

Weekly COVID-19 Epidemiological Update - Region of the Americas

Issue 39, published November 1, 2022

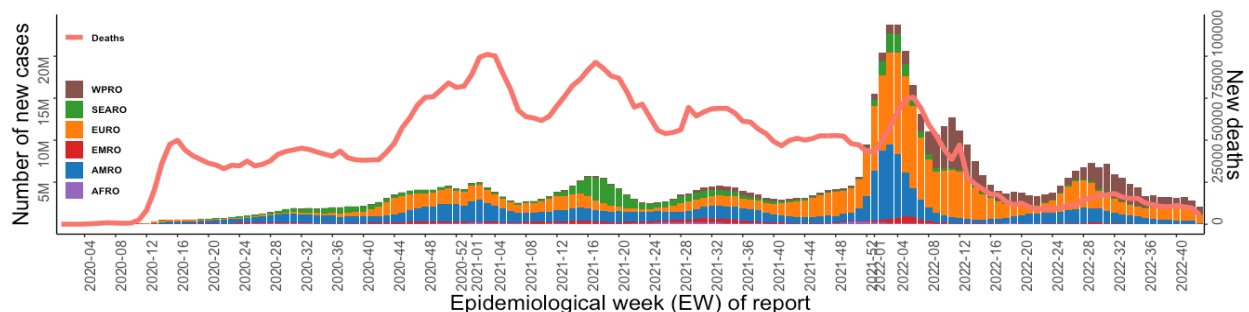
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- Executive summary including global overview
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- Immunization
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Executive Summary

- **Since the onset of the pandemic** in 2020 and up to November 01, 2022, a cumulative total of 627.6 million COVID-19 cases including about 6.6 million deaths were reported from all six WHO regions. During epidemiological week (EW) 43, cases decreased in four regions while they increased in WPRO (4.8%) and AMRO (4.8%). COVID-19 deaths increased in four regions (range: 17.8 – 154.5%) while they decreased in EMRO (-14.7%) and EURO (-28.9%).
- **Globally**, approximately 2,425,190 new COVID-19 cases were reported in EW 43 (October 23, 2022-October 29, 2022) - a -15.6% decrease compared to EW 42 (October 16, 2022-October 22, 2022) (**Figure 1**). For the same period, 9,463 new COVID-19 deaths were reported globally – a -3.2% relative decrease compared the previous week.
- **In the region of the Americas**, 388,097 cases and 4,340 deaths were reported in EW 43 - a 4.8% increase in cases and 23.1% increase in deaths compared to the previous week.
- At the subregional level, COVID-19 cases increased in all subregions (range: 1.3 - 21.4%) except for the Caribbean and Atlantic Ocean Islands subregion (-12.5%). Similarly, deaths increased in North America (21.6) and South America (38.9%) while they decreased in Central America (-39.6%) and Caribbean and Atlantic Ocean Islands subregion (-18.2%).
- The overall weekly case notification rate for the region of the Americas was 38 cases per 100,000 population during EW 43 (36.3 the previous week). Between EW 43 and 42, the 14-day COVID-19 death rate was 7.7 deaths per 1 million population (6.9 the previous two weeks).
- Among 29 countries/territories in the region with available data, **COVID-19 hospitalizations** increased in 12 countries and territories (range: 0.7% - 120%) during EW 43 compared to the previous week. Among 22 countries and territories with available data, COVID-19 **ICU admissions** increased in 6 countries and territories (range: 3.2% - 100%).

Figure 1: COVID-19 cases and deaths by epidemiological week (EW) of report and WHO region. EW 4, 2020 - EW 43, 2022.

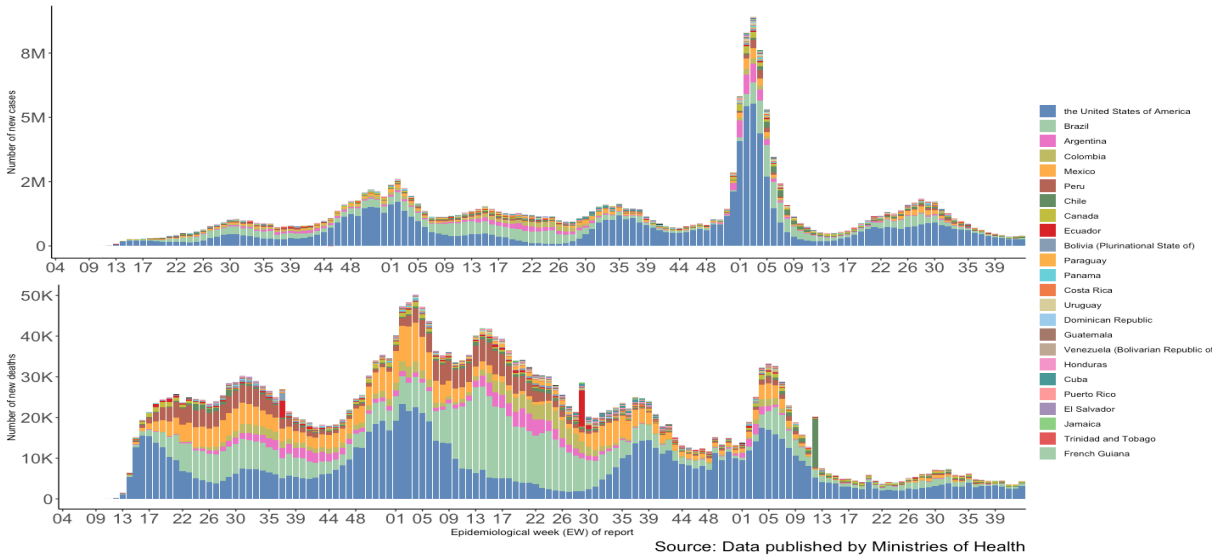


Source: Data from WHO COVID-19 Dashboard

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 - 43, 2022.



During EW 43, 388,097 new **COVID-19 cases** were reported in the region of the Americas - a relative increase of 4.8% compared to previous week (**Figure 2**). The highest number of COVID-19 cases in the last week was reported from North American subregion (283,220 cases, 1% increase) compared to the previous week. (**Table 1**). During EW 43, the highest proportion of weekly COVID-19 cases were reported by the United States of America (259,066 new cases, 1.3% increase), Chile (41,905 new cases, 21.5% increase), Brazil (41,585 new cases, 21.7% increase).

Table 1: Weekly change (%) in cases and deaths between EW 42 and EW 43 by subregion. Region of the Americas

Subregion	Total Cases	Total Deaths	Cases EW 42	Deaths EW 42	Cases EW 43	Deaths EW 43	% Change Cases	% Change Deaths
Caribbean and Atlantic Ocean Islands	4,234,015	35,266	8,407	33	7,353	27	-12.5%	-18.2%
Central America	4,009,455	53,593	6,273	53	7,615	32	21.4%	-39.6%
North America	107,654,280	1,437,211	279,627	2,883	283,220	3,506	1.3%	21.6%
South America	64,141,596	1,329,700	75,962	558	89,909	775	18.4%	38.9%

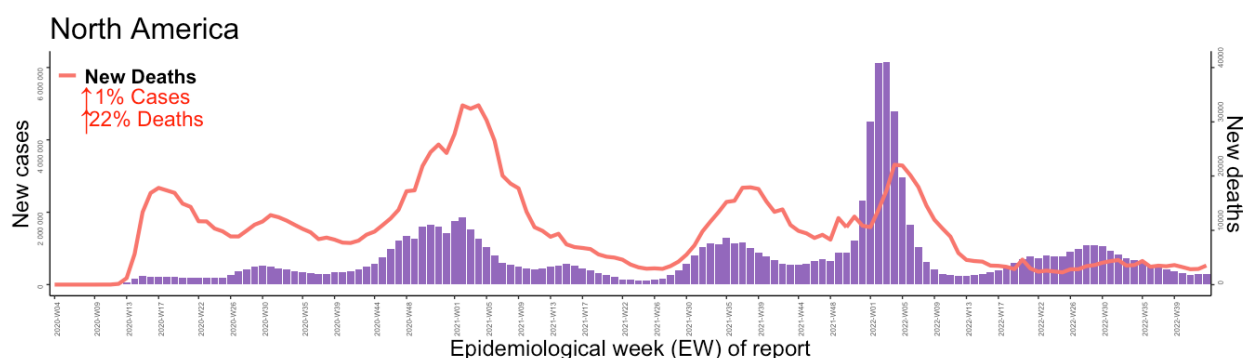
For the same period, 4,340 **COVID-19 deaths** were reported in the region of the Americas - a relative increase of 23.1% compared to previous week (**Figure 2**). The highest number of COVID-19 deaths in the last week was reported from North American subregion (3,506 deaths, 21% increase) (**Table 1**). At the national level, the highest proportion of weekly COVID-19 deaths were reported by the United States of America (3,187 new deaths, 24.3% increase), Brazil (553 new deaths, 44.4% increase), and Canada (305 new deaths, -1% decrease).

A summary of the COVID-19 trends for EW 43 by subregion is presented below.

North America

The overall trends for **COVID-19 cases** have plateaued in North America for the second consecutive week, with a total of 283,220 new cases (1.3% increase) being reported compared to the previous week. During EW 43, all three countries reported no substantial changes – the largest proportion of reported cases were reported by the United States of America (259,066 cases, 1.3% increase), followed by Canada (21,811 cases, 0.6% increase), and Mexico (2343 cases, 0.6% increase).

Figure 3: COVID-19 cases and deaths by epidemiological week (EW). North America. Region of the Americas. EW 3, 2020 - EW 43, 2022.



For the same period, **weekly COVID-19 deaths** increased by 21.6% (3,506 new deaths) in North America during EW 43 relative to the previous week. Two countries in the subregion reported an increase in weekly deaths – the United States of America (3,187 new deaths, 24.3% increase) and Mexico (14 new deaths, 16.7% increase), while Canada reported no substantial changes in weekly deaths compared to the previous week (305 new deaths, -1% decrease).

During 43, among the two countries in North America with available data for **COVID-19 weekly hospitalizations and ICU admissions**, the United States of America reported no substantial changes in hospitalizations (n=26,829, 0% change) as well as ICU admissions (n=3,191, -0.9% decrease). Similarly in Canada, weekly hospitalizations remained stable (5,724 hospitalizations, 1% increase) while weekly ICU admissions slightly increased during EW 43 compared to the previous week (286 ICU admissions, 3.2% increase).

The Omicron **variant of concern** (VOC) sub-lineages of BA.4 and 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 49.6%, while the estimated proportions of BA.5 sub-lineages, BQ.1 and BQ.1.1, have been increasing over the past 4-5 weeks – accounting for 27.1% of sequences for the week ending on 29 October 2022¹. The BA.5 and BA.4 sub-lineages made up about 89.1% and 7.2% for the week of 9 October 2022 in Canada² and 91.5% and 7.6% as of EW 39 in Mexico, respectively.

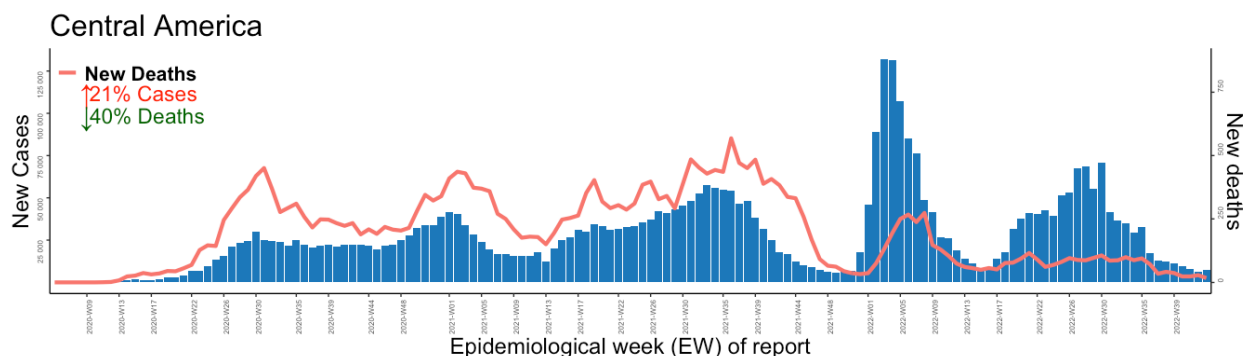
1 The United States Centers for Disease Control and Prevention (CDC). Variant Proportions. Accessed 1 November 2022. Available at: <https://bit.ly/3Obz8cT>

2 Public Health Agency of Canada (PHAC). COVID-19 Epidemiological Update. Accessed 1 November 2022. Available at: <https://bit.ly/3bbFRFr>

Central America

In Central America, the overall **COVID-19 incidence** for the sub-region has increased for the first time after eight-weeks of a decreasing trend with 7,615 new cases being reported during EW 43 – a 21.4% increase 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 43, 2022.



During EW 43, **weekly cases** increased in three countries in the subregion, with the largest proportion of reported cases being reported from Guatemala (4,155 new cases, 38.6% increase), followed by Costa Rica (2617 new cases, 3.5% increase), and Panama (805 new cases, 33.5% increase). While Nicaragua reported a decline in weekly cases (21 new cases, -16% decrease), the remaining three countries and territories did not report any changes – Belize (17 new cases, 0%) as compared to the previous week – or had not reported any new cases – Honduras and El Salvador during EW 43.

During EW 43, **weekly deaths** decreased by approximately -39.6% relative to the previous week (**Figure 4**). Similar to the weekly cases, three out of the seven countries and territories reported an increase – Guatemala (20 new deaths, 42.9% increase), Costa Rica (9 new deaths, 12.5% increase), and Panama (3 new deaths, 100% increase) compared to the previous week. The remaining four countries and territories had not reported any deaths during EW 43.

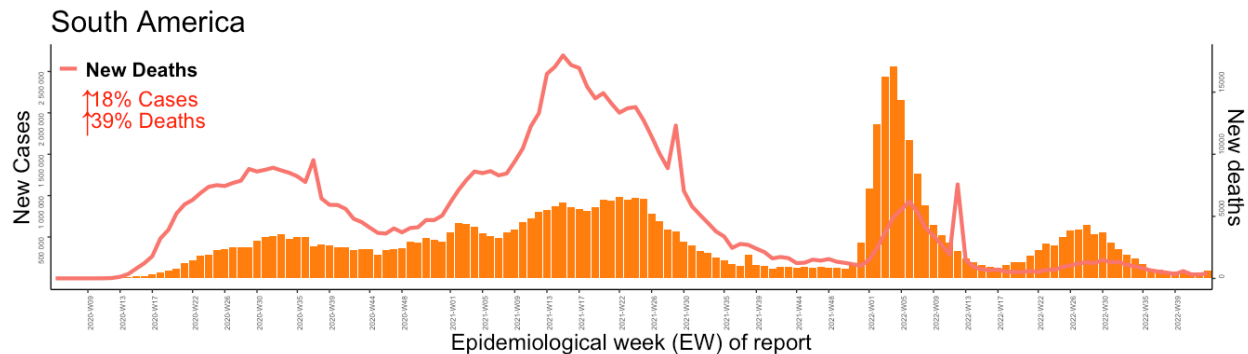
Among four countries/territories with available data for **weekly COVID-19 hospitalizations** in the Central American subregion, two countries and territories reported a decline in their weekly COVID-19 hospitalizations – Panama (62 hospitalizations, -13.9% decrease) and Honduras (15 hospitalizations, -11.8% decrease), while the two remaining countries did not report any substantial changes – Belize (2 hospitalizations, 100% increase) and Costa Rica (108 hospitalizations, 0% change). With regards to ICU admissions, all three countries and territories with available data for **weekly COVID-19 ICU admissions** did not report any substantial changes during EW 43 compared to the previous week.

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 by 18.4% – primarily due to an increase observed in Brazil and Chile – with a total of 89,909 new COVID-19 cases being reported in the subregion during EW 43 compared to the previous week (**Figure 5**).

Figure 5: COVID-19 cases and deaths by epidemiological week (EW). South America. Region of the Americas. EW 3, 2020 - EW 43, 2022.



Out of the 10 countries and territories the sub-region, three experienced an increase in weekly cases during EW 43 compared to the previous week, with the largest proportion of reported cases being reported by Chile (41,905 new cases, 21.5% increase), followed by Brazil (41,585 new cases, 21.7% increase), and Peru (2,317 new cases, 22.1% increase). The remaining seven countries and territories reported a decline in weekly cases (range: -36.2 - -10.2% decrease) relative to the previous week.

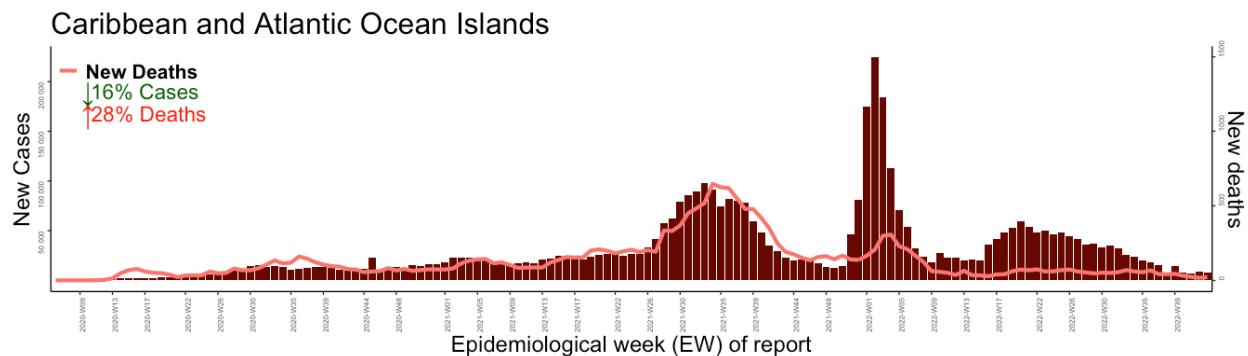
During EW 43, a total of 775 **COVID-19 deaths** were reported in South America – a 38.9% increase compared to the previous week. Six countries and territories in the subregion reported an increase in weekly deaths (range: 33.3 – 200% increase) compared to the previous week. The largest proportion of reported deaths in the subregion was reported by Brazil (553 new deaths, 44.4% increase), followed by Chile (117 new deaths, -4.9% decrease), and Peru (65 new deaths, 195.5% increase).

During EW 43, among four countries and territories in the subregion with data available for **COVID-19 weekly hospitalizations**, three reported an increase in weekly hospitalizations (range: 0.7 – 4.2% increase) while Peru reported a slight decrease in weekly hospitalizations (n=494, -3.7% decrease) relative to the previous week. For the same period, among five countries and territories with data available for **COVID-19 ICU admissions**, four reported a decline in their weekly ICU admissions (range: -14.4 - -4.9% decrease) while Chile reported a 13% increase in its weekly COVID-19 ICU admissions (n=104) compared to the previous week.

To date, Omicron lineages 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 43, 2022.



In the Caribbean and Atlantic Ocean Islands sub-region, **COVID-19 weekly cases** decreased by -12.5% during EW 43 compared to the previous week (**Figure 6**). At the national level, cases increased in seven out of 36 countries and territories in the subregion (range: 7.5% - 150%) while they declined in 19 countries and territories (range: -100% - -5%).

For the same period, **COVID-19 weekly deaths** increased by 18.2% (27 deaths) in the Caribbean and Atlantic Ocean Islands subregion. During EW 43, six countries and territories in the subregion observed a relative increase their weekly deaths (range: 33.3 – 300% increase) and three reported a decline (range: -100 - -50% decrease), while the remaining countries and territories did not report any changes in weekly deaths during EW 43 compared to the previous week.

During EW 43, among 19 countries and territories with available data for **weekly COVID-19 hospitalizations**, seven countries and territories out of reported an increase in their weekly COVID-19 hospitalizations (range: 2.4 – 120% increase), while the remaining 12 countries and territories either reported a decline (n=7, range: -100 - -32% decrease) or remained the same (n=5). Similarly, among 12 countries and territories with data available for **COVID-19 ICU admissions**, three reported an increase in their weekly COVID-19 ICU admissions (range: 1 – 7 ICU admissions, 75 – 100% increase) while the remaining countries/territories either reported a decline (n=5, range: - 100 - -5.3% decrease) or remained the same (n=4) compared to the previous week.

Notable increases in weekly cases in the subregion during EW 43 were Saint Vincent and the Grenadines (5 new cases, 150% increase), Curaçao (33 new cases, 17.9% increase), and the United States Virgin Island (50 new cases, 16.3% increase) compared 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: Complete Primary Series and At Least One Dose versus 1st Additional/Booster Dose in Healthcare Workers, classified by Income Group*, in the Region of the Americas**. As of EW 43, 2022.

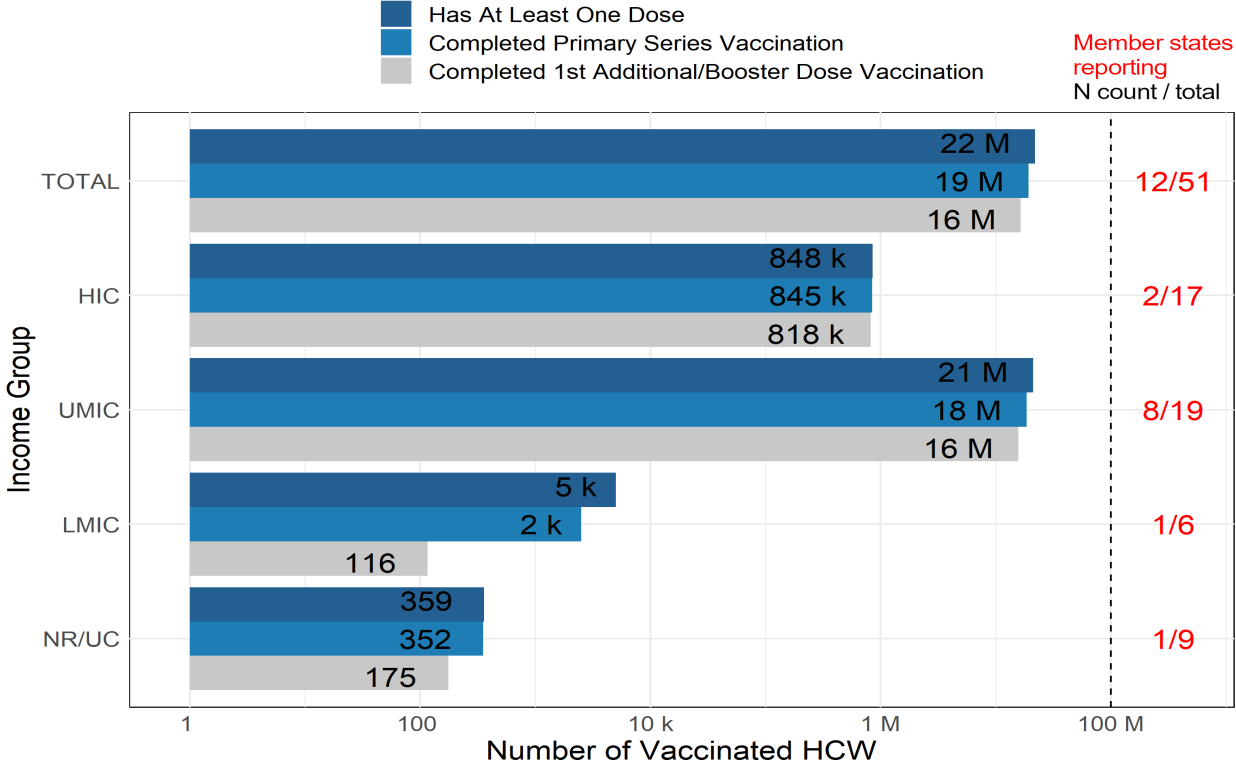


Figure 7 compares the amount of COVID-19 vaccine doses among healthcare workers (HCW), by income group of the country of residence considering countries that are reporting HCW vaccination data. The largest dropout rate (the percentual difference between the number of individuals with a Complete Primary Series and those with At Least One Dose) can be seen in the Lower Middle Income (LMIC) group, followed by the Upper Middle Income (UMIC) group.

However, it is important to note that only one country has reported data within the LMIC group, while most of the reporting countries for this analysis are in the UMIC group, with only two in the High Income (HIC) group. In fact, declining data completeness and timeliness on vaccination rates are among the strongest limitations to this analysis. To facilitate interpretation, besides each income group we included the number of countries and territories that reported data since August 2022. Note that all numbers are marked in red to underscore that less than half of countries for each group reported data.

* Based on the World Bank 2021-2022 Income Level Classification. Please note that NR/UC refers to those countries that are Not Registered or Unclassified by the aforementioned World Bank classification.

** Data for 12 countries and territories that have reported since August 2022.

Genomic surveillance

Through PAHO's Genomic Surveillance Regional Network and the work from the Member States, 470,916 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 1st November 2022.

After the introduction of the Omicron VOC in the Americas at the end of 2021, it has rapidly increased in prevalence and has been officially reported by 54 countries or territories. Omicron is now predominant in all PAHO countries. In the past two months, only five non-Omicron sequences have been detected (three Delta VOC and one Alpha VOC in North America, and one Delta VOC in South America).

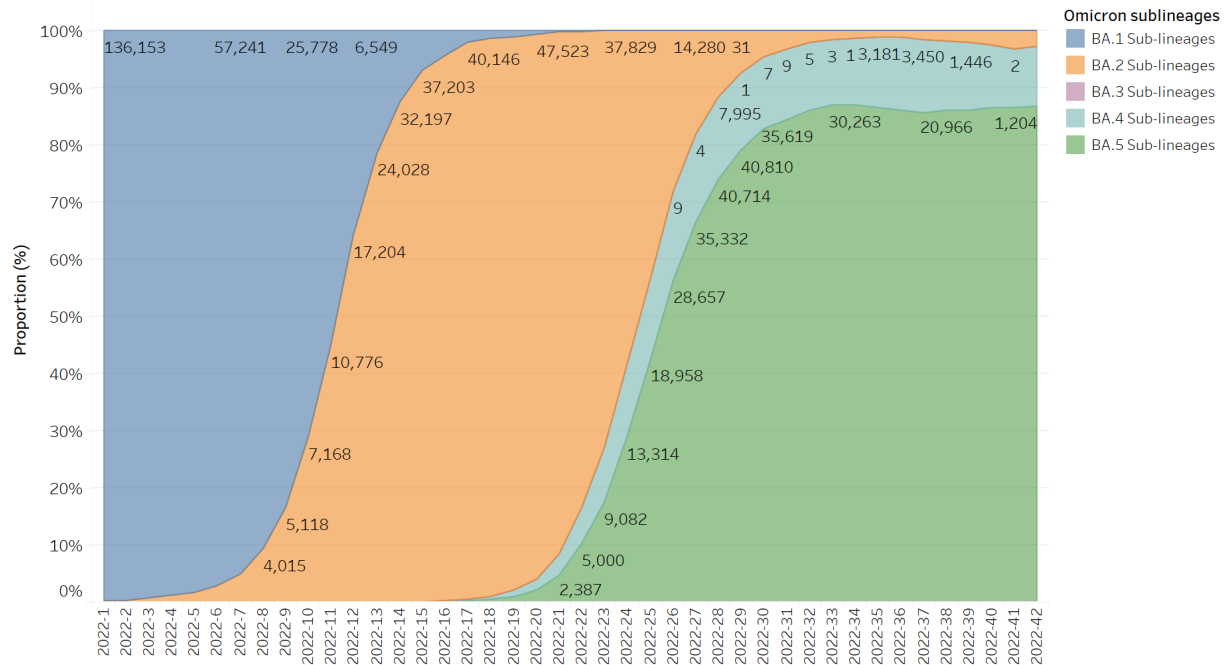
Omicron comprises the BA.1 to BA.5 sublineages (or subvariants), which are also subdivided into diverse sublineages based on additional mutations that slightly change the genomic profile but not enough to define a new variant. These sublineages of BA.1 to BA.5 include those denominated as BC.x to BZ.x and CA.x to CV.x. The cumulative proportion of Omicron sequences collected in the Americas from November 2021 to date are: 47.3% of BA.1 (and BA.1 sublineages), 26.2% of BA.2 (and sublineages), <0.1% of BA.3 (and sublineages), 4.3% of BA.4 (and BA.4 sublineages), and 22.1% 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 97.0%, 97.1%, 97.3 %, and 97.0% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively.

Recent increases in the proportion of BA.2.75 and BQ.1 (a BA.5 sublineage) in North America and of BA.4.6 in all subregions have been noted. Moreover, XBB, a new recombinant between BA.2.10.1 and BA.2.75 sublineages which circulates mainly in India and Singapore has also been detected in the Americas (in Argentina, Canada, Chile, and the United States). All these sublineages are included in the list of Omicron subvariants under monitoring¹. However, as noted by the WHO Technical Advisory Group on Viral Evolution for BQ.1 and XBB², current available evidence suggests that their overall phenotype does not diverge sufficiently from other Omicron sublineages to warrant the designation of new variants of concern. These sublineages remain part of the Omicron variant of concern.

1 WHO. Tracking SARS-CoV-2 variants. Available at: <https://www.who.int/en/activities/tracking-SARS-CoV-2-variants/>

2 WHO. TAG-VE statement on Omicron sublineages BQ.1 and XBB. 27 October 2022. Available at: <https://www.who.int/news/item/27-10-2022-tag-ve-statement-on-omicron-sublineages-bq.1-and-xbb>

Figure 8: Proportions of VOC Omicron sublineages identified by the countries in the Region of the Americas (January-October 2022)



% of Total Sequences for each Epi Year-Week. Color shows details about Omicron sublineages (group). The marks are labeled by sum of Sequences. The data is filtered on Collection Date, Subregion, Variant and Epi Year. The Collection Date filter ranges from 03-Jan-2021 to 22-Oct-2022. The Subregion filter keeps multiple members. The Variant filter keeps Omicron. The Epi Year filter keeps 2022. The view is filtered on Omicron sublineages (group), which has multiple members selected.

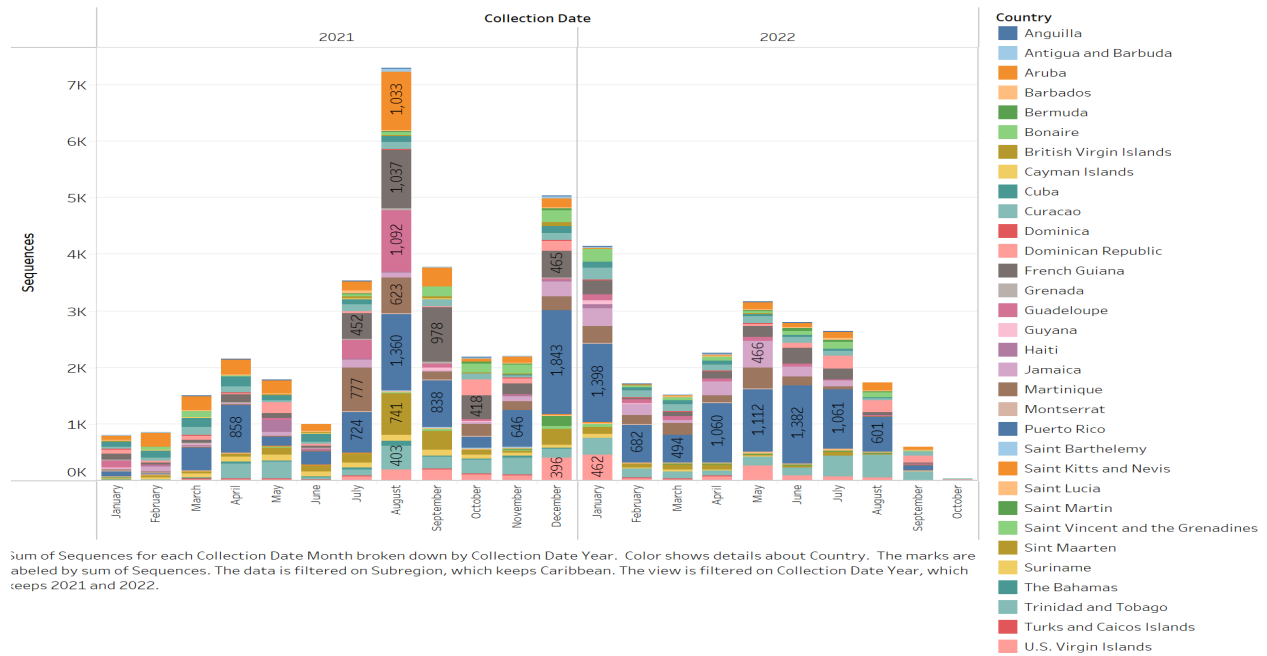
Source: GISAID

Spotlight: Sequencing and genomic surveillance in the Caribbean subregion

During the last 22 months (January 2021 to 29 October 2022), 52,619 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 no other “previously circulating” VOC/VOI detected in the past four months (**Figure 10**). Since Omicron’s first detection, BA.1 and BA.1 sublineages represent the majority (39.1%) of cumulative sequences, while BA.2 and BA.2 sublineages represent 35.6% of the cumulative sequences, and BA.3, BA.4, and BA.5 (with their respective sublineages) represent <0.1%, 6.3%, and 19.1% 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 (68.9%) while BA.4 accounts for 28.6% of the sequences. In the same period, BA.2 represented 2.53% 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 the Trinidad and Tobago (28.2%).

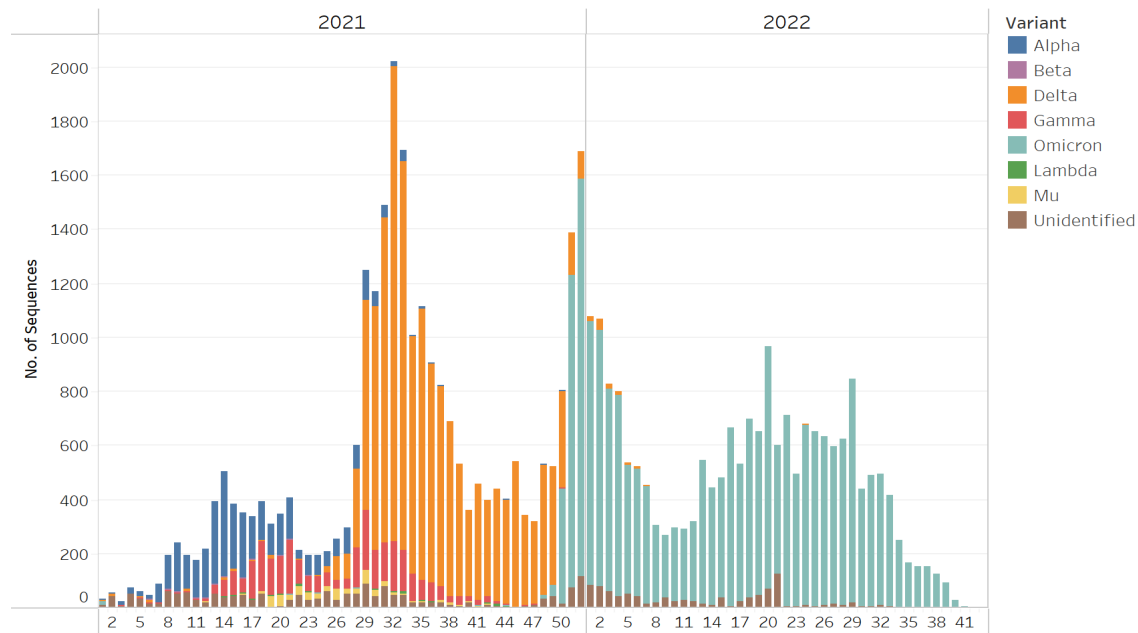
It is important that all countries in the PAHO Region continue the collection of representative samples for sequencing and maintain appropriate COVID-19 genomic surveillance.

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



Source: GISAID

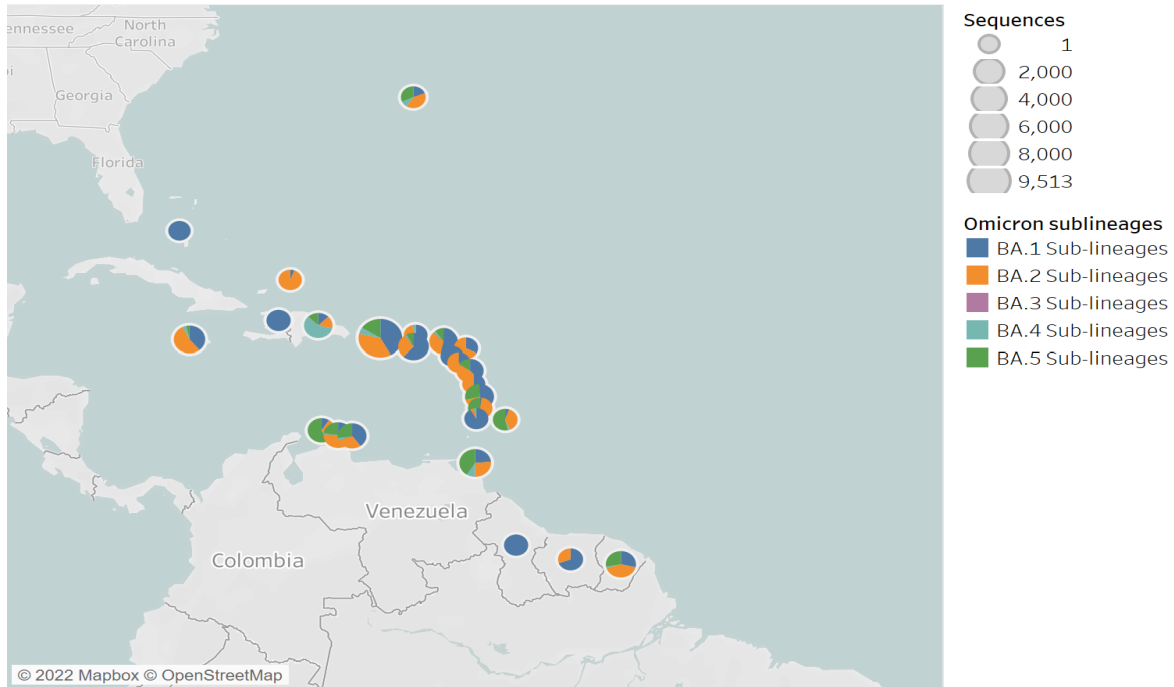
Figure 10. Variants detected and reported by the countries in the Caribbean (January 2021- October 2022)



Source: GISAID

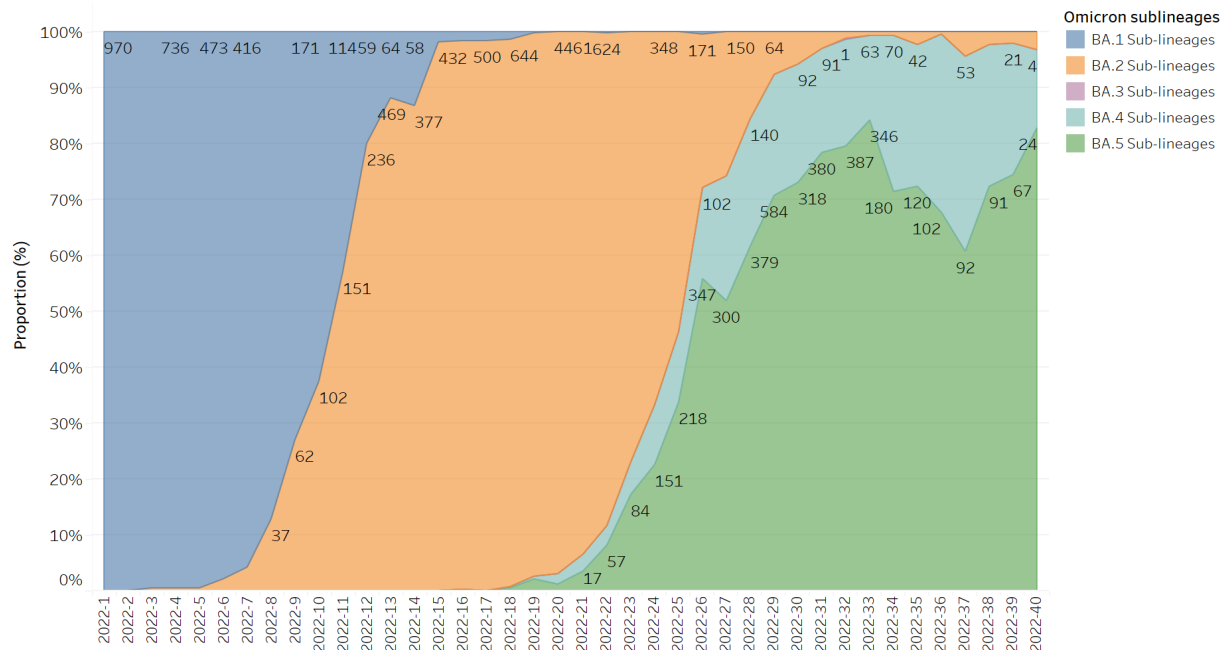
Country-specific data is available at: https://ais.paho.org/phi/viz/SARS_CoV2_variants_regional.asp

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



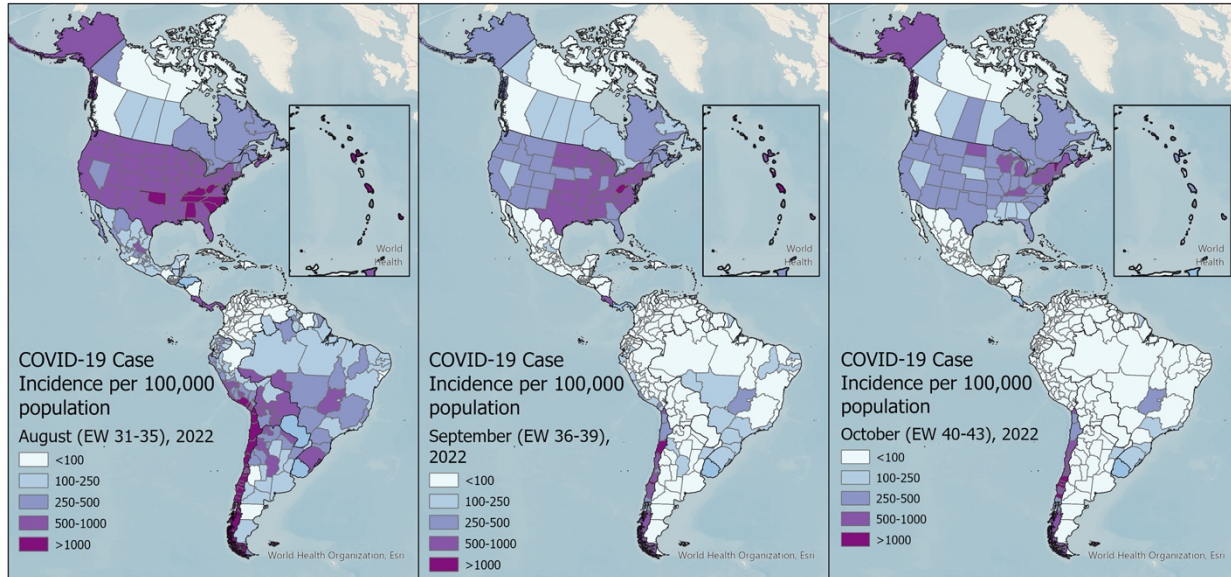
Source: GISAID

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



Source: GISAID

Annex 1. The maps of monthly COVID-19 case incidence rates per 100,000 population. The region of the Americas. From August to October 2022.



This map (**Annex 1**) represents the COVID-19 case incidence per 100,000 population in the region of the Americas, from August to October 2022.

In August, moderately high COVID-19 case incidences are observed in most countries in the region; the highest incidence observed in the US, and Canada in North America, and Costa Rica, and Panama in Central America. The highest incidence was observed in Chile, Brazil, Bolivia, and parts of Argentina and Peru in South America along with Puerto Rico, Martinique, Guadeloupe, and Dominica in the Caribbean islands.

In September, a decline in new cases was observed in most countries/territories. The largest relative decrease was observed in the US, Brazil, Chile, Argentina, Peru, and Bolivia. However, high incidence rates were still reported in some parts of the US and Chile, Costa Rica, Puerto Rico, Guadeloupe, and Martinique.

The declining trend continued in October in every country in the region. While this decrease is continued, USA (northern states), Canada (eastern provinces), and parts of Chile, Puerto Rico, Martinique, and Guadeloupe continue to show moderately high incidence relative to the previous months.