

## Weekly COVID-19 Epidemiological Update - Region of the Americas

Issue 43, published November 29, 2022

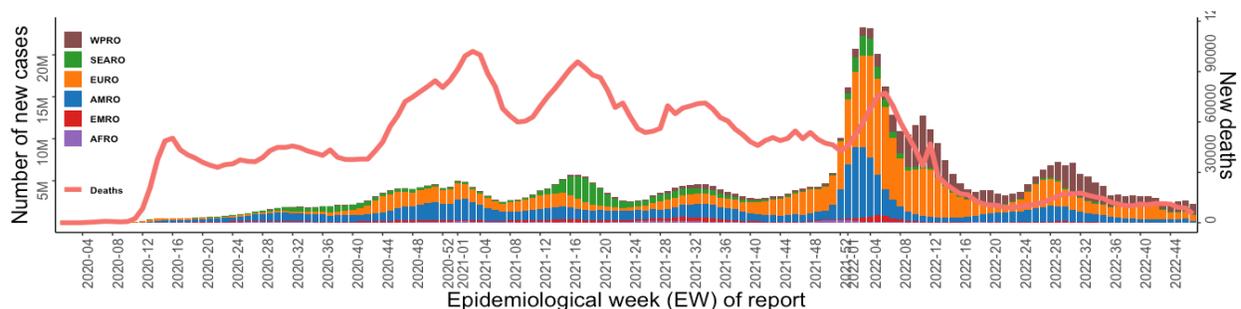
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### Executive Summary

- **Since the onset of the pandemic** in 2020 and up to November 29, 2022, a cumulative total of approximately 637.9 million COVID-19 cases including about 6.6 million deaths were reported from all six WHO regions. During epidemiological week (EW) 47, cases decreased in four regions while they increased in WPRO (8.4%) and AMRO (18.9%). COVID-19 deaths decreased in three regions while they increased in WPRO (2.8%), SEARO (5.3%), and AMRO (21.4%).
- **Globally**, approximately 2,680,718 new COVID-19 cases were reported in EW 47 (November 20, 2022-November 26, 2022) – a 2.1% increase compared to EW 46 (November 13, 2022-November 19, 2022) (**Figure 1**). For the same period, 8,360 new COVID-19 deaths were reported globally – a -5.7% relative decrease compared the previous week.
- **In the region of the Americas**, 551,978 cases and 3,828 deaths were reported in EW 47 - a 18.9% increase in cases and 21.4% increase in deaths compared to the previous week.
- At the subregional level, COVID-19 cases increased in two subregions – the North American subregion (5.6%) and the South American subregion (49.1%). Deaths increased in all subregions (range: 12.6 – 68.1%) with the exception of the Central American subregion (-57.9%).
- The overall weekly case notification rate for the region of the Americas was 54 cases per 100,000 population during EW 47 (45.4 the previous week). Between EW 47 and 46, the 14-day COVID-19 death rate was 6.8 deaths per 1 million population (6.4 the previous two weeks).
- Among 21 countries/territories in the region with available data, **COVID-19 hospitalizations** increased in 11 countries and territories (range: 1% - 120%) during EW 47 compared to the previous week. Among 18 countries and territories with available data, COVID-19 **ICU admissions** increased in 8 countries and territories (range: 0.4% - 100%).

**Figure 1:** COVID-19 cases and deaths by epidemiological week (EW) of report and WHO region. EW 4, 2020 - EW 47, 2022.

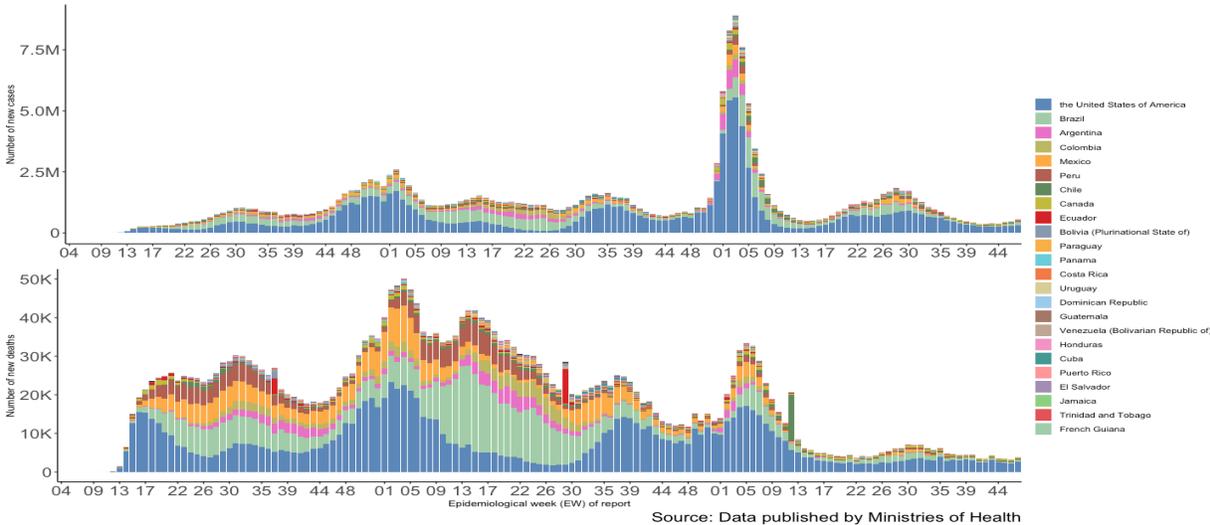


Source: Data from WHO COVID-19 Dashboard

Data are retro-adjusted every week and the numbers and percent changes of COVID-19 cumulative cases and deaths may not match with the previous COVID-19 weekly situational reports.

# Region of the Americas - An overview

**Figure 2:** COVID-19 cases and deaths by epidemiological week (EW) of report and country/territory. Region of the Americas. EW 3, 2020 - 47, 2022.



During EW 47, 551,978 new **COVID-19 cases** were reported in the region of the Americas - a relative increase of 18.9% compared to previous week (**Figure 2**). The highest number of COVID-19 cases in the last week was reported from North America (312,152 cases, 5% increase) compared to the previous week. (**Table 1**). During EW 47, at the national level, the highest proportion of weekly COVID-19 cases were reported by the United States of America (296,882 new cases, 7.9% increase), Brazil (150,008 new cases, 64.3% increase), Chile (33,684 new cases, -13.7% decrease).

**Table 1:** Weekly change (%) in cases and deaths between EW 46 and EW 47 by subregion. Region of the Americas

Subregion	Total Cases	Total Deaths	Cases EW 46	Deaths EW 46	Cases EW 47	Deaths EW 47	% Change Cases	% Change Deaths
Caribbean and Atlantic Ocean Islands	4,267,358	35,510	9,062	36	6,933	53	-23.5%	47.2%
Central America	4,039,898	53,711	8,898	38	8,189	16	-8.0%	-57.9%
North America	108,862,983	1,448,034	295,592	2,557	312,152	2,880	5.6%	12.6%
South America	64,752,141	1,332,405	150,723	523	224,704	879	49.1%	68.1%

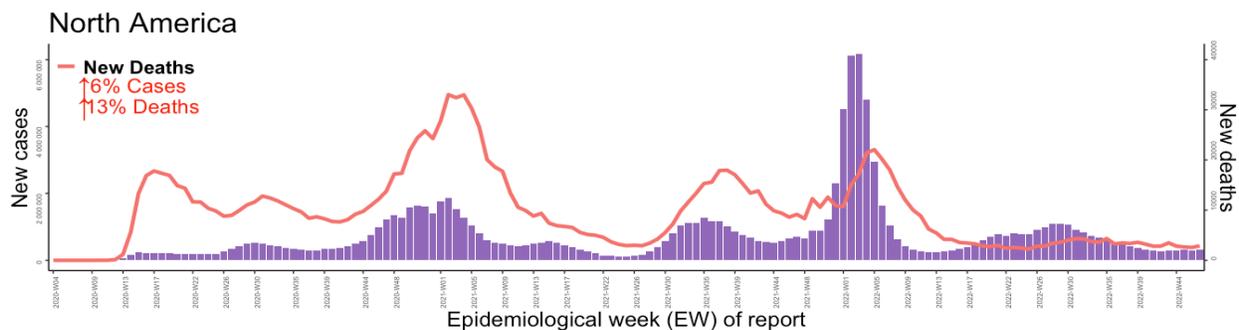
For the same period, 3,828 **COVID-19 deaths** were reported in the region of the Americas - a relative increase of 21.4% compared to previous week (**Figure 2**). The highest number of COVID-19 deaths in the last week was reported from North America (2,880 deaths, 12% increase) (**Table 1**). At the national level, the highest proportion of weekly COVID-19 deaths were reported by the United States of America (2,611 new deaths, 16.3% increase), Brazil (535 new deaths, 113.1% increase), and Canada (268 new deaths, -9.8% decrease).

**A summary of the COVID-19 trends for EW 47 by subregion is presented below.**

## North America

The overall trends for **COVID-19 cases** have been increasing in North America as of EW 47. The United States of America reported a 7.9% increase in weekly cases (n=296,882) during EW 47, Canada reported a decline in weekly deaths – Canada (15,082 cases, -6.7% decrease) compared to the previous week. Please note that data for EW 47 for Mexico was not publicly available, resulting in a data artifact in percent changes in cases and deaths (188 cases, -95.7 % decrease & 1 death, -92.9% decrease).

**Figure 3: COVID-19 cases and deaths by epidemiological week (EW). North America.** Region of the Americas. EW 3, 2020 - EW 47, 2022.



For the same period, the overall trends for **weekly COVID-19 deaths** increased by 12.6% (n=2,880 deaths) after a three-week period of a declining trend in North America during EW 47 relative to the previous week. Similar to weekly cases, the United States of America reported an increase in weekly deaths (2,611 new deaths, 16.3% increase), while Canada (268 new deaths, -9.8% decrease) reported a decline in deaths during EW 47 compared to the previous week.

During 47, similar to the previous week, both two countries in North America with available data for **COVID-19 weekly hospitalizations and ICU admissions** reported no substantial changes compared to the previous week. Weekly hospitalizations and ICU admissions in the United States of America continued to remain stable – a 3.4% increase of weekly hospitalizations (n=29,149) and a 3.3% increase in ICU admissions (n=3,492) relative to the previous week. In Canada, both weekly hospitalizations and ICU admissions decreased by 5.5% (n=5,100) and 7.8% (n=247) respectively compared to the previous week.

The Omicron **variant of concerns** (VOC) of BA.5 are predominant in all three countries in the subregion. In the United States of America, the proportion of the BA.5 subvariant has been gradually decreasing over the past two months – accounting for 19.4%, while the estimated proportions of BA.5 sub-lineages, BQ.1 and BQ.1.1, have been increasing over the past two months – accounting for 57.3% of sequences for the week ending on 26 November 2022<sup>1</sup>. The BA.5 and BA.4 sub-lineages made up about 88.7% (including 3.5% of BQ.1, 8.4% of BQ.1.1 and 7.1% of BF.7) and 8.1% the week of 30 October 2022 in Canada<sup>2</sup> and 85.7% and 14.3% as of EW 44 in Mexico, respectively.

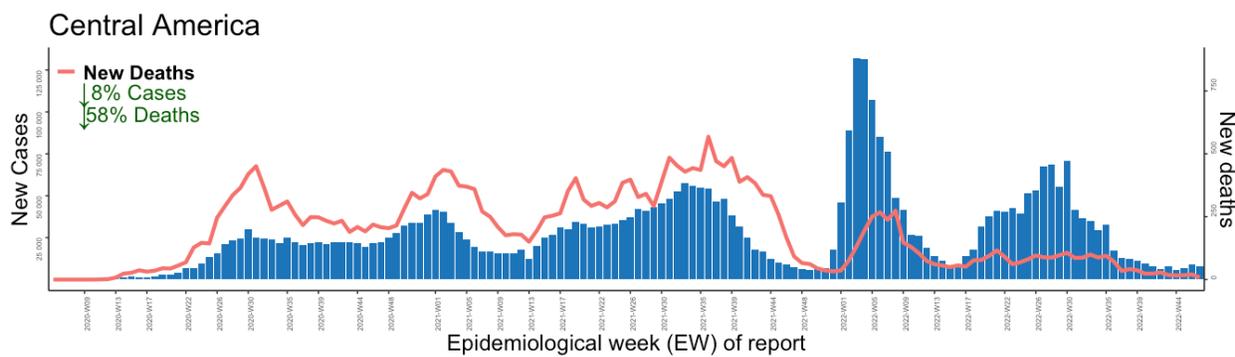
1 The United States Centers for Disease Control and Prevention (CDC). Variant Proportions. Accessed 29 November 2022. Available at: <https://bit.ly/3Obz8cT>

2 Public Health Agency of Canada (PHAC). COVID-19 Epidemiological Update. Accessed 29 November 2022. Available at: <https://bit.ly/3bbFRFr>

## Central America

In Central America, the overall **COVID-19 incidence** for the sub-region has decreased by 8% with 8,189 new cases being reported during EW 47 compared to the previous week (**Figure 4**).

**Figure 4:** COVID-19 cases and deaths by epidemiological week (EW). **Central America. Region of the Americas.** EW 6, 2020 - EW 47, 2022.



During EW 47, **COVID-19 weekly cases** increased in three countries and territories in the subregion – the highest relative increase in cases being reported from Honduras (515 new cases, 404.9% increase), followed by Guatemala (5,099 new cases, 74.1% increase) and Belize (24 new cases, 50% increase). Two countries reported a decline in cases – Nicaragua (13 new cases, -18.8% decrease) and Costa Rica (2,538 new cases, -7.1% decrease) compared to the previous week. Please note that data for EW 47 for Panama was not publicly available, resulting in a data artifact in percent changes in cases and deaths.

For the same period, **weekly deaths** decreased by approximately -57.9% (n=16) relative to the previous week (**Figure 4**). Four out of the seven countries and territories reported a decline in weekly deaths (range: -100 to -41.7% decrease), while Belize reported an increase in deaths (1 death, 100% increase) compared to the previous week. The countries with the largest proportion of reported deaths during EW 47 included Guatemala (8 new deaths, -60% decrease) and Costa Rica (7 new deaths, -41.7% decrease).

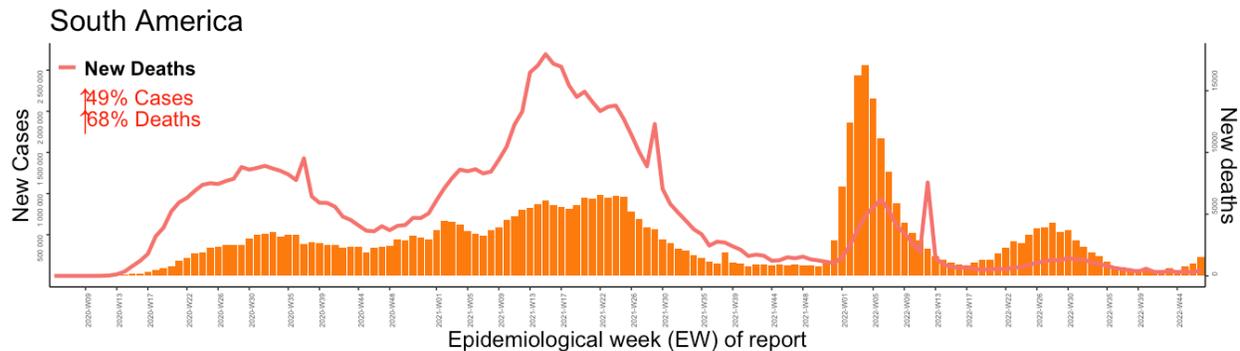
Among three countries/territories with available data for **weekly COVID-19 hospitalizations** in the Central American subregion, two countries reported an increase in weekly hospitalizations – Costa Rica (85 hospitalizations, 3.7% increase) and Honduras (10 hospitalizations, 66.7% increase), while Belize reported a decline in weekly COVID-19 hospitalizations (0 hospitalization, -100% decrease). All three countries and territories with available data for **weekly COVID-19 ICU admissions** either reported a decline – Costa Rica (9 ICU admissions, -40% decrease) – or reported no ICU admissions during EW 47 compared to the previous week (Honduras, Belize).

To date, Omicron lineages BA.4 and BA.5 have been reported from six of the seven countries and territories in the subregion respectively – Costa Rica, Panama, Guatemala, El Salvador, Nicaragua, and Belize.

## South America

In South America, the overall **COVID-19 incidence** for the subregion has increased for the third consecutive week – an increase of 49.1% (n=224,704) in weekly cases being reported during EW 47 compared to the previous week, primarily due to an increase observed in Brazil and Peru (**Figure 5**).

**Figure 5: COVID-19 cases and deaths by epidemiological week (EW). South America. Region of the Americas. EW 3, 2020 - EW 47, 2022.**



Out of the 10 countries and territories the sub-region, seven experienced an increase in cases during EW 47 (range: 7.6 – 322.7% increase). The largest relative increase in weekly cases was observed in Paraguay (93 new cases, 322.7% increase), followed by Peru (32877 new cases, 127.7% increase), and Brazil (150,008 new cases, 64.3% increase) relative to the previous week. The remaining two countries reported a decline in weekly cases – Chile (33,684 new cases, -13.7% decrease) and Ecuador (710 new cases, -1% decrease) – while Venezuela (Bolivarian Republic of) did not report any changes in weekly cases during EW 47 (471 new cases, 0%).

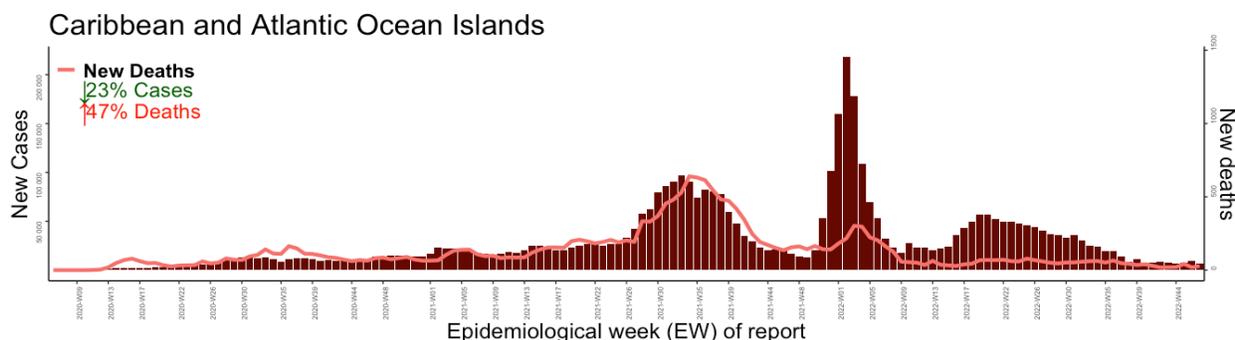
During EW 47, a total of 879 **COVID-19 deaths** were reported in South America – a 68.1% increase compared to the previous week. Similar to weekly cases, seven countries in the subregion reported an increase in weekly deaths (range: 5.5 – 600% increase). The largest proportion of reported deaths were reported by Brazil (535 new deaths, 113.1% increase), followed by Chile (192 new deaths, 5.5% increase), and Peru (110 new deaths, 93% increase). The remaining three countries and territories either remained the same or reported a decline (range: -100% – 0% change).

Among three countries and territories in the subregion with data available for **COVID-19 weekly hospitalizations**, two countries reported an increase in their weekly COVID-19 hospitalizations – Peru (218 hospitalizations, 75.8% increase) and Chile (1,377 hospitalizations, 1% increase) relative to the previous week. For the same period, all four countries and territories with data available for **COVID-19 ICU admissions** reported an increase in their weekly COVID-19 ICU admissions (range: 0.4 – 57.1% increase), with the highest relative increase being observed in Peru (55 ICU admissions, 57.1% increase), followed by Uruguay (13 ICU admissions, 30% increase) relative to the previous week.

To date, Omicron lineage BA.4 and BA.5 have been reported from eight out of the 10 countries in the subregion respectively – Argentina, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, and Venezuela (Bolivarian Republic of).

# Caribbean and Atlantic Ocean Islands

**Figure 6: COVID-19 cases and deaths by epidemiological week (EW). Caribbean and Atlantic Ocean Islands.** Region of the Americas. EW 6, 2020 - EW 47, 2022.



In the Caribbean and Atlantic Ocean Islands sub-region, **COVID-19 weekly cases** decreased by -23.5% compared to the previous week (**Figure 6**). At the national level, cases increased in 15 out of the 34 countries and territories in the subregion (range: 4.2% - 466.7%) while it declined in eight countries and territories (range: -100% - -1.4%). The remaining 11 countries and territories either did not report substantial changes or did not report any cases during EW 47.

For the same period, **COVID-19 weekly deaths** increased by 47.2% (53 deaths) in the subregion. Three countries and territories in the subregion observed a relative increase in their weekly deaths during EW 47 compared to the previous week (range: 29.2 – 100% increase). Two countries and territories reported a decline – Guadeloupe (0 death, -100% change) and Trinidad and Tobago (3 deaths, -50% decrease), while two remained the same – Aruba and Curaçao (1 death, 0% change respectively) in weekly deaths relative to the previous week.

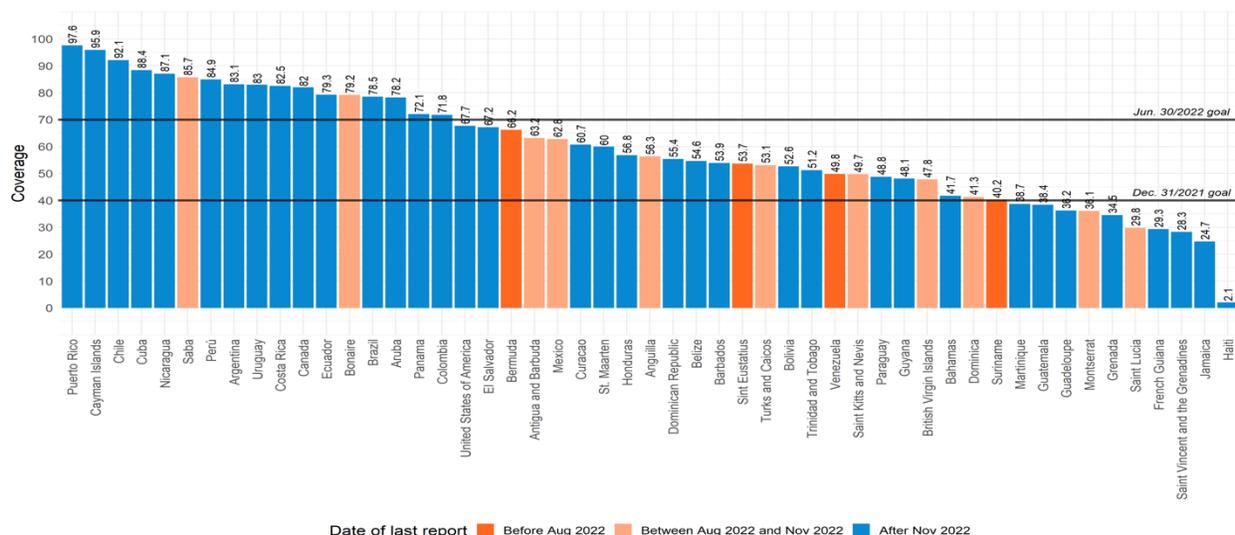
During EW 47, among 13 countries and territories with available data for **weekly COVID-19 hospitalizations**, six countries and territories reported an increase in their weekly COVID-19 hospitalizations (range: 3.9 – 120% increase). The highest relative increase was observed from French Guiana (22 hospitalizations, 120% increase), followed by the Dominican Republic (16 hospitalizations, 77.8% increase). Among nine countries and territories with data available for **COVID-19 ICU admissions**, three reported an increase in their weekly COVID-19 ICU admissions (range: 1-4 ICU admissions, 100% increase), four remained the same, and the remaining two reported a decline in ICU admissions during EW 47 compared to the previous week (range: -66.7 - -50% decrease).

**Notable increases in weekly cases** in the subregion during EW 47 were observed in Saint Pierre and Miquelon (17 new cases, 466.7% increase), followed by Turks and Caicos Islands (6 new cases, 200% increase), Saint Martin (17 new cases, 142.9% increase), and French Guiana (722 new cases, 134.4% increase) relative to the previous week.

To date, Omicron lineages BA.4 and BA.5 have been reported from 18 and 17 out of 34 countries and territories in the subregion, respectively, including the overseas territories of France, the Netherlands, the United Kingdom, and the United States of America. However, these trends should be interpreted with caution due to the presence of differences in sequencing capacity and sampling strategies between countries and territories.

# Immunization

**Figure 7:** Primary Series Coverage\* for COVID-19 vaccination in the Region of the Americas. As of EW 47, 2022.



The figure 7 shows the primary series coverage for COVID-19 vaccination in the region of the Americas as of EW 47, 2022.

Out of the 51 countries and territories of the Americas, 17 have achieved the 70% target for COVID-19 vaccination coverage that was originally set by WHO for 30 June 2022. Also, 10 countries and territories remain below the 40% mark.

Data reporting to PAHO has declined in frequency over the last months. For example, 11 countries and territories last reported coverage data between August and November 2022, while 4 have not reported these data for 4 months or more. On the other hand, 36 countries updated their coverage data after 1 November 2022. It is important to note that most of the countries that have not updated their coverage data belong to the group of 24 countries with vaccination rates between 40% and 70%. It becomes increasingly difficult to monitor coverage and provide relevant and up-to-date statistics, since data for many countries is out-of-date.

## Genomic surveillance

Through PAHO's Genomic Surveillance Regional Network and the work from the Member States, 484,170 full genome sequences of SARS-CoV-2 from Latin America and the Caribbean have been uploaded to the Global Initiative on Sharing All Influenza Data (GISAID) platform up to 29 November 2022.

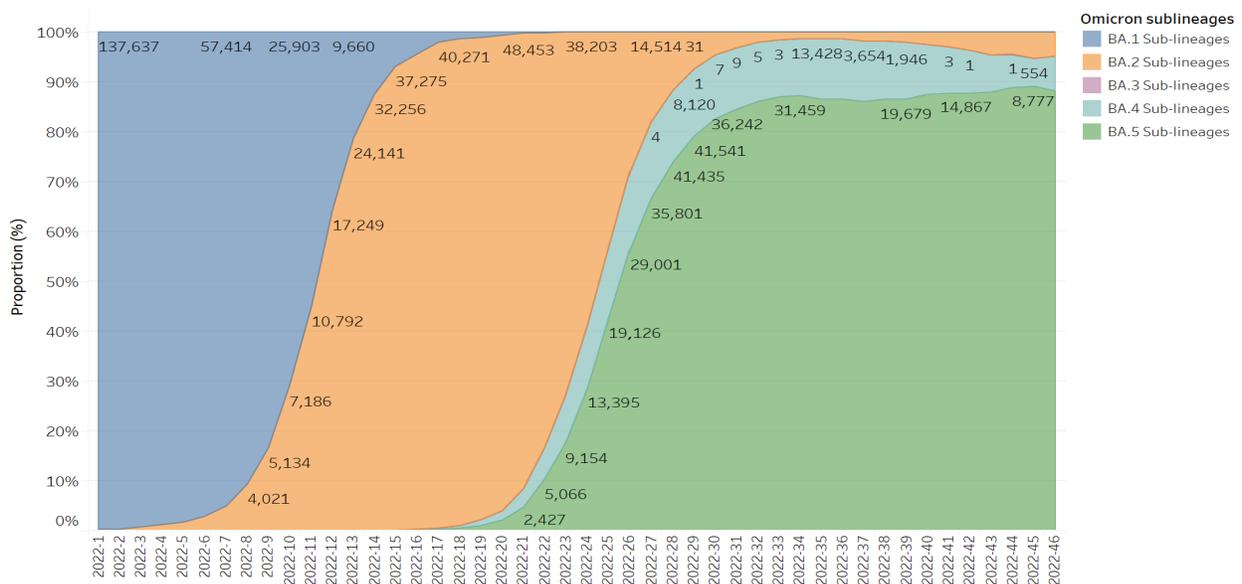
\* Based on the United Nations (UN) Population Prospects for 2021 and projections from the United States (US) Census Bureau for countries with 100,000 or fewer inhabitants

The Omicron variant of concern (VOC) was introduced in the Americas at the end of 2021 and it rapidly replaced Delta VOC and other lineages throughout the Region. Omicron has been officially reported by 54 countries or territories and has been predominant in all PAHO countries since the beginning of 2022. In the past two months, very few sequences from “previously circulating” VOCs have been detected in the Region (five Delta sequences distributed as follows: three in North America, one in South America, and one in the Caribbean; one Alpha sequence in North America).

Omicron comprises the BA.1 to BA.5 sublineages (or subvariants), which are in turn subdivided into diverse sublineages based on additional mutations that slightly change the genomic profile. These sublineages of BA.1 to BA.5 include those denominated as BC.x to DF.x. The cumulative proportion of Omicron sequences collected in the Americas from November 2021 to date are: 45.4% of BA.1 (and BA.1 sublineages), 25.3% of BA.2 (and sublineages), <0.1% of BA.3 (and sublineages), 4.5% of BA.4 (and BA.4 sublineages), and 24.8% BA.5 (and BA.5 sublineages). Although BA.1 accounts for the majority of cumulative sequences, BA.2 became predominant in all subregions between weeks 12 and 15 of 2022, and BA.4 and BA.5 became predominant between weeks 25 and 34 (**Figure 8**). Since then, the proportion of BA.4 and in particular BA.5 has stabilized throughout the Region. Notably, in the past four weeks, the BA.4 and BA.5 (and sublineages) combined represent 95.1%, 96.5%, 97.3%, and 94.2% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively.

It is important to note that the number of SARS-CoV-2 sequences deposited in GISAID by PAHO Member States has been decreasing significantly for the past 17 weeks. This decrease, which is also observed in other regions, increases the risk of bias in the estimates and reduces our collective ability for timely identification of new emerging lineages. In this context, **PAHO strongly encourages all countries in the Region to continue collecting representative samples for sequencing and to maintain appropriate COVID-19 genomic surveillance.**

**Figure 8.** Proportions of VOC Omicron sublineages identified by the countries in the Region of the Americas (January – November 2022)

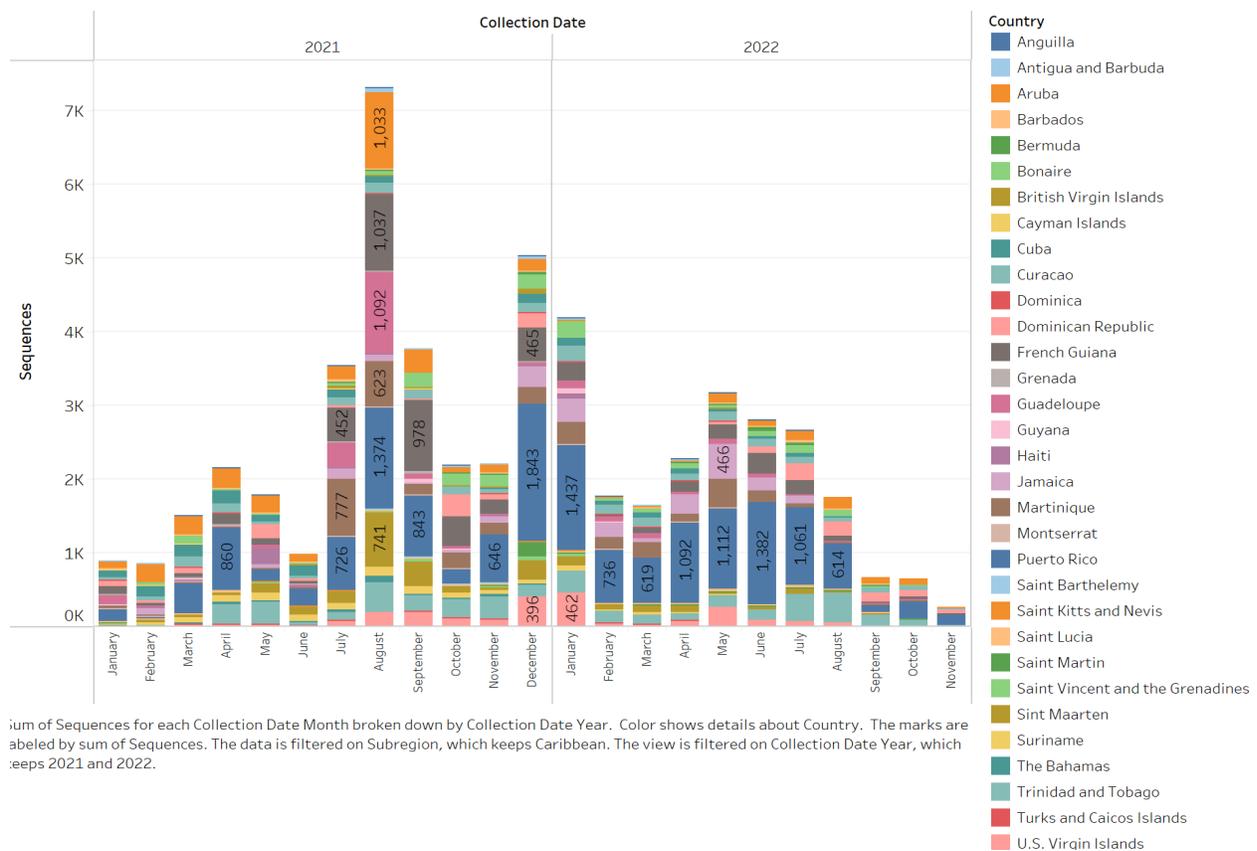


Source: GISAID

## Spotlight: Sequencing and genomic surveillance in the Caribbean subregion

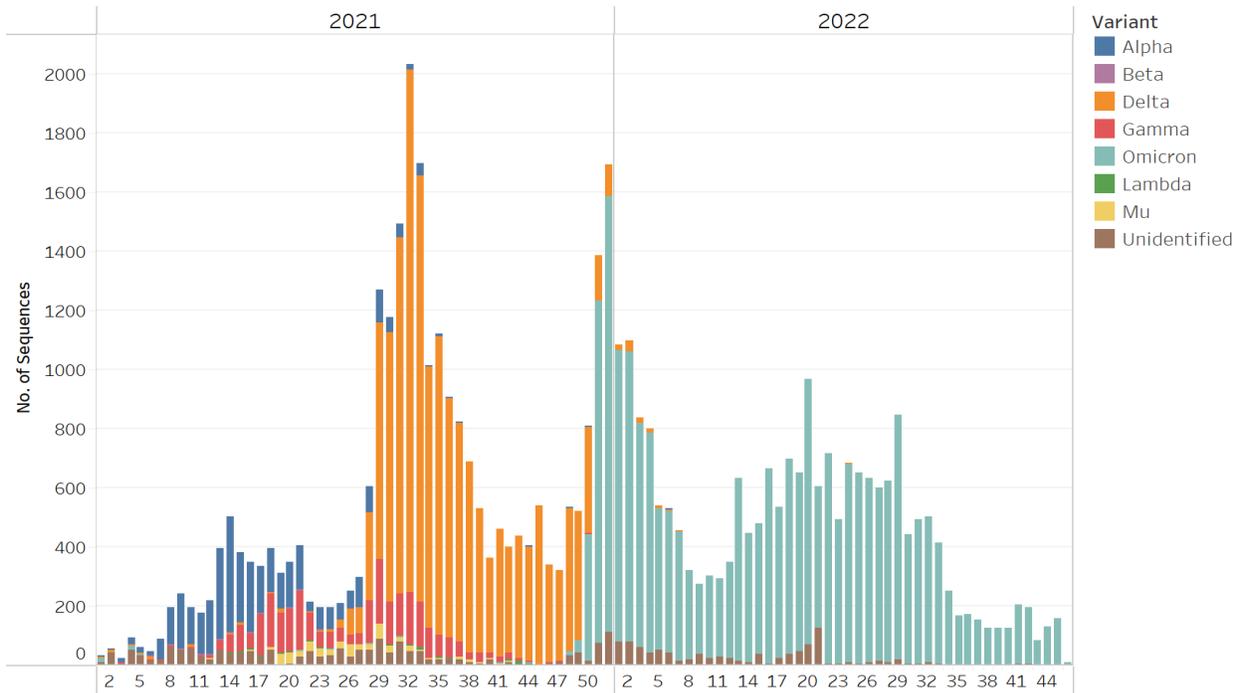
During the last 23 months (January 2021 to 26 November 2022), 53,945 whole genome sequences from the Caribbean countries and territories have been generated as part of the genomic surveillance systems (**Figure 9**). As in other subregions, Omicron is vastly predominant with a single “previously circulating” VOC/VOI detection in the past four months (**Figure 10**). Since Omicron’s first detection, BA.1 and BA.1 sublineages represent the majority (37.6%) of cumulative sequences, while BA.2 and BA.2 sublineages represent 34.4% of the cumulative sequences, and BA.3, BA.4, and BA.5 (with their respective sublineages) represent <0.1%, 6.4%, and 21.5% of cumulative sequences, respectively (**Figure 11**). However, BA.1 was progressively replaced by BA.2 in weeks 10 to 15, and the proportion of BA.4 and BA.5 have been increasing since week 19 (**Figure 12**). When focusing on the past eight weeks, BA.5 is the predominant sublineage (86.0%) while BA.4 accounts for 11.8% of the sequences. In the same period, BA.2 represented 2.2% of the sequences each and BA.1 and BA.3 were not identified in any of the sequences. It is important to note that the majority of sequences for the eight-week period was contributed by Puerto Rico (39.2%).

**Figure 9.** Number of sequences generated monthly by countries in the Caribbean subregion (January 2021- November 2022)



Source: GISAID

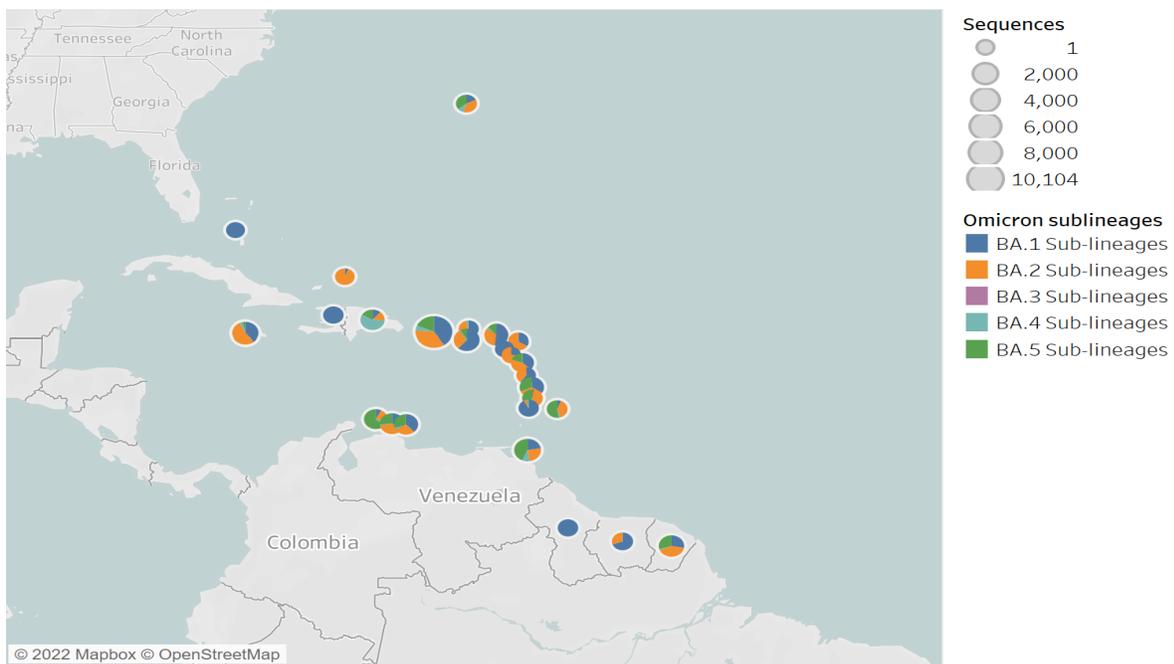
**Figure 10.** Variants detected and reported by the countries in the Caribbean (January 2021- November 2022)



Source: GISAID

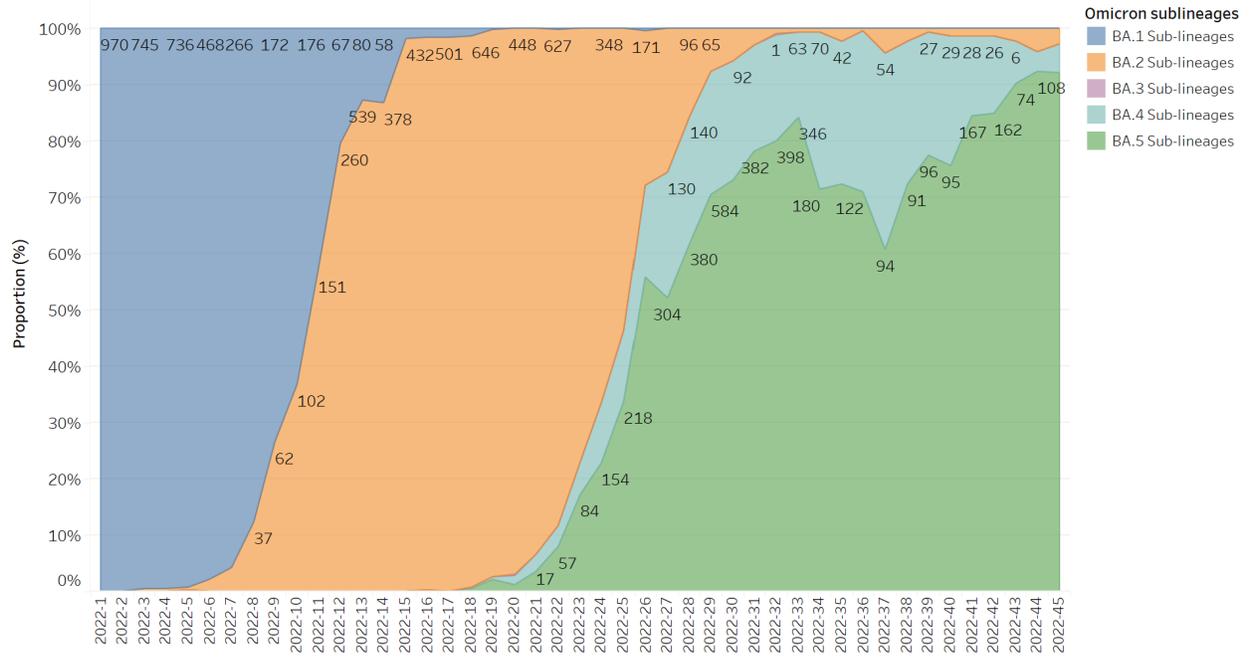
Country-specific data is available at: [https://ais.paho.org/phi/viz/SARS\\_CoV2\\_variants\\_regional.asp](https://ais.paho.org/phi/viz/SARS_CoV2_variants_regional.asp)

**Figure 11.** Distribution of Omicron sublineages identified by the countries in the Caribbean subregion (November 2021-November 2022)



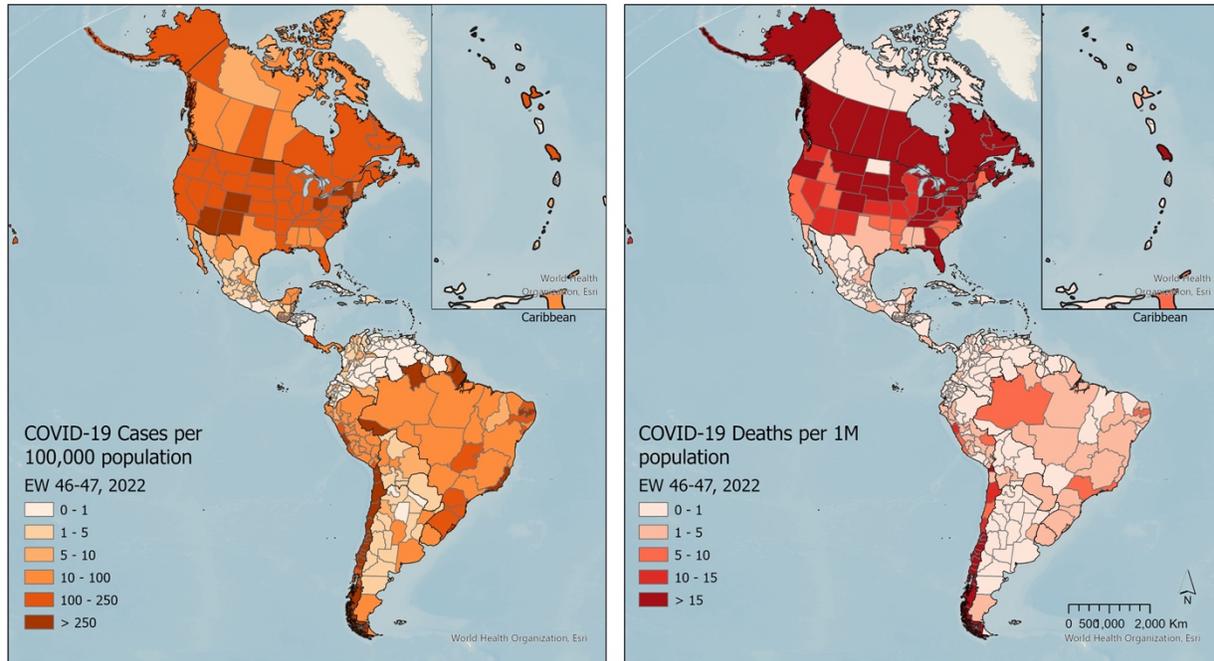
Source: GISAID

**Figure 12.** Distribution of VOC Omicron sublineages identified by the countries in the Caribbean subregion (January- November 2022)



Source: GISAID

**Annex 1.** COVID-19 incidence rate per 100,000 population and COVID-19 mortality rate from per 1 million population. Region of the Americas. Between EW 46 and 47, 2022.



The maps (**Annex 1**) represent the COVID-19 incidence rates per 100,000 population and the mortality rates from COVID-19 per 1 million population in the Region of the Americas reported in EW 46 and 47, 2022.

The highest case incidence was observed in the USA, Chile, French Guiana, and Brazil, while the highest mortality was seen in the USA, Canada, Chile, and Martinique.

In North America, parts of the US (Arizona, Colorado, New Mexico, North Dakota, Ohio, and New York) presented the highest incidence rates. While high mortality rates were observed in almost half of the states in the US, and in most provinces of Canada.

In Central America, the highest incidence rates were observed in Costa Rica, and mortality rates continue to be low in the sub-region. Meanwhile, in South America, in most regions of Chile, and the states of Acre, Roraima, Amapá, Paraíba, Espírito Santo and Rio de Janeiro in Brazil reported high incidence rates. At the same time, most regions of Chile also continued to show the highest mortality rates in the sub-region.

In the Caribbean territories, Cayenne in French Guiana reported the highest incidence rates, and Martinique reported the highest mortality rates in the sub-region.

Data are retro-adjusted every week and the numbers and percent changes of COVID-19 cumulative cases and deaths may not match with the previous COVID-19 weekly situational reports.