

Vaccination and Vaccine Diplomacy in the Caribbean Ivelaw Lloyd Griffith¹

The current pace [of vaccine access and inoculation] will take us a while to reach the herd immunity required to return our economies to productive levels or minimize the emergence of variants.

– Dr. Joy St. John, Executive Director, Caribbean Public Health Agency²

Stop listening to Anancy stories. Stop listening to people who are less informed, less educated than yourselves ... and false narratives about the vaccines. There are some deep-seated fears and emotions and even religious and ideological views on vaccines ... but that argument bears little value in the context of how medicine and science have combined with faith to heal the world.

- Edmund Bartlett, Tourism Minister of Jamaica³

I. Introduction

The Caribbean and the rest of the world continue to battle COVID-19, the modern-day plague. The scientific, public health, and policy communities within various countries and around the world have marshaled a variety of weapons to counter the pandemic. In addition to critical medical and healthcare staff, these include hand sanitizers, testing kits, oxygen, personal protective equipment (PPE) such as face masks and shields, and ventilators, among other equipment. As the pandemic raged in 2020 and 2021, officials placed a considerable premium on developing vaccines to control, if not prevent, infections and fatalities. Indeed, some scholars

¹ Fellow with Global Americans and the Caribbean Policy Consortium who has published extensively on Caribbean security, drugs, and crime. My next book, <u>Challenged Sovereignty</u>, will be published by the University of Illinois Press. I am grateful for the valuable comments on the first draft by Scott MacDonald, Francille Griffith, and Volderine Hackett.

² Kentish, 2021.

³ Caribbean News Global, 2021. Incidentally, Anancy/Anansi/Nancy/Nansi stories originated in West Africa. They were brought to the Caribbean by Ashanti slaves and were handed down orally through generations. For more on Anancy, see "The Origin of Anancy/Nancy Stories," available at The Origin of Anancy/Nancy Stories – Jamaica Information Service (jis.gov.jm).

posit that "vaccination against diseases, including preventable, contagious, and life-threatening illnesses, is the best public health intervention after water sanitation." (Ortiz-Prado et al, 2021). Vaccinations have become the central focus in our campaign against COVID-19.

Yet, notwithstanding the growing scholarly literature about the pandemic in the Caribbean (see Byron et al., 2020; Chattu and Chami, 2020; and Blazy et al, 2021; for example), few have specifically studied vaccination in the Caribbean. This study, which is a follow-up to an earlier one (Griffith, 2021), aims to help fill this gap. It does so first by offering an appreciation of the various vaccines being employed, and then examining the role of the World Health Organization (WHO), the Pan American Health Organization (PAHO), and other state and non-state actors involved in global health. The report then focuses on the Caribbean region, with a view to understanding some of the vaccine diplomacy dynamics, notably in relation to the great powers and their combination of humanitarianism and geopolitical motives. Cuba warrants—and receives—special attention as a small state that has been punching above its weight in the global vaccine diplomacy arena.

The global vaccination campaign and vaccine diplomacy discussed here fall under the rubric of health geopolitics. Unlike with conventional geopolitics, in health geopolitics nation-states are not the only consequential actors; the range of critical actors is expanded to include non-state actors, such as pharmaceutical companies and multilateral organizations, such as the WHO and PAHO. As Suerie Moon, Research Director and Co-Chair of the Forum on Global Governance for Health at the Harvard Global Health Institute, writes: "Europe, developing countries, the WHO, and the pharmaceutical industry are also key players in this complex, multilevel game. Normative authority, reputation, and scientific knowledge have become strategic sources of power" (2020).

The vaccination campaign is full of challenges, not just in scientific production, given the rapid emergence of COVID-19 variants, but also in terms of access, equity, and acceptance. The head of the Caribbean Public Health Agency (CARPHA)⁴ and Jamaica's tourism minister are

⁴ CARPHA is a regional public health agency that was established in July 2011 and became operational in January 2013. The member states are Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Bonaire, St. Eustatius, Saba, British Virgin Islands, Cayman Islands, Curação, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, Sint Maarten, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, and the Turks and Caicos Islands.

candid in highlighting elements of the complexities and some of the challenges in the epigraph. This report addresses these challenges, probing some of the institutional factors that militate against effective public health service delivery in general and vaccine delivery in particular, and the multifaceted problem of vaccine hesitancy. However, before we begin the vaccination factor journey, it is useful to remind ourselves of the nature of the region's pandemic profile.

II. Vaccination and Vaccine Diplomacy

The region's first COVID-19 cases were reported on March 1, 2020—in St. Martin in a couple who returned from France, and in the Dominican Republic in a 61-year-old man visiting from Italy. And, as Table 1 suggests, it remains a significant malady with deep and long-lasting ramifications. COVID-19 is an equal opportunity pestilence, sparing no part of humanity. When put in Caribbean context, the number of cases worldwide is equivalent to 88 times the population of Jamaica, which is 2.9 million. As regards the deaths, the worldwide number represents 48 times the population of Aruba, which is 107,195. As well, the number of regional deaths amounts to half the entire population of St. Kitts and Nevis, which is 54,166.

According to CARPHA, between November 22, 2021, and November 29, 2021, an additional 16,133 cases of COVID-19 were confirmed in 31 countries, making the total number of cases 2,166,199 in 35 countries. On the other hand, the region's fatalities stood at 27,939 as of November 29, 2021. (CARPHA, 2021a) Thus, declared CARPHA: "The risk of further cases occurring in the Caribbean remains Very High." Indeed, on November 26, 2021, Trinidad and Tobago earned the dubious distinction of having the world's highest daily confirmed COVID-19 deaths per million people, with 22.09 deaths per million people, ahead of the remaining top ten countries: Hungary, Bulgaria, Croatia, Ukraine, Georgia, Armenia, Romania, Latvia, and Bosnia and Herzegovina (Hosein, 2021).

The public health, economic, psychological, and other impacts of the COVID-19 pandemic propelled the scientific, political, business, and other communities across the world into concerted action to develop and deploy a vaccine. And, within a year success was celebrated. Writing in <u>Clinical Cancer Research</u>, one scientific team noted pridefully that: "In less than 1 calendar year, we have gone from identification of the causative agent of the disease to mass production of multiple vaccines capable of eliciting immunologic protection and limiting

the spread of this virus. The truly remarkable pace of this scientific effort is unprecedented in the history of vaccines and medicine in general." (Wherry et al, 2021:2136).

Table 1: Caribbean COVID-19 Situation Report as of November 29, 2021

SINCE LAST SITUATION REPORT, AMONG CMS	GLOBAL 224 countries/areas/territories and international conveyances	CARIBBEAN (including CMS) 35 countries/areas/territories	CARPHA MEMBER STATES 26 countries/areas/territories
Cases increased by: 9,286 (2.1%)	Cases: 260,867,011	Cases: 2,166,199	Cases: 449,951
Deaths increased by: 243 (2.5%)	Deaths: 5,200,267	Deaths: 27,939	Deaths: 10,180
	Vaccinations*: 4,154,184,319	Vaccinated*: 23,554,691	Vaccinated*: 3,232,369

Notes:

- The previous situation report is dated November 22, 2021.
- \blacksquare CMS = CARPHA member states

Source: CARPHA, "COVID-19 Situation Report No 207," available at <u>Sit Report_Word Temp_New (carpha.org)</u>.

Vaccine Production

However, while acknowledging the laudable achievements, venerated scientist Anthony Fauci explained: "The development of several highly efficacious vaccines against a previously unknown viral pathogen, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), in less than 1 year from the identification of the virus is unprecedented in the history of vaccinology." (Fauci, 2021) In pondering the remarkable feat, which itself has contributed to popular skepticism and hesitancy, Fauci explained, "What is not fully appreciated is that the starting point of the timeline for SARS-CoV-2 vaccines was not 10 January 2020, when the Chinese published the genetic sequence of the virus. Rather, it began decades earlier, out of the spotlight." (Fauci, Ibid.).

Figure 1 captures the vaccine production timeline. It traces the history to the year 2001, when the first RNA vaccine was tested in mice. In fact, Wherry and his team highlight several key considerations, including the important role played by "fundamental basic science on the biology of coronaviruses," and the fact that relevant vaccine platforms had been under

development and even already tested in humans. Moreover, they credit "decades of investment in understanding the mechanisms of vaccine-induced immunity, protection from viral infections, pathways by which the immune system generates antibody responses to parts of other coronaviruses provided a foundation from which to start against SARS-CoV2." (Wherry et al, Ibid.) The graphic reveals the year 2020 as the critical action year, although, understandably, it does not capture the extensive collaboration involving governments, scientists, corporations, philanthropists, such as the Gates Foundation, and international organizations, such as WHO and the World Bank.

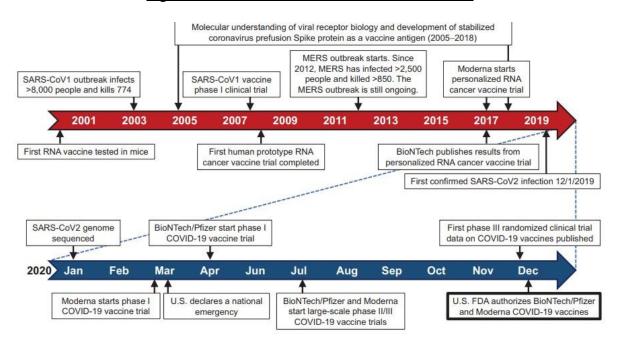


Figure 1: COVID-19 Vaccine Production Timeline

Source: John Wherry et al, "How Did We Get a COVID-19 Vaccine in Less Than 1 Year?," <u>Clinical Cancer Research</u>, February 4, 2021, available at <u>CCR-21-0079 2136..2138</u> (aacrjournals.org).

The concerted vaccine production efforts have paid off handsomely. According to the November 15, 2021, CARPHA vaccine update, 132 candidate vaccines are in clinical development across the world. Twenty four of them received regulatory approvals, and 22 of them are at various stages of action with WHO for emergency use listing. With the WHO's November 3, 2021, approval for emergency listing of India's Bharat Biotech International

Limited's COVAXIN®, there are now eight WHO-approved COVID-19 vaccines (using nine commercial names). (CARPHA, 2021b). Yet, as Figure 2 indicates, there are more than two dozen vaccines in use worldwide. Overall, the aim is to produce 11.1 billion doses of the various vaccines by the end of 2021. Although a vaccine producer may be headquartered in one country, production invariably involves operations in several countries. AstraZeneca's Senior Vice President of Global Biologics Operations, Per Alfredsson, for example, explained that their production entails forming "regional supply chains consisting of more than 20 supply partners in more than 15 countries." (Pladson, 2021)⁵.

One British Broadcasting Corporation (BBC) study shows the global reach of various vaccines, with the number of countries using them as of September 2021: AstraZeneca (170 countries), Pfizer (99 countries), Sinopharm (57 countries), Moderna (47), Sputnik V (43 countries), Sinovac (29 countries), Janssen (24 countries) Covaxin (six countries), CanSino (four countries), and EpiVacCorona (two countries). Additionally, Soberana2, RBD-Dimer, QazVac, and Abdala were all used in one country (BBC, 2021). The Russian and Chinese vaccines encountered significant production and delivery problems at times, which led some countries to cancel their orders. For instance, Brazil once suspended the use of 12 million doses of Sinovac that appear to have been produced in an unauthorized plant. As well, several South and Central American countries threatened to cancel contracts for Sputnik V after significant delivery delays, and in July 2021, Brazil announced cancellation of an order for 10 million doses after their regulatory agency, Anvisa, failed to receive data needed for emergency approval (See Biru, 2021; and Cazzola et al, 2021).

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⁵ For a useful list of vaccine producers, see Joseph, 2021, and for a comprehensive discussion of production efforts and capabilities in the Americas, see Ortiz-Prado et al, 2021. The WHO provides a wealth of discussion and documentation at COVID-19 vaccines (who.int).

Other vaccines COVIran Barekat (Shifa Pharmed) 'Other' vaccines are those in earlier stages of clinical trials and have 11,144,881,000 CoviVac (Chumakov Federal Scientific Center) been added to the forecast, based on their current stated annual production. Here, we have had to estimate when they will start FINLAY-FR-2 (Finlay Vaccine Institute) producing at scale, assuming that they make it through clinical trials, GRAd-COV2 (Reithera/LeukoCare/Univercells) and we assume the scale up time each, however this may differ INO-4800 (Inovio Pharma) LUNAR-COV19 (Arcturus) 9,326,370,000 MVC-COV1901 (Medigen/Dynavax) NasoVAX (Altimmune) 1/ Other OazCovid-in (RI for Biological Safety Problems) S-268019 (UMN Pharma) AstraZeneca 7 690 359 000 SCB-2019 (Clover/Dynavax) Bharat UB-612 (Covaxx) CanSino Vaccine (Anhui Zhifei) Vaccine (Medicago/GSK) 6,238,399,000 Moderna Vaccine (Sanofi/GSK) 1&1 VECTOR NVX-CoV2373 (Novavax) 5,053,651,000 VLA2001 (Dynavax/Valneva) ZyCoV-D (Zydus Cadila) CVnCoV (Curevac) 4.003.520.000 Sinopharm 2.2 billion by the end 3,072,845,000 Sinovac of May Sputnik V 2,248,404,000 1,280,336,405 30/04/2021 31/05/2021 31/08/2021 30/09/2021 31/10/2021 30/06/2021 31/07/2021 30/11/2021 31/12/2021

Figure 2: Global Vaccine Production

Source: Airfinity COVID-19 Vaccine Production and Surplus Doses, available at Airfinity_production.pdf (bio.org).

The WHO has articulated a global vaccination strategy that aims at vaccinating 70 percent of the world's population by mid-2022 in order to provide the necessary population immunity. Guided by principles of Equity, Quality, Integration, and Inclusivity, the strategy document specifies "The goal is to substantially increase population immunity globally to protect people everywhere from disease, protect the health system, fully restart economies, restore the health of society, and lower the risk of new variants." (WHO, 2021b:2). The plan is to vaccinate 40 percent of the population of all countries by end of this year, with the order of priority being health workers, the elderly, individuals with important co-morbidities, all adults, and then adolescents.

Nevertheless, the WHO strikes the following note of alarm: "Although over 6 billion doses of COVID-19 vaccine have already been administered, and global production is now

reaching 1.5 billion doses per month, the world is not positioned to end the pandemic. In areas of high vaccine coverage, there have been massive reductions in serious disease, hospitalization, and death but, globally, vaccine access is highly inequitable with coverage ranging from 1 percent to over 70 percent, depending largely on a country's wealth." (WHO, 2021b, Ibid.). The WHO has set three overall targets: coverage of 10 percent of countries' population by the end of September 2021; 40 percent coverage in all countries by the end of December 2021; and 70 percent coverage in all countries by the end of June 2022. Regrettably, 56 countries, representing 20 percent of the world's population, missed the 10 percent target, although by the end of September, 70 countries had met the 40 percent coverage target. (WHO, 2021b: 4).

Vaccine Diplomacy

As Table 2 shows, Caribbean countries are the recipients of several WHO-approved vaccines through donations and purchase, although Cuba has been administering its home-grown vaccines, as will be seen below. Cuba, the Dominican Republic, and Puerto Rico are not CARPHA members, so data for them are not reflected in Table 2. However, according to PAHO, the Dominican Republic has been deploying three vaccines (AstraZeneca-Vaxzevria, SII-Covishield, and Sinovac-CoronaVac). As of November 9, 2021, it had administered 13, 389,054 doses, with the doses per 100 being 49.04. As for Puerto Rico, its vaccine deployment includes Janssen-Ad26.COV 2.5, Pfizer BioNTech-Comirnaty, and Moderna- mRNA-1273. The authorities there had administered 5,380,709 doses by November 12, 2021. The doses per 100 population was quite high: 83.61. As to Cuba, Johns Hopkins University data indicate that 26,453,315 doses of its Soberana 1, Soberana 2, Soberana Plus, Mambisa, and Abdala vaccines had been administered as of November 11, 2021. 7,810,402 people were fully vaccinated, amounting to 68.91 percent of the population. (See Cuba - COVID-19 Overview - Johns Hopkins (jhu.edu)).

As Table 2 shows, a few countries use just one vaccine. However, most of them use several different vaccines, with some—including Antigua and Barbuda, Belize, Guyana, Belize, Suriname, and Trinidad and Tobago—using five or more vaccines from the United States, Britain, China, Russia, and India. Vaccines have differing profiles. For instance, those by AstraZeneca use viral vector technology, come in two doses, and have a 90 percent efficacy. Moderna's product uses mRNA technology, comes in two doses, and has a 92 percent efficacy.

Similarly, the Pfizer product uses mRNA technology, and is administered in two doses, but has a higher efficacy than the Moderna vaccine: 95 percent. China's Sinopharm vaccine uses inactivated virus technology and comes in two doses, but has an efficacy of 79 percent. The efficacy of another two-dose Chinese vaccine, Sinovac (which is also based on inactivated virus technology), is even lower: 51 percent (Jamaica Ministry of Health and Wellness, 2021). Haiti, with a population of 11.5 million, stands out with the lowest administration of doses per 100 persons at just 0.9. Clearly—and thankfully—its low vaccination rate is the exception, not the rule in the Caribbean. A few countries—notably the Dutch Caribbean (Aruba, Bonaire, Saba) and the Cayman Islands—have exceeded the enviable 70 doses per 100 persons mark. Nonetheless, as will be seen later, vaccine hesitancy is a persisting problem.

How, one might ask, does vaccine diplomacy manifest itself in the Caribbean, and, where, in the context of that manifestation, do Caribbean countries source their vaccines? As regards the first aspect, I endorse Peter Hotez's proposition that "Vaccine diplomacy refers to almost any aspect of global health diplomacy that relies on the use or delivery of vaccines and encompasses the important work of the GAVI Alliance, as well as elements of the WHO, the Gates Foundation, and other important international organizations" (Hotez, 2014: 2). He argues, quite importantly, that an key aspect of vaccine diplomacy is "its potential as a humanitarian intervention and its proven role in mediating cessation of hostilities and even cease-fires during vaccination campaigns." (Hotez, 2014, Ibid). Hotez, however, ignores a crucial aspect of vaccine diplomacy: its dimension related to international power and diplomacy.

It was shown elsewhere that the Caribbean has been an arena for great power geopolitical positioning, as big powers and not-so-big ones try to expand their spheres of influence and garner diplomatic support as they pursue strategic interests. As an example, less than six months into the pandemic, Russia gave pandemic aid to 46 countries around the world, including the United States. Within the same time frame, China had offered Latin American and Caribbean countries US\$ 1 billion in loans to enable them to battle the pandemic. Moreover, China, and India have been offering bilateral aid to several countries in the region (See Griffith, 2021; and Choudhury, 2021). Actually, one writer acknowledged that "the Indian government was also one of the first nations to engage in 'vaccine diplomacy'" (Balasubramanian, 2021). Moreover, although President Donald Trump's "America First" philosophy and his antagonistic attitude

towards the WHO precluded vigorous vaccine diplomacy engagement by the United States before January 2021, the United States has since accentuated its vaccine diplomacy pursuits.

Thus, a combination of humanitarianism and vaccine diplomacy has prompted the provision of vaccines and other pandemic supplies to Caribbean countries by China, India, the United States, Britain, France, Canada, Spain, the African Union, Japan, and non-state entities such as the Gates Foundation. Some of the vaccines are donated and others are sold. In examining China's vaccine diplomacy in Latin America and the Caribbean, Evan Ellis tells us, for example, that "Despite the impression often given by China, the majority of Chinese vaccines are sold to the region, not donated, in contrast to the generous U.S. \$4 billion contribution to COVAX, or those of other developed countries in Europe and Asia" (Ellis, 2021).

<u>Table 2: COVID-19 Vaccines Deployed Among CARPHA Member States</u> as of November 19, 2021

Country ¥	Vaccine(s)	Number of	Doses per
		Doses	100 persons
Anguilla	AstraZeneca - Vaxzevria	19, 066	53.8
Antigua & Barbuda	AstraZeneca – Vaxzevria; Beijing CNBG – BBIBP-CorV; Gamaleya-		61.6
	Sputnik V; Janssen- Ad26.COV 2.5; Pfizer BioNTech – Comirnaty; SII-Covishield	115, 487	
Aruba	Janssen- Ad26.COV 2.5; Pfizer BioNTech - Comirnaty	160, 581	77.6
Bahamas	AstraZeneca – Vaxzevria; Janssen- Ad26.COV 2.5; Pfizer BioNTech – Comirnaty; SII- Covishield	274, 502	37.6
Barbados	AstraZeneca – Vaxzevria; Beijing CNBG – BBIBP-CorV; Pfizer BioNTech – Comirnaty; SII- Covishield	285, 653	52.9
Bonaire	Pfizer BioNTech - Comirnaty	31, 751	83.4
Belize	AstraZeneca – Vaxzevria; Beijing CNBG – BBIBP-CorV; Janssen-Ad26.COV 2.5; Pfizer BioNTech – Comirnaty; SII- Covishield	403, 528	56.1
Bermuda	AstraZeneca – Vaxzevria; Pfizer BioNTech - Comirnaty	89, 841	63.1
Cayman Islands	Pfizer BioNTech - Comirnaty	121, 080	91.2

Table continues on next page.

Curacao	Moderna- mRNA-1273; Pfizer BioNTech - Comirnaty	196, 285	62
Dominica	AstraZeneca – Vaxzevria; Beijing CNBG – BBIBP-CorV; Pfizer BioNTech – Comirnaty; SII- Covishield	55, 134	38.5
Grenada	AstraZeneca – Vaxzevria; Pfizer BioNTech – Comirnaty; SII- Covishield	73, 320	35.1
Guyana	AstraZeneca – Vaxzevria; Beijing CNBG – BBIBP-CorV; Gamaleya- Sputnik V; Moderna- mRNA-1273; Pfizer BioNTech – Comirnaty; SII- Covishield	660, 221	49.9
Haiti	Moderna- mRNA-1273; Janssen- Ad26.COV 2.5	158, 479	0.9
Jamaica	AstraZeneca – Vaxzevria; Janssen- Ad26.COV 2.5; Pfizer BioNTech – Comirnaty; SII- Covishield	1, 067, 575	21.6
Montserrat	AstraZeneca - Vaxzevria	2, 949	28.2
Saba	Moderna- mRNA-1273	3, 131	80.6
Sint Eustatius	Janssen- Ad26.COV 2.5; Moderna- mRNA-1273	2, 963	48.1
Sint Maarten	AstraZeneca – Vaxzevria; Moderna- mRNA-1273; Pfizer BioNTech - Comirnaty	51, 432	60.2
St. Kitts & Nevis	AstraZeneca – Vaxzevria; Pfizer BioNTech - Comirnaty; SII- Covishield	51, 414	48.6
St. Lucia	AstraZeneca – Vaxzevria; Pfizer BioNTech - Comirnaty; SII- Covishield	98, 813	28.9
St. Vincent & Grenadines	Gamaleya - Sputnik V; AstraZeneca – Vaxzevria; Pfizer BioNTech – Comirnaty; SII- Covishield	50, 749	26.3
Suriname	AstraZeneca – Vaxzevria; Beijing CNBG – BBIBP-CorV; Moderna- mRNA-1273; Pfizer BioNTech – Comirnaty; SII- Covishield	468, 275	43.1
Trinidad & Tobago	AstraZeneca – Vaxzevria; Beijing CNBG – BBIBP-CorV; Janssen- Ad26.COV 2.5; Pfizer BioNTech – Comirnaty; SII- Covishield	1, 267, 312	48.1
Turks and Caicos	Pfizer BioNTech - Comirnaty	56, 343	51.2
Virgin Islands (British)	AstraZeneca – Vaxzevria; Janssen- Ad26.COV 2.5	34, 608	47.5

Source: Caribbean Public Health Agency, "Vaccine Update Supplement Week of: 22nd – 26th November, 2021," available at CARPHA COVID-19 Vaccine Update 045 November 22 2021.pdf.

The gifting is done bilaterally, or in a multilateral context through COVAX and PAHO. Formed in 2020, COVAX—the COVID-19 Vaccines Global Access—is co-led by the Coalition for Epidemic Preparedness Innovations (CEPI), the Global Alliance for Vaccines and Immunization (GAVI), and the WHO, with UNICEF as a delivery partner. In the Americas, the PAHO Revolving Fund is COVAX's recognized procurement agent and delivery partner. COVAX aims to facilitate equitable access to vaccines, with a view to removing income as a barrier to access. The initial intent is to make 2 billion doses of vaccines available to the global community by the end of 2021. Guided by WHO emergency use authorizations, the COVAX portfolio currently involves eight vaccines and vaccine candidates — AstraZeneca/Oxford, Pfizer, Moderna, Novavax, Johnson and Johnson's Janssen, SII-Covishield, SII-Covovax, and Sanofi/GSK. The hope is to expand the portfolio to 10-12 vaccines (See WHO, 2021a; WHO, 2021c; BBC, 2021; and Loft, 2021).

COVAX uses funding from donors and self-financing members to support the research, manufacture, and distribution of vaccines. Self-financing members pay for their own vaccines and countries designated as low and lower-middle income can receive vaccines with funding provided by others. COVAX secures its funds mainly from governments, companies and foundations. The United States is the largest donor. In a reversal of his predecessor's approach, President Joseph Biden pledged \$4 billion towards COVAX while addressing the G-7 virtual summit in February 2021. The initial payment of \$2.5 billion has been made, with the remaining \$1.5 billion to be settled later. As of October 2021, the top state donors after the United States include Germany, Japan, the United Kingdom, Sweden, the European Union, Italy, Canada, France, South Korea, Switzerland, Saudi Arabia, Norway, Spain, the Netherlands, China, and Australia. Interestingly, Russia is not a COVAX donor. The Gates Foundation is the largest non-state donor, with a pledge of \$150 million. Some donations take the form of services or products. For instance, Google donated US\$15 million in advertising credits and has promised engineering support for the enterprise's innovation agenda (Statista, 2021; GAVI, 2021; and Loft, 2021).

Table 3, which reveals the donations to the Caribbean through COVAX, largely reflects United States' gifts to the region through PAHO. As noted earlier, PAHO is the COVAX delivery partner for the Americas. Table 3 also indicates that most of the deliveries were made between March and October 2021, reflecting not only President Biden's February COVAX commitment at the G-7 Summit, but, more significantly, his announcement in August 2021 of the donation of 5.5 million doses for the CARICOM member countries. This followed the April 2021 virtual meeting of the CARICOM Foreign Ministers with Secretary of State Antony Blinken (See U.S. Department of State, 2021). As Table 3 shows, Jamaica was the first Caribbean country to receive vaccines through the COVAX facility. This occurred on March 15, 2021, when 14,400 doses of the AstraZeneca vaccine, manufactured by SK Bioscience of South Korea, were delivered (Caribbean Med Labs Foundation, 2021).

Table 3: COVAX Deliveries in the Caribbean as of November 24, 2021

Country	Vaccine supplier	Buyer	Quantity (doses)	Arrival
Antigua & Barbuda	AstraZeneca AB	РАНО	24,000	April 8, 2021
	AstraZeneca AB	РАНО	16,800	June 9, 2021
	AstraZeneca AB	РАНО	19,200	Nov 17, 2021
Bahamas	AstraZeneca AB	РАНО	33,600	March 30, 2021
	AstraZeneca AB	РАНО	33,600	May 11, 2021
	AstraZeneca AB	РАНО	33,600	August 3, 2021
	Pfizer Overseas LLC	РАНО	57,330	October 18,2021
Barbados	AstraZeneca AB	РАНО	33,600	April 6, 2021
	AstraZeneca AB	РАНО	33,600	May 11, 2021
	AstraZeneca AB	РАНО	33,600	August 24, 2021
Belize	AstraZeneca AB	РАНО	33,600	March 31, 2021
	AstraZeneca AB	РАНО	33,600	May 12, 2021
	AstraZeneca AB	РАНО	33,600	August 3, 2021
	Pfizer Overseas LLC	РАНО	58,500	October 27, 2021
Bermuda	AstraZeneca AB	РАНО	9,600	April 6, 2021
Dominica	AstraZeneca AB	РАНО	28,800	April 6, 2021
Dom Republic	AstraZeneca AB	РАНО	91,200	April 6, 2021
	AstraZeneca AB	РАНО	187,200	May 14, 2021
	AstraZeneca AB	РАНО	184,800	August 27, 2021
Grenada	AstraZeneca AB	РАНО	24,000	April 9, 2021
	AstraZeneca AB	РАНО	21,600	May 26, 2021
Guyana	AstraZeneca AB	РАНО	24,000	March 29, 2021
	AstraZeneca AB	РАНО	38,400	May 10, 2021
	AstraZeneca AB	РАНО	19,200	August 14, 2021
	AstraZeneca AB	РАНО	38,400	August 14, 2021
	Pfizer Overseas LLC	United States	100,620	October 8, 2021
Haiti	Moderna	United States	500,000	July 14, 2021
	Moderna Switzerland			
	Switzerland GmbH	United States	100,100	Nov. 3, 2021
Jamaica	AstraZeneca AB	РАНО	14,400	March 15, 2021

	AstraZeneca AB	РАНО	55,200	April 26, 2021
	AstraZeneca AB	РАНО	55,200	May 30, 2021
	AstraZeneca AB	Canada	100,800	Sept. 14, 2021
	AstraZeneca AB	Spain	100,800	Sept. 16, 2021
	AstraZeneca AB	Germany	108,000	October 12, 2021
	Pfizer Overseas LLC	РАНО	100,620	October 29, 2021
	AstraZeneca AB	Canada	369,600	Nov. 1, 2021
St. Kitts & Nevis	AstraZeneca AB	РАНО	21,600	April 7, 2021
St. Lucia	AstraZeneca AB	РАНО	24,000	April 7, 2021
	AstraZeneca AB	РАНО	26,400	May 12, 2021
	AstraZeneca AB	РАНО	24,000	Sept. 1, 2021
St Vincent				
and the Grenadines	AstraZeneca AB	РАНО	24,000	April 7, 2021
	AstraZeneca AB	РАНО	21,600	May 25, 2021
Suriname	AstraZeneca AB	РАНО	24,000	March 26, 2021
	AstraZeneca AB	РАНО	28,800	May 10, 2021
	AstraZeneca AB	РАНО	26,400	August 9, 2021
Trinidad & Tobago	AstraZeneca AB	РАНО	33,600	March 30, 2021
	AstraZeneca AB	РАНО	33,600	May 10, 2021
	AstraZeneca AB	РАНО	33,600	August 11, 2021

Source: "PAHO Tracker COVAX Initiative Covid-19 Vaccine Deliveries in the Americas," 2021, available at Microsoft Power BI.

However, Table 3 provides just a partial portrait of the donations to the region. Vaccine diplomacy engagement has witnessed other overtures, including bilateral ones by China, India, and Russia. Earlier this year, for example, China gave 20,000 doses each to Dominica and Guyana, and 500,000 doses to Venezuela. However, China's engagement with the Dominican Republic involved both donation and sale; a gift of 50,000 and sale of 10,000,000 doses (Karaskova and Blablova, 2021). Importantly, China's engagement reflects not just its global power reach efforts but its strategic positioning vis-à-vis the United States (See Karaskova and Blablova, 2021; Evans, 2021; and Gramer, 2021). Moreover, as one analyst has explained, China also has been employing vaccine diplomacy to advance other political and strategic objectives.

For instance, "Both Brazil and the Dominican Republic reversed prior commitments to exclude the Chinese vendor Huawei from their nations' 5G networks, after receiving Chinese commitments to deliver their vaccines" (Ellis, 2021).

As might be expected, China's vaccine diplomacy dynamics also reflected its geopolitical competition with Taiwan. None of the Caribbean countries that recognize Taiwan—Belize, Haiti, St. Kitts and Nevis, and St. Vincent and the Grenadines—have received any vaccines from China. Of course, this dynamic was not restricted to the Caribbean. For instance, Guatemala, Honduras, Nicaragua, and Paraguay—countries with diplomatic ties with Taiwan—are among the few countries in Latin America that have not received Chinese vaccines (Harrison, 2021). Vaccine diplomacy most likely also played a role in the February 2021 diplomatic drama in Guyana when China was able to convince Guyana to reverse its decision to allow Taiwan to open a trade office in the capital, Georgetown, within hours of the announcement being made (Tiezzi, 2021). Moreover, as Harrison explained, President Juan Orlando Hernández of Honduras was influenced by the vaccine situation during his Taiwan-China dealings when, in May 2021, he considered opening a trade office with China to access China's vaccines. This led to a flurry of activities by Taiwan to forestall a possible diplomatic switch, including a three-day state visit to Taipei from November 19 to 21 by President Hernández. (See Yahoo News, 2021)

In relation to India, CARICOM countries were gifted 500,000 doses of the AstraZeneca vaccine. Barbados received 100,000 doses of the donation. The Barbidians gave 1,500 of their gifted doses to Guyana, 2,000 to Trinidad and Tobago, 1,000 to St Lucia, 500 to Grenada, and 1,000 to Belize. Plus, India gave 70,000 doses to Dominica, which, in turn, gave 2,000 to St Lucia, 5,000 to Antigua and Barbuda, 5,000 to St Vincent and the Grenadines, 2,000 to St Kitts and Nevis, and 500 to Grenada. The Dominican Republic and Guyana also were beneficiaries of India's pandemic diplomacy, with the former receiving 30,000 doses, and the latter, 80,000 doses (Wyss, 2021; Fraser, 2021; and Stabroek News, 2021a).

Guyana received a delivery of 25,000 doses of the Sputnik V vaccines in April 2021. It was the first batch of 200,000 doses arranged through the United Arab Emirates at a cost of US\$4 million. So far, Guyana has received five shipments of the Sputnik V vaccine, totaling 244,268 first doses and 61,268 second doses (See Guyana Chronicle, 2021; and Newsroom, 2021). Russia's vaccine dealings also have extended to St. Vincent and the Grenadines, trumping

COVAX. After receiving an anonymous gift of 1,000 doses of Sputnik V vaccines, which is a two-dose treatment, the Eastern Caribbean nation invested US\$1 million in acquiring 100,000 doses of the vaccine. Prime Minister Ralph Gonsalves explained, "A number of people don't want to take AstraZeneca because of all the stuff coming out of Europe. The stories about blood clots, all the ups and downs in France and Germany, restrictions for people over a certain age. That made some people timid, they were saying they were waiting for another vaccine. Some people said they were waiting for Sputnik V." (News 784, 2021)

Cuba Dynamics

Evidently, then, Caribbean states have been recipients of pandemic assistance and objects of health geopolitical positioning. Cuba has been an exception, though. It has been a practitioner of vaccine diplomacy, punching above its weight on the global pandemic stage. It is the only Caribbean nation able to produce COVID-19 vaccines, and one of only two countries in the entire Latin America and the Caribbean to do so, the other being Brazil. Cuba has developed five vaccines: Soberana 1, Soberana 2, and Soberana Plus, produced by the Finlay Vaccine Institute, and Mambisa and Abdala, produced by the Center for Genetic Engineering and Biotechnology. Symbolism attaches to the names. Soberana, for instance, means "sovereign" in Spanish, while Mambisa is named after 19th century independence fighters, and Abdala is named after a patriotic verse by Cuban independence hero José Martí. In the verse, the young hero, Abdala, heads to combat to defend his homeland full of patriotic fervor. Mambisa also is distinctive, in being an intranasal needle-free vaccine. (See Biru, 2021; Yaffe, 2021; Pieper, 2021; and Grant, 2021).

We saw earlier that the other vaccines use mRNA, viral vector, or inactivated vaccine platforms. However, the Cuban vaccines are all protein-subunit technology. As one Duke University report explains, "Protein subunit vaccines are generally cheaper to manufacture and don't require extreme refrigeration, which makes them more suitable for resource limited settings than mRNA vaccines like Pfizer-BioNTech's Comirnaty" (Biru, 2021). Cuba's vaccines do not have the endorsement of the WHO yet, which limits the country's ability to sell or donate them widely, although discussions to that end began in September 2021 (Jamaica Observer, 2021). But, as will be seen below, several nations have sufficient trust and confidence in Cuba's medical scientific capabilities that they have purchased and used its vaccines.

Cuba's vaccines hold their own in terms of efficacy when compared with those produced by developed countries with an abundance of resources. For instance, the efficacy of the three Soberana vaccines, which is 91, 91.2, and 92.2 percent, is on par with Moderna's (92 percent). Moreover, it outperforms China's Sinopharm (79 percent) and Sinovac (51 percent) and India's Covaxin (77.8 percent). This is a remarkable feat for an underdeveloped country, and all the more so when one considers the enormous difficulties the United States embargo has presented over the last several decades. How can this be, one might ask? To its credit, Cuba has long invested heavily in science, medicine, biotechnology, pharmaceuticals, and public health, including maintaining three laboratories with equipment and staff trained to conduct virus tests. As a result, the one-party state of just over 11 million people has offered citizens free universal healthcare and has the world's highest ratio of doctors to population. Furthermore, they have a high life expectancy and low infant mortality.

Cuba's vaccine diplomacy also has at least three global engagement dimensions. University of Glasgow Cuba specialist Helen Yaffe highlights one of those dimensions, which is the collaboration between Cuban and Chinese scientists to produce a new vaccine named Pan-Corona, which is designed to be deployed against different strains of the coronavirus. The expectation is that this new vaccine will promote generation of antibodies by using parts of the virus that are conserved rather than those prone to variation. The terms of engagement involve Cuba providing personnel and technical capabilities, while China supplies the equipment and other resources. The plan is to have the research conducted at the Yongzhou Joint Biotechnology Innovation Center in Hunan Province. The Center was established in 2020 with equipment and laboratories designed by the Cubans. The joint-venture project builds on some two decades of science collaboration between the two countries, including five joint ventures in the biotechnology area (Yaffe, 2021).

Clearly, though, ideology does not command the once-vaunted pride of place in the country's health geopolitical landscape. This is evident from the second international dimension of the country's vaccine diplomacy. An aspect of the international dimension of Communist Cuba's vaccine diplomacy is driven by a fundamental capitalist pursuit: commerce and profit making, which is necessitated partly by survival imperatives occasioned by the now six-decades-old economic embargo imposed by the United States. As an example, on April 8, 2021,

Venezuelan Vice President Delcy Rodriguez confirmed that the Abdala vaccine will be produced by Venezuela's Socialist Enterprise for the Production of Biological Medicines for use within and beyond Venezuela. She explained: "Cuba will hand over the patent to Venezuela. We will produce the vaccine for our people and the countries of the Bolivarian Alliance for the Peoples of Our America (ALBA)" (TeleSUR, 2021). Later that month, Argentina began talks with Cuba to produce their Soberana vaccine, and in June a deal was struck with Venezuela for the sale of \$12 million worth of vaccines. Moreover—and as demonstration of Cuba's global reach—in September 2021, Cuba exported the first batch of vaccines to Vietnam. Earlier, Cuba and Iran had agreed for Cuban vaccines to be produced there.Jamaica, Mexico, and Nicaragua have also expressed interest in the Cuban product (See Merco Press, 2021; Marsh, 2021; Frank, 2021; and Rodriguez, 2021).

The third dimension relates to Cuba's international medical support group. Known officially as the Henry Reeve International Contingent of Physicians Specializing in Disaster Situations and Serious Epidemics, the group was established in September 2005 to assist countries facing medical and public health challenges. It comprises medical doctors, nurses, and other medical, public health, and disaster professionals. One record of the brigade's prepandemic work credits it with sending 28 teams to 22 countries, involving 7,950 health professionals to assist in the aftermath of 16 floods, eight hurricanes, eight earthquakes, and four epidemics. Following the outbreak of the pandemic, Cuba deployed 56 teams to more than 40 countries. Overall, the contingents involved almost 5,000 health professionals, including 2,821 women, providing care for more than 1,090,799 people in Europe, Latin America and the Caribbean, Africa, the Middle East (PAHO, 2021e: 32-33). Needless to say, Cuba's engagement through the medical teams has not been driven purely by humanitarian or ideological motives; foreign currency acquisition has been a key consideration (See Baggott and Lambie, 2019).

In the Caribbean, Antigua and Barbuda, Barbados, Belize, Dominica, Grenada, Haiti, Jamaica, St. Kitts and Nevis, St. Vincent and the Grenadines, St. Lucia, Suriname, and Trinidad and Tobago are the beneficiaries of Cuba medical diplomacy. The Henry Reeve outfit recorded a point of pride in sending to Trinidad and Tobago its first-ever, all-women team, composed of 11 university-trained nurses (PAHO, 2021e:34). Indeed, the work of the medical brigade during the pandemic, against the backdrop of previous decades of stellar engagement, inspired individuals,

and groups in various parts of the world to nominate the brigade for the 2021 Nobel Peace Prize. One of the United States nominators was Lawrence Wilkerson, former Chief of Staff to recently-deceased former U.S Secretary of State and Chairman of the Joint Chiefs Colin Powell (See <u>Dissident Voice</u>, 2020).

Notwithstanding the considerable achievements related to the pandemic, Cuba experienced some backlash locally, which affected its health geopolitics. Cuba had received deserved plaudits for its management of the pandemic during 2020. However, the economic downturn caused by the pandemic, tough virus control measures, shortages of basic commodities, rising prices, and power shortages combined led to growing popular discontent, which erupted in mass protests across the island in July 2021. However, contrary to the hopes and expectations of some local and foreign activists and analysts, the protests were not sustained and significant enough to threaten the country's internal security and governance. Still, the authorities were forced to recall some of the medical brigades from their foreign postings to fill some of the local deficits (See Morris, 2021; and Oppmann, 2021).

Evidently, while the COVID-19 pandemic has presented the Caribbean with a multiplicity of public health, economic, psychological, and other challenges, vaccine diplomacy has provided the region with some key means of meeting the pandemic threat as vaccines are the primary weapons in the battle against the virus. Although most Caribbean countries have been relatively successful in the vaccine diplomacy arena with the procurement of vaccines, vanquishing the COVID-19 enemy is not guaranteed merely with this acquisition. In this respect, as with other jurisdictions, Caribbean countries are contending with challenges related to institutional effectiveness and vaccine hesitancy, among others.

III. <u>Institutional Effectiveness and Hesitancy</u>

Irrespective of the country examined, there is no disputing that the effectiveness of any public health campaign depends on the structural and functional wellbeing of the public health system. But the reality throughout the Caribbean, perhaps with the exception of Cuba, is sub optimality in relation to most if not all of countries' public health infrastructure, notably in relation to financing, workforce, technology, basic equipment, trained and adequate staffs, and service delivery. Thus, a finding in relation to the Global South strikes a chord of resonance with the Caribbean: "Health systems already facing enormous challenges, underfunded and under-staffed,

are the norm rather than the exception at the time of the emergence of COVID-19" (Shamasunder et al, 2020: 1083).

One excellent recent survey of the region's public health systems concludes: "While it is evident that health system responses to shocks have improved over time in the Caribbean, HSR (Health System Resilience) capacity still remains weak across several domains for many islands. This is especially apparent with the ongoing COVID-19 pandemic, which is burdening many health systems in the region. ... Further, with the high prevalence of NCDs in the region, countries need to provide adequate and accessible routine health services, which continue to be maintained even in the event of a shock" (Khan and Harnam, 2021: 60). Consequently, and unsurprisingly, the pandemic has revealed the weaknesses of public health systems, especially in rural areas and in the riverain areas of places such as Guyana and Suriname. Institutional weakness is a perennial challenge that directly impacts the effectiveness of the vaccine campaigns and could undermine some of the gains of the region's vaccine diplomacy.

As if this challenge was not enough, so with practically every other part of the world, the region also has to contend with the challenge of vaccine hesitancy. The hesitancy challenge is a multifaceted one. One aspect of it relates to the thriving coexistence of "fake news" and what PAHO calls an "infodemic," the latter being "an overabundance of information on a problem that makes it hard to find trustworthy sources and reliable guidance" (PAHO, 2021e:40). Social media, in particular, facilitates this dangerous coexistence, but traditional media also helps it. This combination fuels vaccine Nancy stories, as Tourism Minister Edmund Bartlett noted in the epigraph. His admonition bears echoing throughout the region: "Stop listening to people who are less informed, less educated than yourselves."

As PAHO explains, "these communications phenomena have accompanied the COVID-19 pandemic since its beginning. This problem has been exacerbated by the daily flood of information on COVID-19, much of which comes to people who lack the necessary elements to critically evaluate information on a novel virus that is affecting the entire world at the same time. Accordingly, a lot of inaccurate content has circulated during this information avalanche" (PAHO, 2021e:40-41). The wide availability of smartphones has expanded access to the internet and social media. Yet, this is a double-edged sword. As remarked in one report, "Although this can be a great tool for self-education, which is a key component of vaccination decision-making,

it also presents several challenges in the form of misinformation (including 'anti-vaxx' messaging) and incomplete information, as well as inconsistent and complicated scientific information that may be difficult to understand" (Machingaidze and Wiysonge, 2021:1339).

Consequently, many official and non-profit entities struggle continuously to dispel myths and promote relevant facts. As an illustration, Jamaica's Ministry of Health and Wellness is one of several entities throughout the region, along with the WHO and PAHO, that maintain websites with pages dedicated to countering some of the Anancy stories, as Minister Bartlett characterized the falsehoods (See Myths and Facts - COVID-19 Vaccine Implementation Programme (https://vaccination.moh.gov.jm/myths-and-facts/)). Among the myths and facts captured there are the following:

- □ Myth: The COVID-19 vaccine causes infertility in women.
- ☐ Fact: No vaccine suspected of impacting a person's ability to conceive, has ever been or will ever be approved
- □ Myth: Once I receive the vaccine, I will test positive for COVID-19.
- ☐ Fact: Viral tests look for the presence of the virus that causes COVID-19. Since there is no live virus in the vaccine, the vaccine cannot affect your test result.
- □ Myth: I have already been diagnosed with COVID-19, so I do not need the vaccine.
- □ Fact: If you have already had COVID-19, you will still need to take the vaccine as it is not known for how long natural immunity will last. Since COVID-19 can have severe health risks and the possibility of re-infection, the recommendation is to take the vaccine.
- □ Myth: Only the elderly need to take the vaccine.
- ☐ Fact: Anyone can get COVID-19, some of whom have become seriously ill. All eligible adults should take the vaccine.

Myths and misinformation are so powerful that the absence of significant deaths by vaccinated individuals appears of no consequence for the skeptics.⁶ Besides, mistrust of

⁶ Although small consolation, Caribbean countries can take comfort that, unlike in parts of Latin America, they do not have to contend with the additional problem of disinformation in relation to the pandemic in general and vaccination efforts in particular. (See Global Americans, 2021) Disinformation is viewed as "the deliberate dissemination of inaccurate information that seeks to undermine public confidence, distort facts, and convey a certain way of perceiving reality, especially designed to exploit social and political vulnerabilities to destabilize democratic societies." (Global Americans, 2021:11)

government or of information produced by government agencies is another aspect of the hesitancy challenge. This is aggravated in cases where government deliberately misled citizens in a previous serious medical or public health scandal. Such is the case in the French Caribbean, where memories of a chemical poisoning episode that witnessed complicity of government officials are quite fresh. The chemical, chlordecone, which was sold commercially as Kepone, was used widely between 1972 and 1993 in Martinique and Guadeloupe to protect banana plantations from insects.

Consequently, some 90 percent of the adult population of the two islands suffered from chemical poising, resulting in high rates of prostate, stomach, and pancreatic cancer, reputedly among the highest rates worldwide. Protests erupted on several occasions, most recently in February of this year, over the government's handling of the debacle; several lawsuits also were filed. One citizen captured the dilemma eloquently: "They told us it was OK to drink the water, and we found out later the state had lied to us. How can you expect us to trust the government?" (Hird, 2021; see also RFI, 2021). Thus, it was not surprising that the anger over the chemical poisoning would spill over into the discontent over COVID-19 vaccine mandates. Riots, looting, and arson erupted causing the French authorities to deploy a contingent of elite security forces from mainland France to Guadeloupe in November to quell the unrest (DW, 2021). As expected, the rioting also extended to Martinique. Interestingly, not only were the anti-vaxxers able to claim some victory with the French government's announcement of the suspension of the vaccine mandate for health workers, but independence advocates began to salivate at the prospects of a break away from French rule with the mention by minister for overseas affairs, Sebastien Lecornu, of likely talks about Guadeloupe's autonomy in the near future (Van Overstraeten et al, 2021; Associated Press, 2021; and Soupama and Charlton, 2021).

In many places, skepticism about the utility of the vaccines also is influenced by faith in or familiarity with herbal remedies and natural medicine that have been known to treat some of the symptoms of the virus long before its advent. In fact, one reporter captured the reality in saying "Traditional medicine is popular in the French Caribbean, where plants such as lion's ear, blue porterweed, mountain mint, and sage are used to treat everything from stress and high blood pressure to respiratory problems and flu. There's a strong belief plants can protect against the coronavirus by boosting natural immunity" (Hird, 2021, Ibid). Of course, the relevance of this

observation extends beyond the French Caribbean. In one case—Haiti—the government actively pursued and promoted this approach. Indeed, in May 2020, then-president Jovenel Moise held a video conference with Andry Rajoelina, his counterpart in Madagascar, about importing an artemisia-based cocktail that reputedly had been successful in treating COVID-19 in Madagascar and elsewhere in Africa. The artemisia annua herb is the main ingredient in some malaria drugs (Finnan, 2020). Concoctions of turmeric, garlic, ginger, and other roots and herbs also remain popular in many households in the Caribbean and its Diaspora (See Givens, 2020; Jamaica Loop News, 2020; Chavez, 2020; Omokhua-Uyi and Van Staden, 2021; and Silveira et al, 2020).

IV. Conclusion

Our analysis above suggests that the COVID-19 pandemic continues to present a clear and present danger to the Caribbean. That danger has necessitated action by Caribbean nations and by partners in the international community, given the interdependence nature of the global architecture. As a matter of fact, the advent of the new and reputedly more pernicious Omicron variant portends new dangers for the global commons. Vaccine diplomacy provides a window into the thinking and pursuits of Caribbean and global actors in responding to the pandemic.

Needless to say, for the small states of the region that are objects of vaccine diplomacy as well as for outlier Cuba, which punches above its weight on the global vaccine battlefield, controlling if not vanquishing the virus is not just a public health matter; it is an existential one. As one respected European friend of the region has posited, "for the Caribbean, the issue of vaccine supply is not just for protecting public health, but for longer term economic recovery and stability" (Jessop, 2021). Striking a note of practicality in relation to Jamaica, but relevant to most of the region, Minister Edmund Bartlett contended that "vaccine hesitancy must go for growth to take place" as he encouraged tourism workers to get vaccinated (Caribbean News Global, 2021).

All indications are that the vaccine diplomacy journey has ways to go, as the pandemic still rages globally and in the Caribbean. But notable victories have been scored along the way. Indeed, German observer remarks "For the small island states of the Caribbean, vaccine diplomacy is crucial to managing the COVID-19 pandemic. Even if their population is barely that of a district of São Paulo, countries like Grenada and Antigua and Barbuda are sovereign states, and as such they have a seat and vote at the United Nations – just like Brazil or Mexico"

(Hoffmann, 2021). Putting things in comparative context, he notes that "The 15 states in the Caribbean Community (CARICOM) together have more voting power than the whole of South America. And the current crisis shows how this sovereignty can be converted into a supply of vaccines that larger states can only dream of" (Hoffmann, 2021, Ibid). One can only hope that dreams are not transformed into nightmares.

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