deaths) as of November 15, 2021.[1] Including underreported deaths, it is estimated that the actual figure as of this date is 2.2 million deaths.[2] **Figure 1** shows the reported and underreported deaths per 100,000 population in 27 countries and the Commonwealth of Puerto Rico, as well as the projected additional deaths in the next three and a half months. According to these estimates, Bolivia, Peru, and Venezuela will surpass 500 deaths per 100,000 population by March 1, 2022, followed closely by Ecuador and Mexico.[2] Nicaragua, Venezuela, and Haiti have the greatest underreporting of deaths.[2] **Table 1** provides the number of reported cases and deaths and the projected deaths per country or territory.

Mortality among males has been greater than among females.[3] However, not included in these statistics are the thousands—including women of reproductive age, adolescents, and children—who are estimated to have died due to the disruption of essential health services, the decrease in the use of these services for fear of acquiring COVID-19, and other indirect effects of lockdown-related measures that affect women disproportionately.[4,5,6] Several studies have found a higher prevalence of COVID-19 infection among indigenous, Afrodescendant, and migrant populations compared to other groups and among those in the lower socioeconomic positions, further increasing health equity gaps in the region.[7-9]

In Latin America and the Caribbean, in 2020, the pandemic caused the worse economic contraction in more than a century.[9] The sharp increase in unemployment and loss of income has particularly affected informal workers, deepening social and economic inequalities and increasing poverty.[10,11]

Governments have allocated resources to strengthen the capacity of the health sector to face the pandemic.[12] Still, the response has been insufficient in most of the region due to the chronic underfunding and pre-existing weaknesses of public health systems. In most countries, segmentation between public services, social security services, and private medicine, the concentration of human resources and medical technology in some urban hospitals, the under-financing of primary health care (PHC) and epidemiological surveillance, and the lack of articulation between the different levels of care have weakened the coordinated actions of the national response.[5,10]

Figure 1: Reported, underreported, and projected additional deaths per 100,000 population in Latin American and Caribbean countries and the Commonwealth of Puerto Rico, November 15, 2021 – March 1, 2022



Source: Institute for Health Metrics and Evaluation, COVID-19 Projections, 2021.[2]

Table 1: COVID-19 reported cases and deaths and projected deaths, in total population and per 100,000, November 15, 2021

Subregion and country or territory	Population 2021	COVID-19 cases	COVID-19 cases per 100,000 population	COVID-19 reported deaths	COVID-19 reported deaths per 100,000	COVID-19 projected deaths	COVID-19 projected deaths per 100,000
Mexico and Central America							
Belize	404,915	28,899	7,137	534	132	801	198
Costa Rica	5,139,053	564,159	10,978	7,197	140	7,198	140
El Salvador	6,518,500	117,884	1,808	3,728	57	12,050	185
Guatemala	18,249,868	610,004	3,343	15,714	86	33,249	182
Honduras	10,062,994	376,967	3,746	10,353	103	35,444	352
Mexico	130,262,220	3,844,791	2,952	291,089	223	535,528	411
Nicaragua	6,702,379	13,150	196	210	3	12,925	193
Panama	4,381,583	474,453	10,828	7,341	168	8,134	186
Subtotal	**181,721,512**	**6,030,307**	**3,318**	**336,166**	**185**	**645,329**	**355**
South America							
Argentina	45,605,823	5,305,742	11,634	116,232	255	124,287	273
Bolivia	11,832,936	522,530	4,416	19,004	161	97,410	823
Brazil	213,993,441	21,953,838	10,259	611,222	286	631,901	295
Chile	19,212,362	1,726,481	8,986	37,975	198	38,108	198
Colombia	51,265,841	5,029,335	9,810	127,766	249	139,194	272
Ecuador	17,888,474	519,560	2,904	32,989	184	84,624	473
French Guiana	306,450	45,366	14,804	322	105	n/a	n/a
Guyana	790,329	36,741	4,649	957	121	1,744	221
Paraguay	7,219,641	461,912	6,398	16,335	226	17,907	248
Peru	33,359,416	2,213,548	6,635	200,605	601	219,899	659
Suriname	591,798	50,046	8,457	1,136	192	1,673	283
Uruguay	3,485,152	396,402	11,374	6,101	175	6,717	193
Venezuela	28,704,947	418,900	1,459	5,019	17	102,221	356
Subtotal	**434,256,610**	**38,680,401**	**8,907**	**1,175,663**	**271**	**1,465,685**	**338**
Caribbean (>200K population)							
Bahamas	396,914	22,572	5,687	665	168	929	268
Barbados	287,708	22,093	7,679	193	67	412	338
Cuba	11,326,616	958,738	8,464	8,282	73	12,569	114
Dominican Republic	10,953,714	395,856	3,614	4,170	38	11,884	167
Guadeloupe	400,013	54,854	13,713	822	205	n/a	n/a
Haiti	11,402,528	24,485	215	708	6	9,903	258
Jamaica	2,973,462	90,209	3,034	2,327	78	4,099	211
Martinique	374,743	43,962	11,731	700	187	n/a	n/a
Puerto Rico	2,828,246	186,543	6,596	3,257	115	4,227	155
Trinidad & Tobago	1,403,374	61,922	4,412	1,850	132	2,739	310
Other (<200K population)	1,384,587	105,225	7,600	1,449	105	n/a	n/a
Subtotal	**43,731,905**	**1,966,459**	**4,497**	**24,423**	**56**	**46,762**	**187**
TOTAL	**659,710,027**	**46,677,167**	**7,075**	**1,536,252**	**233**	**2,157,776**	**327**

Source: World Health Organization, Coronavirus Dashboard, 2021;[1] Institute for Health Metrics and Evaluation, COVID-19 Projections, 2021.[2]
Note: n/a = not available.

The underfunding of scientific and technological research and development in most Latin American and Caribbean countries is at the root of the limited capacity to develop novel vaccines in the region. Despite the existence of a regional vaccine procurement mechanism since 1979—the Pan American Health Organization's Revolving Fund for Vaccine Procurement[13]—most countries negotiated access to COVID-19 vaccines in 2020 through bilateral agreements with vaccine developers from the United States, Europe, Russia, and China.[14] At the same time, most also participated in the COVID-19 Vaccines Global Access (COVAX) facility, whose procurement agent in the Americas is the Revolving Fund.[15] As a result, the roll-out of vaccines in the region has been highly uneven. **Table 2** shows the COVID-19 vaccination coverage as of November 12, 2021. Although half of the population in the region is fully vaccinated, large differences exist between countries.

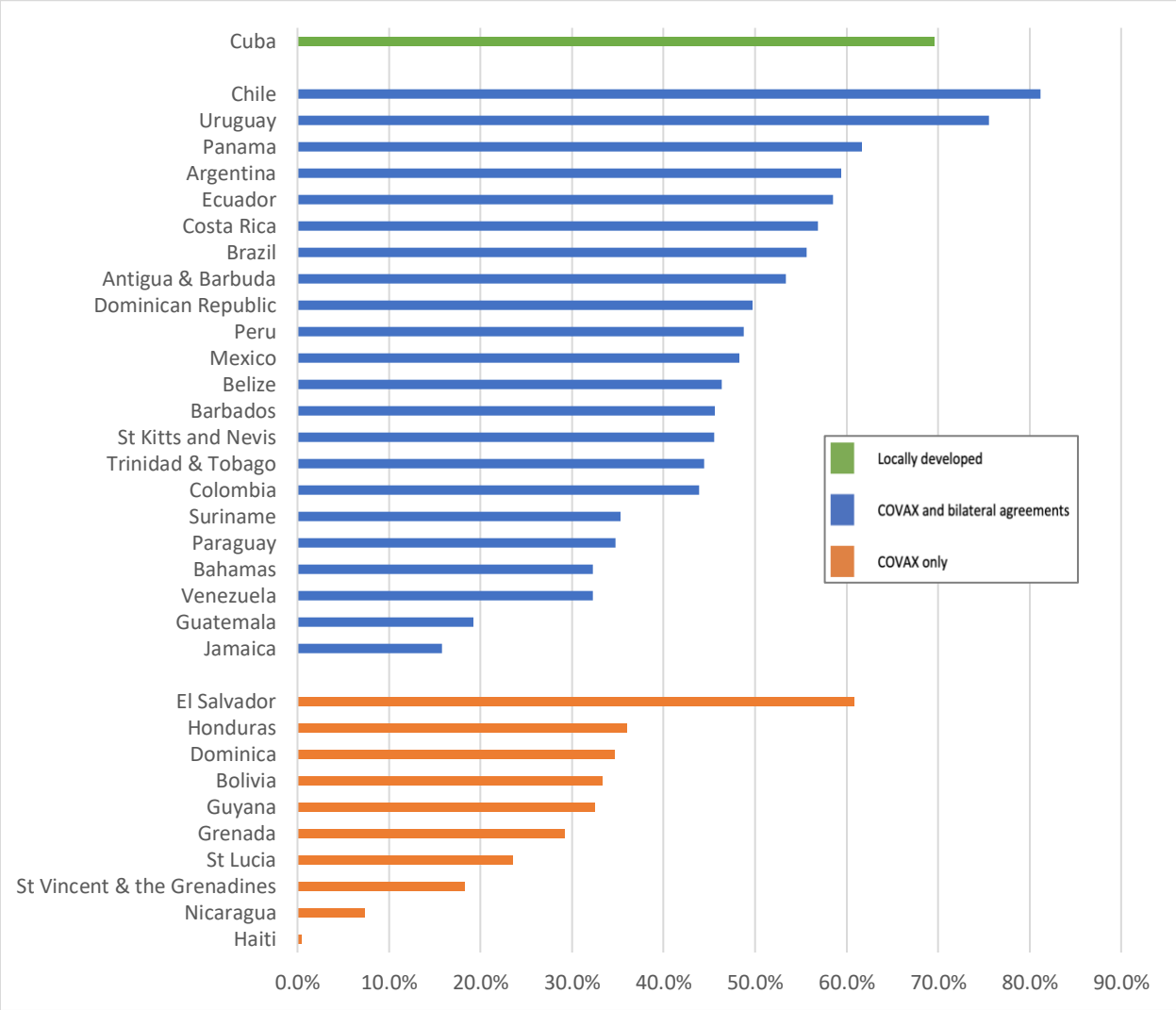
Table 2: COVID-19 vaccination coverage, in total population and percentage, November 12, 2021

Subregion and country or territory	Population 2021	Fully vaccinated (number)	Fully vaccinated (%)	Non or partially vaccinated (number)	Non or partially vaccinated (%)
Mexico and Central America					
Belize	404,915	187,697	46.4%	217,218	53.6%
Costa Rica	5,139,053	2,922,621	56.9%	2,216,432	43.1%
El Salvador	6,518,500	3,964,646	60.8%	2,553,854	39.2%
Guatemala	18,249,868	3,503,181	19.2%	14,746,687	80.8%
Honduras	10,062,994	3,622,891	36.0%	6,440,103	64.0%
Mexico	130,262,220	62,881,897	48.3%	67,380,323	51.7%
Nicaragua	6,702,379	494,411	7.4%	6,207,968	92.6%
Panama	4,381,583	2,701,735	61.7%	1,679,848	38.3%
Subtotal	**181,721,512**	**80,279,079**	**44.2%**	**101,442,433**	**55.8%**
South America					
Argentina	45,605,823	27,090,784	59.4%	18,515,039	40.6%
Bolivia	11,832,936	3,948,595	33.4%	7,884,341	66.6%
Brazil	213,993,441	119,078,546	55.6%	94,914,895	44.4%
Chile	19,212,362	15,604,640	81.2%	3,607,722	18.8%
Colombia	51,265,841	22,501,438	43.9%	28,764,403	56.1%
Ecuador	17,888,474	10,467,328	58.5%	7,421,146	41.5%
French Guiana	306,450	74,658	24.4%	231,792	75.6%
Guyana	790,329	257,196	32.5%	533,133	67.5%
Paraguay	7,219,641	2,508,250	34.7%	4,711,391	65.3%
Peru	33,359,416	16,261,705	48.7%	17,097,711	51.3%
Suriname	591,798	209,025	35.3%	382,773	64.7%
Uruguay	3,485,152	2,632,463	75.5%	852,689	24.5%
Venezuela	28,704,947	9,271,857	32.3%	19,433,090	0.0%
Subtotal	**434,256,610**	**229,906,485**	**52.9%**	**204,350,125**	**47.1%**
Caribbean					
Anguilla	18,424	9,158	49.7%	9,266	50.3%
Antigua & Barbuda	98,728	52,689	53.4%	46,039	46.6%
Aruba	107,195	77,277	72.1%	29,918	27.9%
Bahamas	396,914	128,242	32.3%	268,672	67.7%
Barbados	287,708	131,187	45.6%	156,521	54.4%
Bermuda	72,009	47,365	65.8%	24,644	34.2%
Bonaire	20,104	14,787	73.6%	5,317	26.4%
British Virgin Islands	38,172	16,471	43.1%	21,701	56.9%
Cayman Islands	63,103	55,157	87.4%	7,946	12.6%
Cuba	11,326,616	7,883,145	69.6%	3,443,471	30.4%
Curaçao	164,796	93,334	56.6%	71,462	43.4%
Dominica	74,321	25,748	34.6%	48,573	65.4%
Dominican Republic	10,953,714	5,448,530	49.7%	5,505,184	50.3%
Grenada	113,015	33,028	29.2%	79,987	70.8%
Guadeloupe	400,013	123,412	30.9%	276,601	69.1%
Haiti	11,402,528	48,603	0.4%	11,353,925	99.6%
Jamaica	2,973,462	468,894	15.8%	2,504,568	84.2%
Martinique	374,743	123,201	32.9%	251,542	67.1%
Montserrat	5,404	1,417	26.2%	3,987	73.8%
Puerto Rico	2,828,246	2,364,802	83.6%	463,444	16.4%
Saba	1,933	1,557	80.5%	376	19.5%
St Eustatius	3,138	1,454	46.3%	1,684	53.7%
St Kitts and Nevis	54,166	24,657	45.5%	29,509	54.5%
St Lucia	184,401	43,368	23.5%	141,033	76.5%
St Maarten	44,418	24,515	55.2%	19,903	44.8%
St Vincent & the Grenadines	111,269	20,298	18.2%	90,971	81.8%
Trinidad & Tobago	1,403,374	623,206	44.4%	780,168	55.6%
Turks & Caicos Islands	57,022	27,133	47.6%	29,889	52.4%
Subtotal	**43,578,936**	**17,912,635**	**41.1%**	**25,666,301**	**58.9%**
TOTAL	**659,557,058**	**328,098,199**	**49.7%**	**331,458,859**	**50.3%**

Source: Pan American Health Organization, COVID-19 Vaccination in the Americas, 2021.[16]

The inequity behind the distribution of COVID vaccines in Latin American and the Caribbean is primarily explained by the type of participation in the COVAX mechanism, which has been severely affected by the concentration of doses in high-income countries and the interruption of vaccine exports from the largest manufacturer of vaccines, located in India.[9] As of November 12, 2021, among the ten countries that participate as donor-dependant—Bolivia, Dominica, El Salvador, Guyana, Grenada, Haiti, Honduras, Nicaragua, Saint Lucia, and Saint Vincent and the Grenadines—, 26.1% of the population is fully vaccinated. Coverage ranges from less than 1% in Haiti to 60.8% in El Salvador, shown in **Figure 2**.[16] On the other hand, among the self-financing participants in COVAX—Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Jamaica, Mexico, Panama, Paraguay, Peru, Saint Kitts and Nevis, Suriname, Trinidad and Tobago, Uruguay, and Venezuela—, 51.1% of the population is fully vaccinated. Coverage ranges from 15.8% in Jamaica to 81.2% in Chile.[16] Cuba, which did not participate in COVAX and is the only country in the region that has developed its own vaccines, has fully vaccinated 69.6% of its population.[16]

Figure 2: COVID-19 vaccination coverage per country according to their vaccine procurement mechanism, November 12, 2021



Source: Pan American Health Organization, COVID-19 Vaccination in the Americas, 2021.[16]

The divide reflected by these data can undermine all efforts to bring the pandemic to an end in the Americas, where the COVID-19 pandemic continues to have a devastating impact in part due to the uneven deployment of vaccines, the lack of a regional systematic vaccination strategy, the limited capacity to develop novel vaccines, and the reliance on imported vaccines. Consequently, in September 2021, the Community of Latin American and Caribbean States (CELAC) approved the *Plan for self-sufficiency in health matters in Latin America and the Caribbean*,[17] which includes seven priorities:

1. Strengthen mechanisms for pooled international procurement of vaccines and essential medicines.
2. Use public procurement mechanisms for medicines to develop regional markets.
3. Create consortiums for the development and production of vaccines.
4. Implement a regional clinical trials platform.
5. Take advantage of regulatory flexibilities to gain access to intellectual property.
6. Strengthen regulatory convergence and recognition mechanisms.
7. Strengthen primary health systems for equitable distribution of vaccines and universal access to them.

The United States has the opportunity to help support this regional plan by facilitating technology transfer and the development of manufacturing capacity for mRNA vaccines, training and qualification of specialized human resources, the equipment of national and regional laboratories, and leveraging regional supply chains to help increase production capacity in a region with a population of 660 million and insufficient vaccine development.[18] Latin America and the Caribbean is a region with research capacity, scientific development, and technological innovation centers that should be strengthened to discover and manufacture vaccines.

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