Weekly COVID-19 Epidemiological Update - Region of the Americas

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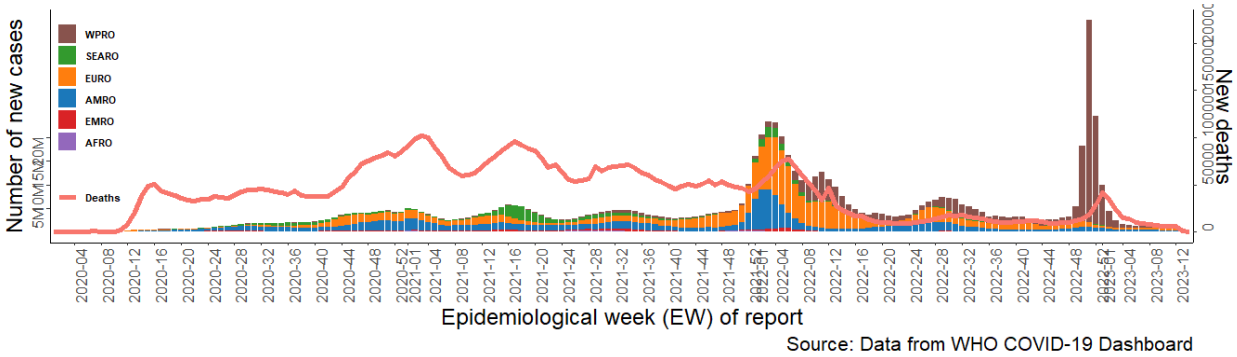
Contents:

Next COVID-19 Epidemiological Updates will be published on a biweekly basis; next issue will be shared on 19 April 2023.

Executive Summary

- **Since the onset of the pandemic** in 2020 and up to 05 April 2023, a cumulative total of approximately 762 million COVID-19 cases including 6.9 million deaths were reported from all six WHO regions. During epidemiological week (EW) 13, cases decreased in four regions while they increased in SEARO and AMRO, and deaths decreased in four regions while they increased in SEARO and AFRO.
- **In the region of the Americas,** 277,830 cases and -1,044 deaths were reported in EW 13 – a 2.4% increase in cases and -136.8% decrease in deaths compared to the previous week. Please note, the negative number in deaths for EW 13 in the region of the Americas is due to a retro-adjustment done by Chile for 2020 cumulative deaths.
- At the subregional level, COVID-19 cases increased in one subregion – North America (12% increase). Deaths increased in one subregion – Central America (5.3% increase).
- The overall weekly case notification rate for the region of the Americas was 27.2 cases per 100,000 population during EW 13 (26.5 the previous week). Between EW 13 and 12, the 14-day COVID-19 death rate was 1.8 deaths per 1 million population (5.2 the previous two weeks).
- Among 18 countries/territories in the region with available data, **COVID-19 hospitalizations** increased in 11 countries and territories (range: 3.4% - 133.3%) during EW 13 compared to the previous week. Among 14 countries and territories with available data, **COVID-19 ICU admissions** increased in 4 countries and territories (range: 18.5% - 100%).

Figure 1: COVID-19 cases and deaths by epidemiological week (EW) of report and WHO region. EW 4 2020 - EW 13 2023.



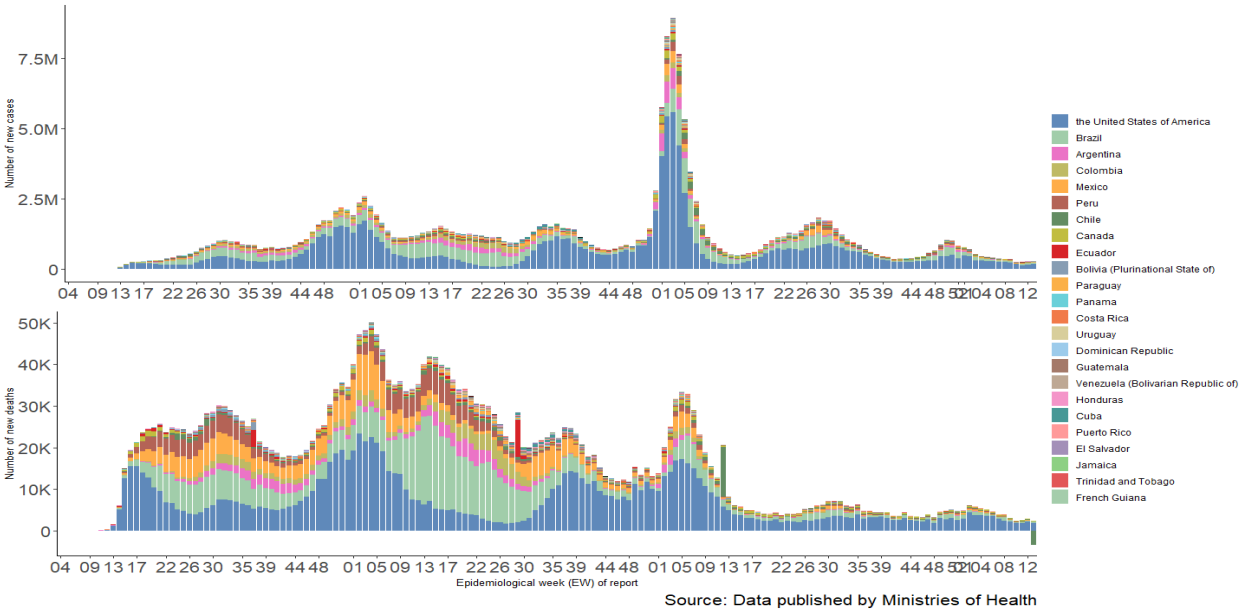
Data are retro-adjusted every week and the numbers and percent changes of COVID-19 cumulative cases and deaths may not match with the previous COVID-19 weekly situational reports.

Pan American Health Organization / World Health Organization. Washington, D.C.: PAHO/WHO; 2023

More information available at: https://paho-covid19-response-who.hub.arcgis.com/ & https://shiny.pahobra.org/wdc/

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 - 13 2023.



During EW 13, 277,830 new **COVID-19 cases** were reported in the region of the Americas - a relative increase of 2.4% compared to the previous week **(Figure 2)**. The highest number of COVID-19 cases in the last week was reported from North America (196,658 cases, 12% increase) compared to the previous week **(Table 1)**. During EW 13, the highest proportion of weekly COVID-19 cases at the national level were reported by the United States of America (176,358 new cases, 15.3% increase), Brazil (53,986 new cases, -8.8% decrease), and Chile (14,253 new cases, -37.1% decrease).

Table 1: Weekly change (%) in cases and deaths between EW 12 and EW 13 by subregion. Region of the Americas

Subregion	Total Cases	Total Deaths	Cases EW 12	Deaths EW 12	Cases EW 13	Deaths EW 13	% Change Cases	% Change Deaths
Caribbean and Atlantic Ocean Islands	4,413,163	36,431	3,127	34	3,121	13	-0.2%	-61.8%
Central America	4,265,624	54,399	6,417	19	6,235	20	-2.8%	5.3%
North America	115,052,690	1,504,460	175,560	2,307	196,658	1,943	12.0%	-15.8%
South America	68,002,878	1,345,969	86,108	477	71,816	-3,020	-16.6%	-733.1%

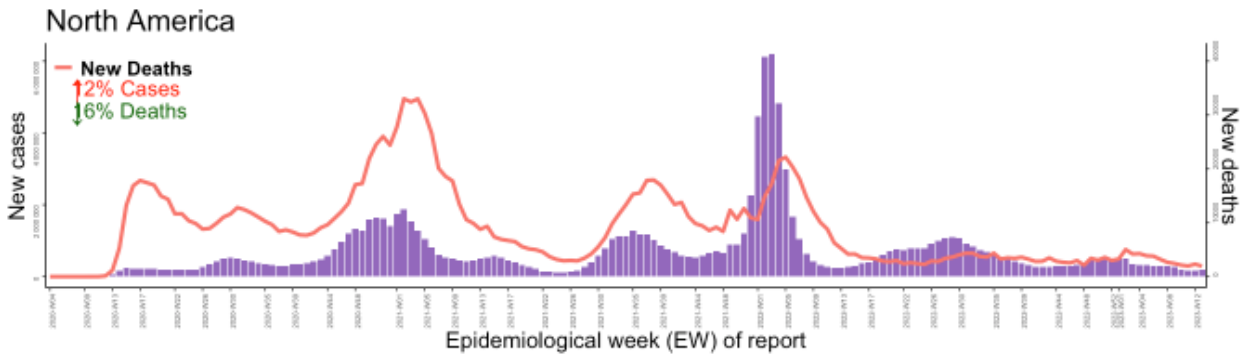
For the same period, -1,044 **COVID-19 deaths** were reported in the region of the Americas - a relative decrease of -136.8% compared to the previous week **(Figure 2)**. Please note, the negative number in cumulative deaths for EW 13 in the region is due to a retro-adjustment done on 27 March 2023 by Chile related to deaths recorded in the 2020, this retro-adjustment produced a high impact in the analysis conducted during EW 12 and EW 13. The highest number of COVID-19 deaths in the last week was reported from North America (1,943 deaths, -15% decrease) **(Table 1)**. At the national level, the highest proportion of weekly COVID-19 deaths were reported by the United States of America (1,746 new deaths, -16.2% decrease), Brazil (322 new deaths, 13.8% increase), and Canada (141 new deaths, 3.7% increase).

A summary of the COVID-19 trends for EW 13 by subregion is presented below.

North America

The overall trends for **COVID-19 cases** have been increasing in North America as of EW 13, primarily due to an increase observed in the United States of America (176,358 cases, 15.3% increase). The remaining two countries in the subregion reported a decline in cases – Mexico (12,442 cases, -12.8% decrease), and Canada (7,858 cases, -5.6% decrease).

Figure 3: COVID-19 cases and deaths by epidemiological week (EW). **North America.** Region of the Americas. EW 3 2020 - EW 13 2023.

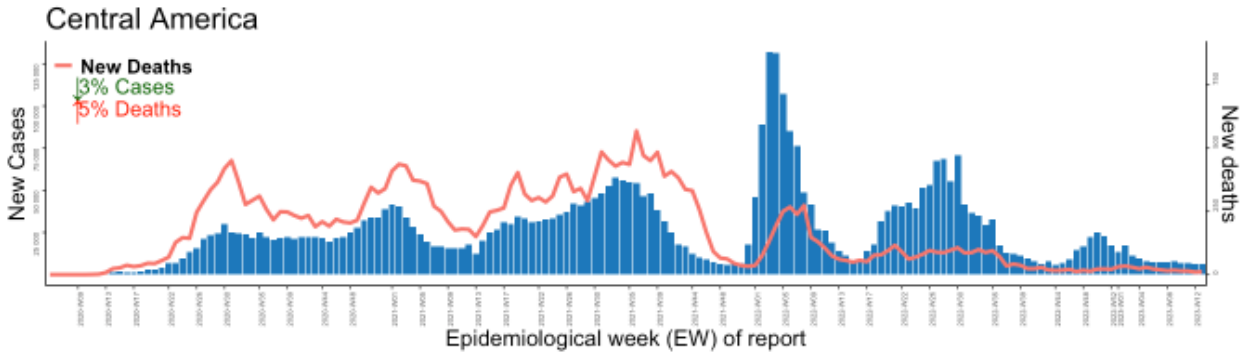


For the same period, **weekly COVID-19 deaths** decreased by -15.8% in North America during EW 13 relative to the previous week. The largest decline in deaths were reported by Mexico (56 new deaths, -35.6% decrease), followed by the United States of America (1,746 new deaths, -16.2% decrease), while Canada reported a 3.7% increase in weekly deaths (n=141 new deaths).

During EW 13, among the two countries in North America with available data for **COVID-19 weekly hospitalizations and ICU admissions**, both countries reported an increase in their weekly COVID-19 ICU admissions (range: 18.5 - 26.2%). The United States of America reported a decrease in its weekly COVID-19 hospitalizations (n=19,450, -5%) and an increase in its weekly ICU admissions (n=2,523, 18.5%). In Canada, weekly COVID-19 hospitalizations and weekly ICU admissions increased during EW 13 compared to the previous (3,284 hospitalizations, 25.8% & 183 ICU admissions, 26.2%).

Central America

Figure 4: COVID-19 cases and deaths by epidemiological week (EW). **Central America. Region of the Americas.** EW 6 2020 - EW 13 2023.



The countries with the largest decline in cases this week included Panama (0new cases, -100% decrease), Honduras (24 new cases, -76.7% decrease), and Costa Rica (3,654 new cases, 1.9% increase).

In Central America, the overall **COVID-19 incidence** for the sub-region has decreased with 6,235 new cases being reported during EW 13 – a -2.8% decrease compared to the previous week **(Figure 4)**. Please note that data for Panama was not publicly available for EW 13, resulting in a data artifact in percent changes in the subregion.

The countries with the largest increase in cases this week included Nicaragua (7 new cases, 133.3% increase), Guatemala (2,550 new cases, 35.5% increase), and Costa Rica (3,654 new cases, 1.9% increase).

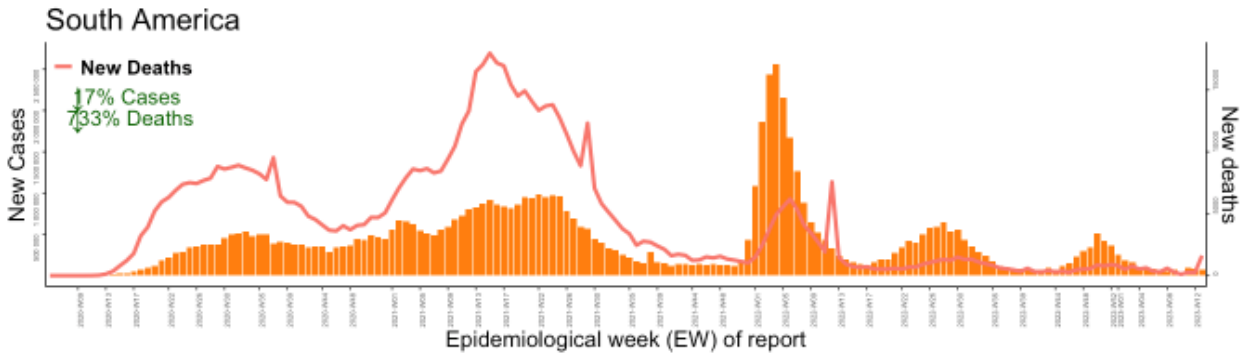
During EW 13, **weekly deaths** increased by approximately 5.3% relative to the previous week **(Figure 4)**. Most countries and territories in the subregion reported no changes in deaths, except Guatemala (3 new deaths, 200% increase), and Costa Rica (17 new deaths, -5.6% decrease).

Among the four countries/territories with available data for **weekly COVID-19 hospitalizations** in the Central American subregion, Panama (n=49, 28.9% increase) and Honduras (n=5, 66.7% increase) reported an increase in weekly COVID-19 hospitalizations. Among three countries and territories with available data for **weekly COVID-19 ICU admissions**, Panama reported a decrease in their weekly COVID-19 ICU admissions (n=1, -50% decrease) while the others reported no changes in weekly COVID-19 ICU admissions.

South America

In South America, the overall **COVID-19 incidence** for the subregion has decreased by -16.6%, with a total of 71,816 new COVID-19 cases being reported during EW 13 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 13 2023.



Out of the 10 countries and territories in the sub-region, three experienced an increase in cases during EW 13 (range: 0.4 – 114.9% increase). Some of the largest declines in cases in the subregion were reported by Chile (14,253 new cases, -37.1% decrease), and Bolivia (Plurinational State of) (359 new cases, -21.4% decrease).

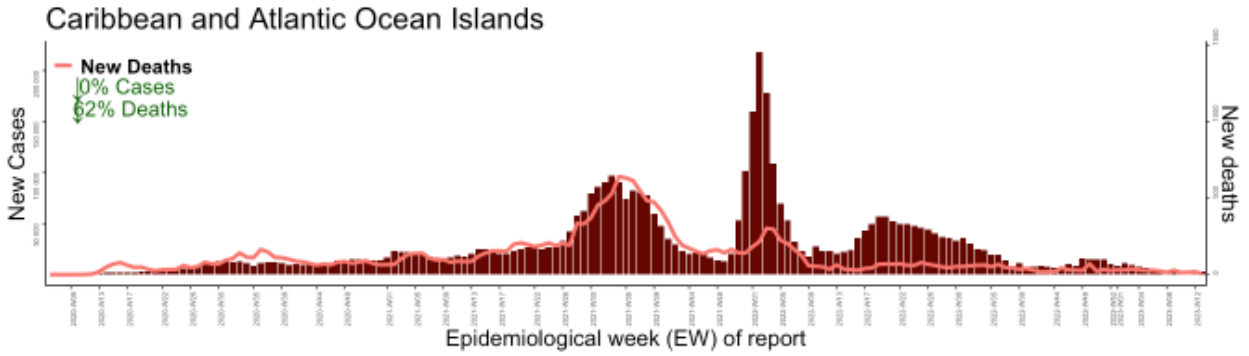
During EW 13, a total of -3,020 **COVID-19 deaths** were reported in South America – a -733.1% decrease compared to the previous week. Please note, the negative number in cumulative deaths for EW 13 in the region is due to a retro-adjustment done on 27 March 2023 by Chile related to deaths recorded in 2020, this retro-adjustment produced a high impact in the analysis conducted during EW 12 and EW 13. The largest increase in deaths were reported by Brazil (322 new deaths, 13.8% increase), followed by Peru (75 new deaths, 4.2% increase).

Among the four countries and territories in the subregion with data available for **COVID-19 weekly hospitalizations**, two – Peru and Chile – reported an increase in their weekly COVID-19 hospitalizations (15.7% and 3.4% increase respectively). For the same period, none of the five countries and territories with data available for **COVID-19 ICU admissions** reported an increase in their weekly COVID-19 ICU admissions.

Caribbean and Atlantic Ocean Islands

In the Caribbean and Atlantic Ocean Islands sub-region, **COVID-19 weekly cases** decreased by -0.2% (3,121 new cases) compared to the previous week **(Figure 6)**. At the national level, cases increased in nine out of the 34 countries and territories in the subregion (range: 5.9% - 400%).

Figure 6: COVID-19 cases and deaths by epidemiological week (EW). **Caribbean and Atlantic Ocean Islands.** Region of the Americas. EW 6 2020 - EW 13 2023.



For the same period, **COVID-19 weekly deaths** decreased by -61.8% (13 deaths) in the Caribbean and Atlantic Ocean Islands subregion. Barbados observed a relative increase in its weekly deaths in EW 13 compared to the previous week (3 new deaths, 100% increase). Weekly deaths either remained the same or declined in the remaining countries and territories of the subregion (range: -100 – -42.9%).

During EW 13, among the twelve countries and territories with available data for **weekly COVID-19 hospitalizations**, seven countries and territories reported an increase in their weekly COVID-19 hospitalizations (range: 7.4 - 133.3%). Among ten countries and territories with data available for **COVID-19 ICU admissions**, two reported an increase (both with 100%) in their weekly COVID-19 ICU admissions.

Immunization

Figure 7: Number of countries and territories that provided up-to-date COVID-19 vaccination information to PAHO in the Region of the Americas in March of 2021, 2022 and 2023

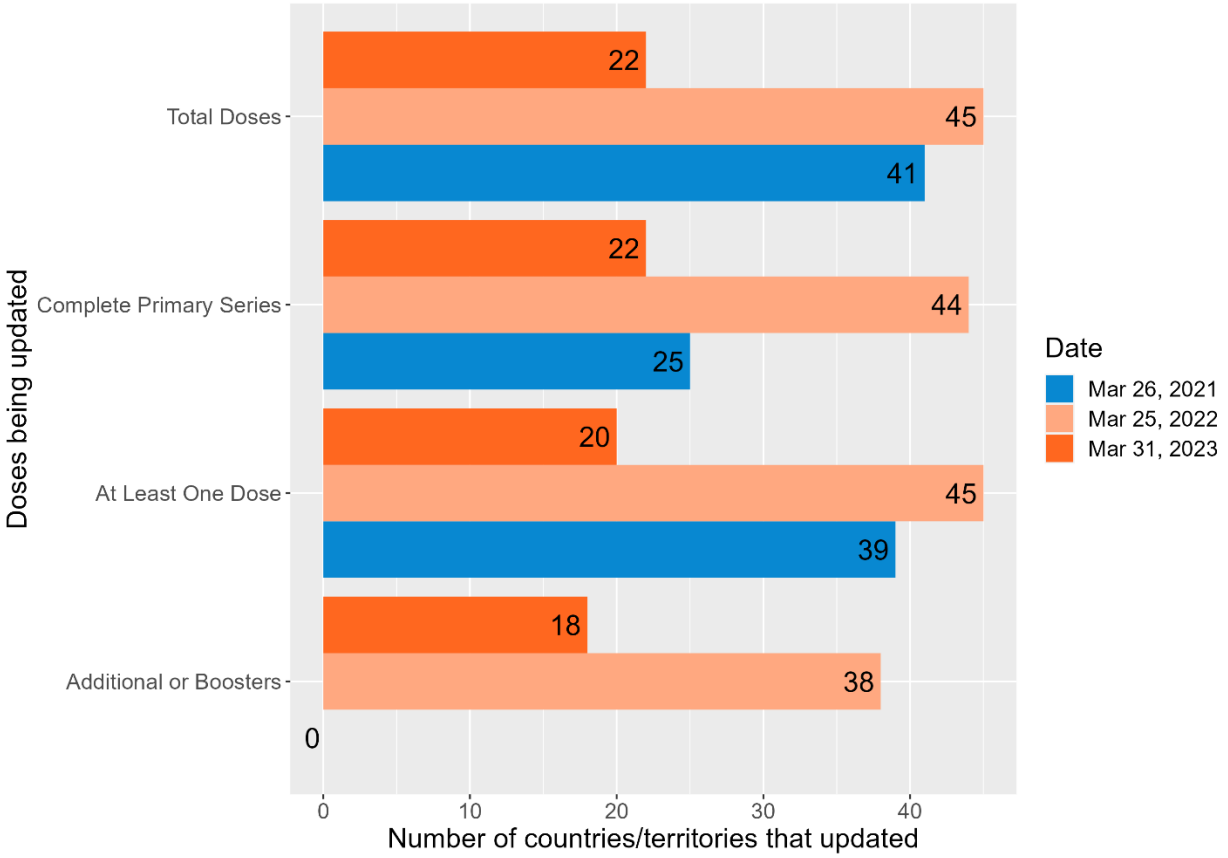


Figure 7 describes the number of countries and territories in the Americas that updated their national dashboards or provided up-to-date COVID-19 vaccination information to PAHO by the end of March of each year (2021, 2022 and 2023). Between Q4 2021 and Q1 2022, PAHO recorded among the highest reporting rates for the Region. On the week of 8 October 2021, a maximum of 50 countries and territories updated their COVID-19 vaccination data. By 25 March 2022, most countries were still reporting the COVID-19 vaccination data regularly.

However, by March 2023, reporting rates for updated coverage estimates have fallen to levels similar to those from March 2021, when vaccination operations had just recently begun. For the "At Least One Dose" category, both March 2021 and March 2022 show significantly higher reporting rates than those from March 2023.

Genomic surveillance

Through PAHO's Genomic Surveillance Regional Network and the work of Member States, 556,454 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 4 April 2023.

The vast majority of SARS-CoV-2 viruses circulating globally are sublineages of Omicron. According to the Pango Network nomenclature, Omicron comprises the BA.1 to BA.5 sublineages, which are in turn subdivided into diverse sublineages based on additional mutations that slightly change their genomic profile. Several sublineages arising from recombinations involving Omicron viruses have also been described.

Starting 15 March 2023, the WHO variant tracking system considers the classification of Omicron sublineages independently as **variants under monitoring** (VUM), **variants of interest** (VOIs), or **variants of concern** (VOCs)[1]. With these changes, no lineage has been classified as currently circulating VOC, while the recombinant sublineage XBB.1.5 was classified as a currently circulating VOI. Additionally, BQ.1 (a BA.5 sublineage), BA.2.75 and CH.1.1 (two BA.2 sublineages), and XBB, XBB.1.16 and XBF recombinants were classified as currently circulating VUMs. Finally, on 30 March 2023, the recombinant lineage XBB.1.9 which has a similar genetic profile in the key Spike (S) protein, was also classified as a VUM[2]. Alpha, Beta, Gamma, Delta and the Omicron original lineages are classified as previously circulating VOCs.

Since the introduction of Omicron in the Americas, different sublineages have been predominant and have then progressively been replaced by new sublineages (**Figure 8**). BA.1 sublineages were dominant at the beginning of Omicron circulation, followed by a predominance of BA.2 sublineages from week 12 to 24 of 2022, and then by a combination of BA.4 and BA.5 from week 25 to 34. In weeks 34 to 40 of 2022, BA.5 sublineages continued their expansion and, since week 41, the proportion of recombinant lineages has been increasing. Currently, most circulating viruses are recombinant and BA.5 sublineages, with some circulation of BA.2 sublineages (**Figure 8**). In fact, in the past eight weeks, recombinant lineages represented 76.0%, 87.1%, 91.6%, and 76.9% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively. During the same period, BA.5 sublineages represented 20.3%, 10.2%, 5.9% and 21.0% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively.

Within these main sublineages, most viruses currently circulating in the Americas correspond to VOI XBB.1.5 (recombinant) and VUM BQ.1 (BA.5 sublineage). In particular, XBB.1.5, first identified in the USA at the end of October 2022, has been detected in 29 countries and territories of the Americas. In the past eight weeks, VOI XBB.1.5 (and sublineages) represented 67.9%, 83.0%, 79.8%, and 54.4% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively. Moreover, model-based projections estimate that XBB.1.5 and sublineages account for 90.0% of the US sequences in week 13 of 2023[3]. VUM XBB.1.9.1 prevalence has also been increasing in the past few weeks in North America and model-based projections estimate it accounts for 4.6% (95%CI: 3.1-6.7%) of the US sequences[3].

It is important to note that the number of SARS-CoV-2 sequences deposited in GISAID by PAHO Member States has significantly decreased compared to mid-2022. This decrease, which is also observed in other regions, increases the risk of bias in the sublineage prevalence estimates reported above and reduces our collective ability to timely identify new

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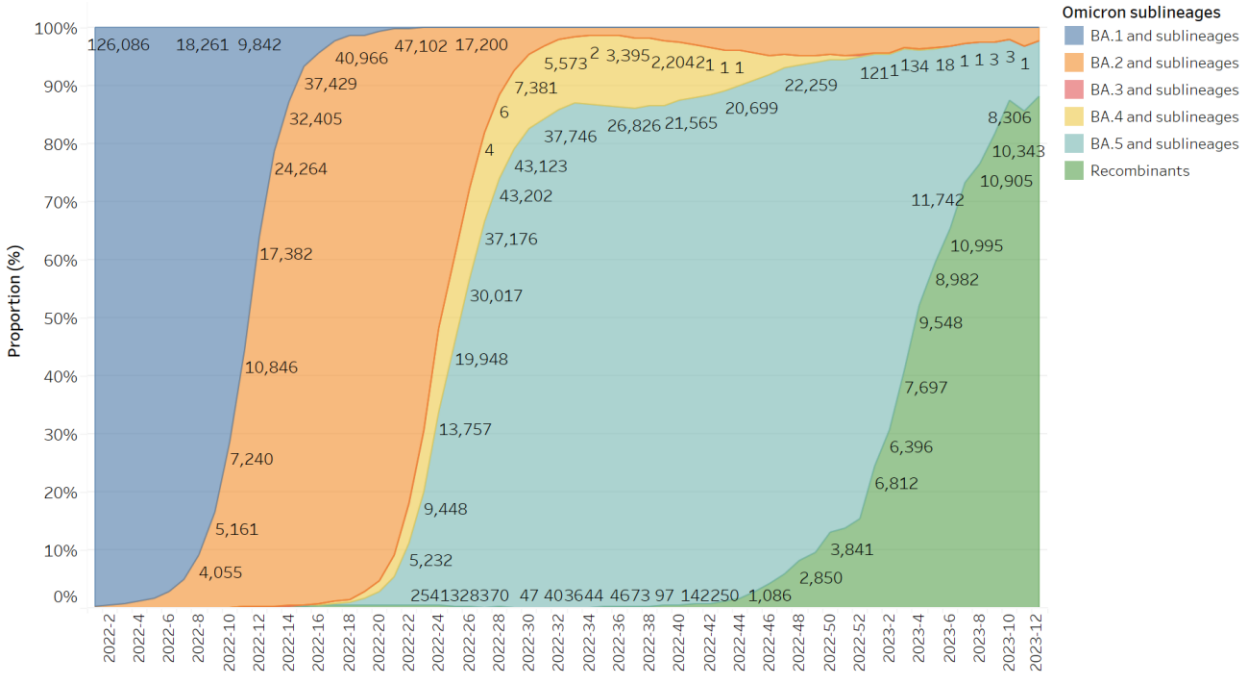
[1] World Health Organization. Statement on the update of WHO's working definitions and tracking system for SARS-CoV-2 variants of concern and variants of interest. Geneva: WHO; 2023. Available from: https://www.who.int/news/item/16-03-2023-statement-on-the-update-of-who-s-working-definitions-and-tracking-system-for-sars-cov-2-variants-of-concern-and-variants-of-interest

[2] World Health Organization. Tracking SARS-CoV-2 variants. Geneva: WHO; [date unknown] [cited 5 April 2023]. Available from: https://www.who.int/en/activities/tracking-SARS-CoV-2-variants/

[3] Centers for Disease Control and Prevention. COVID Data Tracker - Variant Proportions. Atlanta: CDC; [date unknown] [cited 5 April 2023]. Available from: https://covid.cdc.gov/covid-data-tracker/#variant-proportions

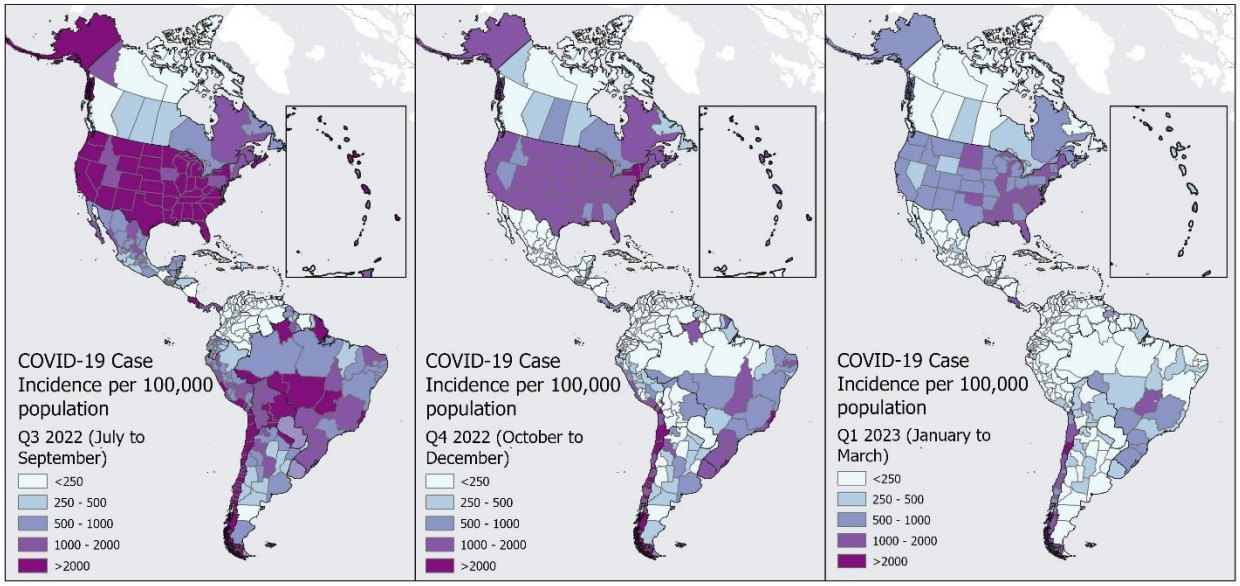
emerging lineages or new variants. In this context, **PAHO strongly encourages all countries in the Region to continue collecting representative samples for sequencing and to maintain appropriate COVID-19 genomic surveillance.**

Figure 8: Proportions of VOC Omicron sublineages identified by the countries in the Region of the Americas (January 2022 - March 2023)



Source: GISAID

Annex 1: COVID-19 incidence rate per 100,000 population. Region of the Americas. Comparison between Q3 2022, Q4 2022, and Q1 2023.



0 1,000 2,000 4,000 km

The maps (**Annex 1**) compare the quarterly COVID-19 incidence rates per 100,000 population in the region of the Americas for the last two quarters of 2022 (Q3: July – September, Q4: October – December) and the first quarter of 2023 (Q1: January – March).

Overall, we observe much higher incidence rates regionally in the third quarter of 2022, compared to incidence in the fourth quarter of 2022 and the first quarter of 2023.

Highest incidence rates in the third quarter of 2022 (July – September 2022) were found in the United States, Canada, Panama, Chile, Peru, Argentina, Bolivia, and Brazil as well as in several Caribbean Islands and territories including Puerto Rico, US Virgin Islands, Anguilla, Monserrat, Guadeloupe, Martinique, Barbados and French Guiana.

During the fourth quarter of 2022 (October – December 2022), rates were relatively lower compared to the previous quarter, mostly showing less than 2000 cases per 100,000 population. Rates over 2000 cases per 100,000 population were only found in some states in the United States (New Jersey, New York and Vermont), in Moquegua in Peru, some areas of Chile, in the state of Espirito Santo in Brazil and in Puerto Rico.

In the first quarter of 2023 (January – March 2023), rates continued decreasing compared to the previous quarter in all subregions. Rates over 2000 cases per 100,000 population were only found in Atacama in Chile, and in some areas in Puerto Rico.