Weekly COVID-19 Epidemiological Update - Region of the Americas

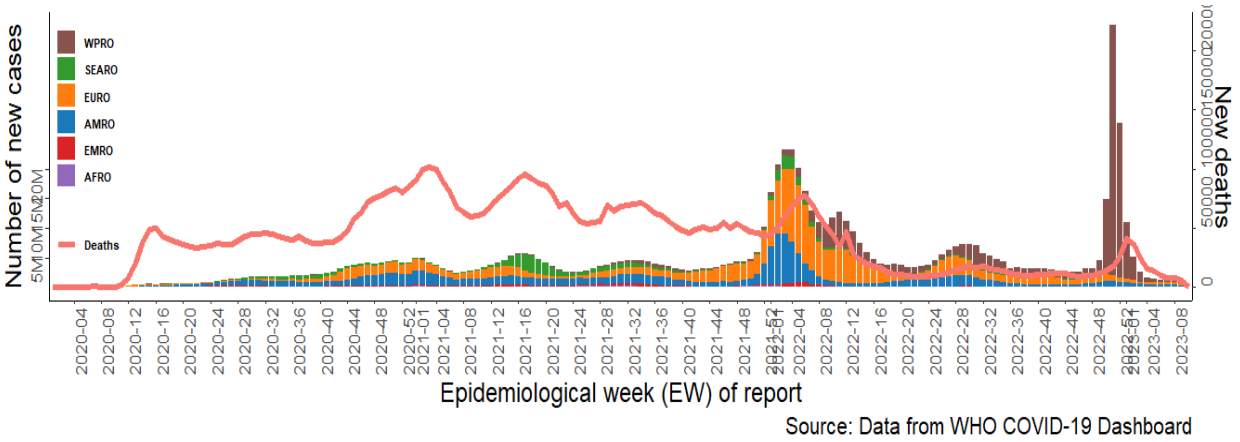
Issue 58, published 14 March 2023

Contents:

Executive Summary

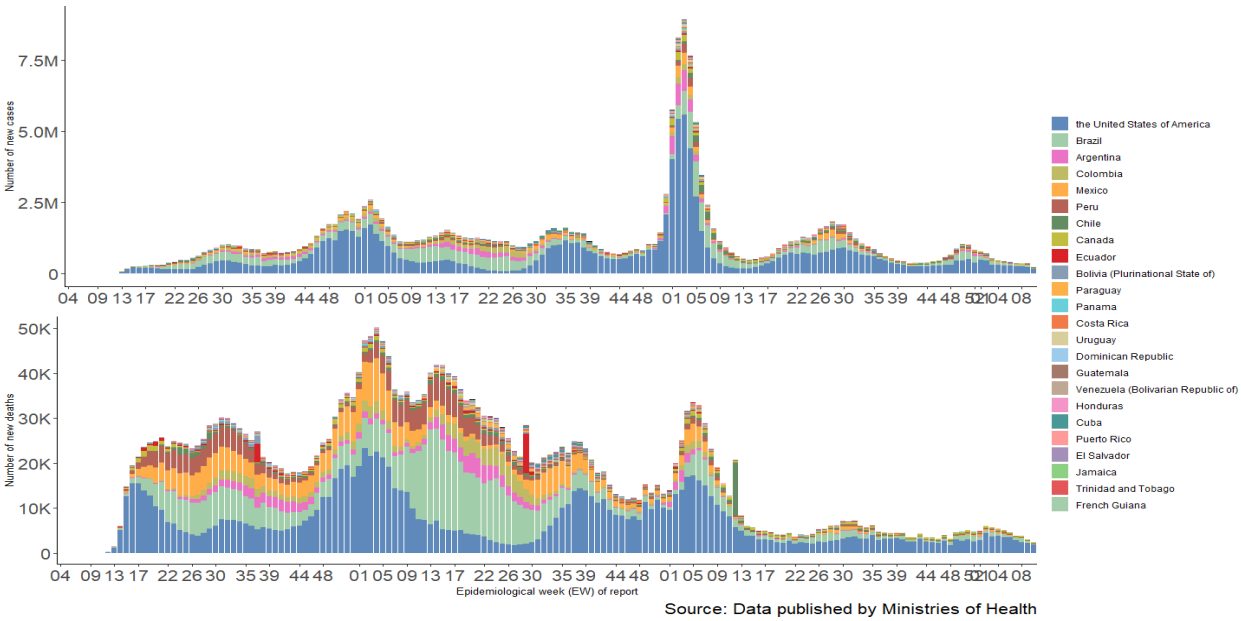
- **Since the onset of the pandemic** in 2020 and up to 14 March 2023, a cumulative total of 759.6 million COVID-19 cases including 6.9 million deaths were reported from all six WHO regions. During epidemiological week (EW) 10, both cases and deaths decreased in all regions.
- **In the region of the Americas,** 239,498 cases and 2,346 deaths were reported in EW 10 – a -30.3% decrease in cases and -22.9% decrease in deaths compared to the previous week.
- At the subregional level, COVID-19 cases and deaths decreased in all subregions.
- The overall weekly case notification rate for the region of the Americas was 23.4 cases per 100,000 population during EW 10 (33.3 the previous week). Between EW 10 and 9, the 14-day COVID-19 death rate was 5.3 deaths per 1 million population (6.7 the previous two weeks).
- Among 16 countries and territories in the region with available data, **COVID-19 hospitalizations** increased in 8 countries and territories (range: 1.5% - 100%) during EW 10 compared to the previous week. Among 14 countries and territories with available data, **COVID-19 ICU admissions** increased in 6 countries and territories (range: 0.3% - 100%).

Figure 1: COVID-19 cases and deaths by epidemiological week (EW) of report and WHO region. EW 4 2020 - EW 10 2023.



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 - 10 2023.



During EW 10, 239,498 new **COVID-19 cases** were reported in the region of the Americas - a relative decrease of -30.3% compared to previous week **(Figure 2)**. The highest number of COVID-19 cases in the last week was reported from North America (195,366 cases, -23.5% decrease) compared to the previous week. **(Table 1)**. During EW 10, the highest proportion of weekly COVID-19 cases at the national level were reported by the United States of America (170,593 new cases, -25.1% decrease), Chile (22,009 new cases, 32.9% increase), Mexico (16,085 new cases, -12% decrease).

Table 1: Weekly change (%) in cases and deaths between EW 9 and EW 10 by subregion. Region of the Americas

Subregion	Total Cases	Total Deaths	Cases EW 09	Deaths EW 09	Cases EW 10	Deaths EW 10	% Change Cases	% Change Deaths
Caribbean and Atlantic Ocean Islands	4,403,825	36,353	3,802	47	3,153	27	-17.1%	-42.6%
Central America	4,246,353	54,333	8,075	32	6,771	28	-16.1%	-12.5%
North America	114,518,949	1,498,094	255,306	2,425	195,366	2,088	-23.5%	-13.9%
South America	67,760,269	1,348,040	76,651	537	34,208	203	-55.4%	-62.2%

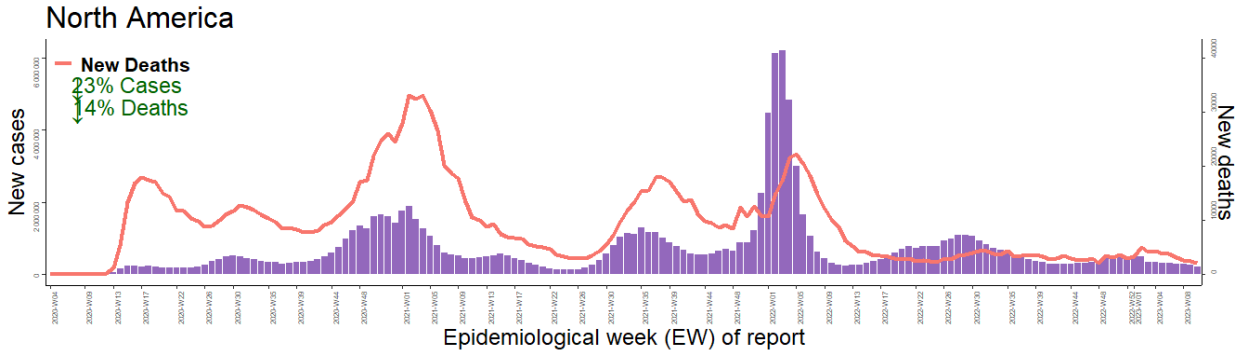
For the same period, 2,346 **COVID-19 deaths** were reported in the region of the Americas - a relative decrease of -22.9% compared to previous week **(Figure 2)**. The highest number of COVID-19 deaths in the last week was reported from North America (2,088 deaths, -13.9% decrease) **(Table 1)**. At the national level, the highest proportion of weekly COVID-19 deaths were reported by the United States of America (1,887 new deaths, -14.1% decrease), Canada (129 new deaths, -12.8% decrease), and Chile (79 new deaths, 23.4% increase).

A summary of the COVID-19 trends for EW 10 by subregion is presented below.

North America

During EW 10, COVID-19 cases decreased in North America, with the largest decline in cases being reported by the United States of America (170,593 cases, -25.1% decrease), followed by Mexico (16,085 cases, -12% decrease), and Canada (8,688 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 10 2023.



For the same period, **weekly COVID-19 deaths** decreased by -13.9% in North America during EW 10 relative to the previous week. All three countries in the subregion reported a decline in deaths – the largest decline in deaths were reported by the United States of America (1,887 new deaths, -14.1% decrease), followed by Canada (129 new deaths, -12.8% decrease), and Mexico (72 new deaths, -10% decrease).

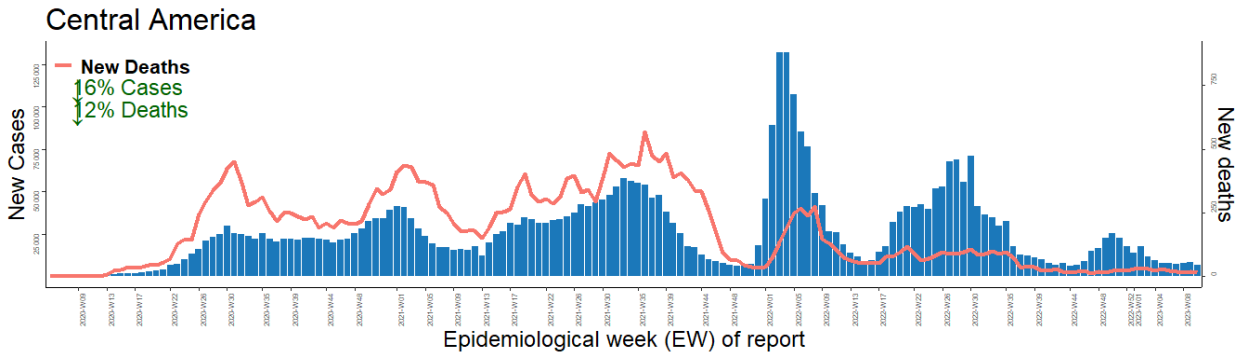
During EW 10, among the two countries in North America with available data for **COVID-19 weekly hospitalizations and ICU admissions**, the United States of America reported a decrease in its weekly COVID-19 hospitalizations (n=24,314, -7.5% decrease) and a decrease in its weekly ICU admissions (n=3,087, -6.7% decrease). In Canada, weekly hospitalizations increased, and weekly ICU admissions increased during EW 10 compared to the previous week -(3,620 hospitalizations, 3.1% increase & 191 ICU admissions, 4.4% increase).

The Omicron lineages BA.5 and XBB are circulating in all three countries in the subregion. In the United States of America, the proportions of BA.5 subvariant and its sub-lineages, BQ.1 and BQ.1.1 continue to decrease over the past three months, replaced by circulation of XBB sub-lineages that have been rapidly increasing since mid-December 2022. XBB.1.5 sub-lineage account for 89.5% of sequences for the week ending on 11 March 2023[1]. In Canada, the sub-lineages of BA.5 and XBB.1.5 made up about 46.4% and about 44.5% respectively, in EW 8[2].

Central America

In Central America, the overall **COVID-19 incidence** for the sub-region is on a downward trend with 6,771 new cases being reported during EW 10 – a -16.1% decrease 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 10 2023.



During EW 10, four countries and territories reported a decrease in **weekly cases** (range: -88.2 – -11.4% decrease). The countries with the largest decline in cases this week included Nicaragua (2 new cases, -88.2% decrease), Honduras (58 new cases, -56.7% decrease), and Guatemala (1,254 new cases, -33.6% decrease). Panama and Belize reported an increase in weekly cases (range: 10.5 – 47.1% increase).

Weekly deaths decreased by approximately -12.5% during EW 10 compared to the previous week **(Figure 4)** with only Costa Rica (21 new deaths, 40% increase) reporting an increase.

---

1 The United States Centers for Disease Control and Prevention (CDC). Variant Proportions. Accessed 14 March 2023. Available from: https://bit.ly/3Obz8cT
2 Public Health Agency of Canada (PHAC). COVID-19 Variants in Canada. Accessed 14 March 2023. Available from: https://bit.ly/3bbFRFr

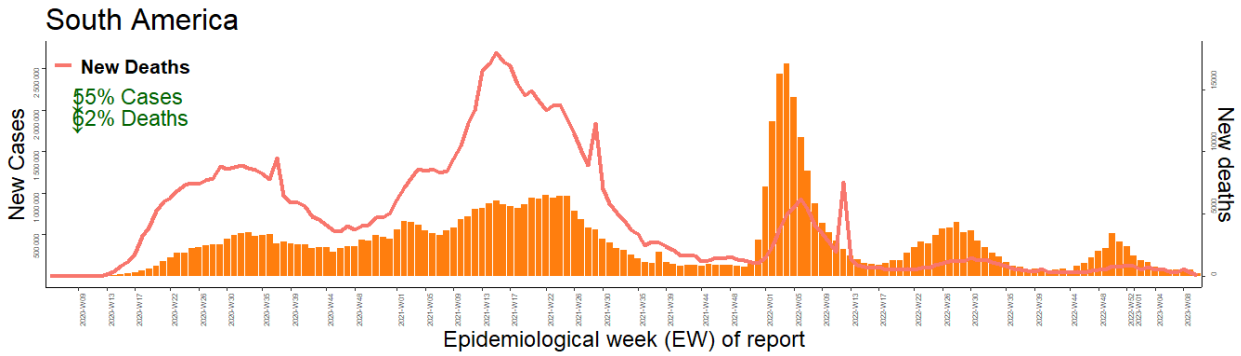
Among four countries with available data for **weekly COVID-19 hospitalizations** in the Central American subregion, three countries reported an increase in their weekly COVID-19 hospitalizations (range: 1.5 - 100%). Among three countries with available data for **weekly COVID-19 ICU admissions**, Costa Rica reported an increase in their weekly COVID-19 ICU admissions (n=15, 87.5% increase).

To date, the Omicron lineages XBB have been reported from six countries in the subregion: Belize, Costa Rica, El Salvador, Guatemala, Nicaragua, and Panama.

South America

In South America, the overall **COVID-19 incidence** for the subregion has decreased by -55.4%, with a total of 34,208 new COVID-19 cases being reported during EW 10 compared to the previous week **(Figure 5)**. Please note that data for EW 10 for Ecuador, Uruguay, and Argentina were not publicly available, resulting in a data artifact in percent change in the subregion.

Figure 5: COVID-19 cases and deaths by epidemiological week (EW). **South America. Region of the Americas.** EW 3 2020 - EW 10 2023.



During EW 10, four countries and territories reported an increase in cases (range: 10.6 – 66.2% increase). The largest proportion of cases were reported by Chile (22,009 new cases, 32.9% increase), followed by Brazil (9,467 new cases, -82.9% decrease), and Peru (1,291 new cases, -6,7% decrease). Due to switching from daily to weekly reporting during EW 9 in Brazil, the percent change could be resulting from a data artifact.

For the same period, a total of 203 **COVID-19 deaths** were reported in South America – a -62.2% decrease compared to the previous week. Chile was the only country that reported an increase in weekly deaths (79 new deaths, 23.4% increase), while the remaining countries and territories reported a decline in deaths (range: - 100 – 14.4% decrease) compared to the previous week.

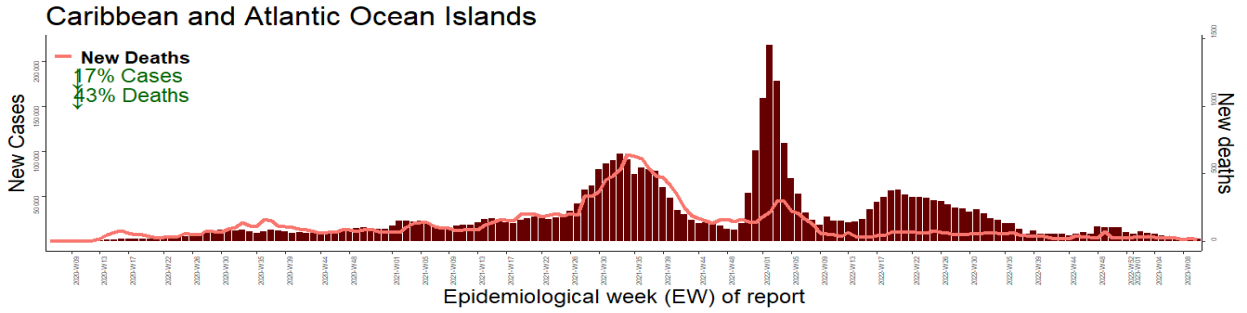
Among four countries and territories in the subregion with data available for **COVID-19 weekly hospitalizations**, Chile, and Venezuela (Bolivarian Republic of) reported an increase in their weekly COVID-19 hospitalizations – Chile (n=704, 3.5% increase) and Venezuela (Boliviaran Republic of) (n=86, 6.2% increase). For the same period, Chile and Argentina reported an increase in their weekly **COVID-19 ICU admissions** out of five countries with data available – Chile (n=84, 2.4% increase) and Argentina (n=288, 0.3% increase).

To date, eight countries in the subregion continue to report XBB sub-lineages: Argentina, Brazil, Chile, Colombia, Ecuador, Peru, Uruguay, and Venezuela (Bolivarian Republic of).

Caribbean and Atlantic Ocean Islands

In the Caribbean and Atlantic Ocean Islands sub-region, **COVID-19 weekly cases** decreased by -17.1% (3,153 new cases) compared to the previous week **(Figure 6)**. Seven countries and territories reported an increase in weekly cases (range: 1 – 100% increase). Notable increases in weekly cases in the subregion during EW 10 were observed in Bonaire (7 new cases, 100% increase), followed by Sint Maarten (3 new cases, 100% increase), and the Virgin Islands (U.S.) (33 new cases, 37.5% increase).

Figure 6: COVID-19 cases and deaths by epidemiological week (EW). **Caribbean and Atlantic Ocean Islands.** Region of the Americas. EW 6 2020 - EW 10 2023.



For the same period, **COVID-19 weekly deaths** decreased by -42.6% (27 weekly deaths) in the Caribbean and Atlantic Ocean Islands sub-region. Weekly deaths either remained the same, no cases were reported, or declined in all countries/territories of the subregion (range: -100 – -21.1% decrease).

During EW 10, among the countries and territories with available data for **weekly COVID-19 hospitalizations**, the Dominican Republic and Trinidad and Tobago reported an increase in their weekly COVID-19 hospitalizations (range: 41.5 - 100% increase). Among the countries and territories with data available for **COVID-19 ICU admissions**, Martinique and Trinidad and Tobago reported an increase in their weekly COVID-19 ICU admissions (range: 100 - 100% increase).

To date, XBB sub-lineages have been reported from 18 countries and territories in the subregion. 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: Comparison of Reporting Momentum and Yearly Coverage Uptake for 2021 and 2022 (Region of the Americas)

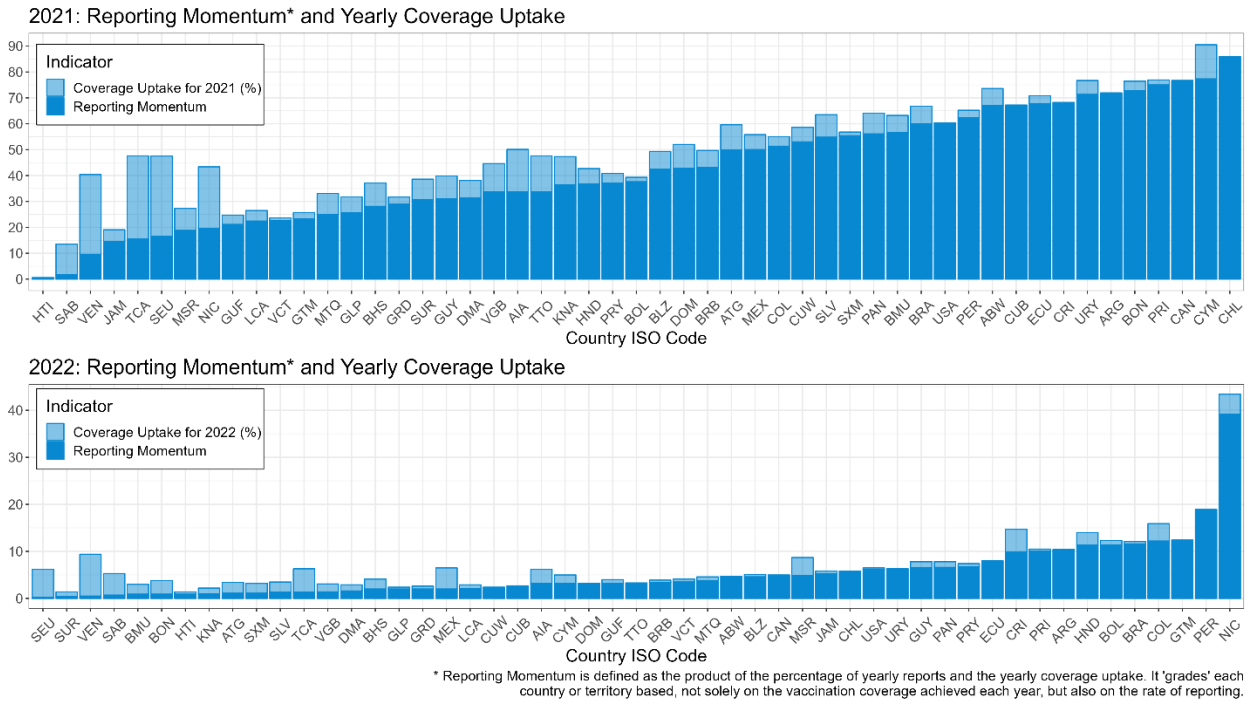


Figure 7 further describes the decrease in reporting rate by comparing "Reporting Momentum", a variable obtained by the product of:

1. The country's yearly reporting rate (i.e., the quotient of the number of times a country reported and the amount of opportunities for report that were available that year)
2. The coverage uptake for the given year

In qualitative terms, the higher the Reporting Momentum, the better the vaccination condition in a country: both because it has reported enough in a given year, and because it reached high coverage levels. In the opposite case, it may be that a country has achieved high coverage levels, but has reported little; then, it will have a lower Reporting Momentum.

With this in mind, **Figure 7** reveals some interesting details:

1. Due to the nature of the Reporting Momentum, the countries with the lowest coverage uptake are not necessarily the lowest in the graph.
2. The largest differences between Reporting Momentum and Coverage Uptake seem to group on the left side of each graph. This portrays the known situation: where some countries and territories may have done significant efforts to increase coverage levels but had poor reporting rates.
3. Of note, the amount of countries with 100% reporting rate increased from 6 in 2021, to 8 in 2022. Although a small change, this may be explained by the strengthening of reporting systems (in some countries) as the pandemic progressed, even though vaccination rates declined.

Genomic surveillance

Through PAHO's Genomic Surveillance Regional Network and the work from the Member States, 551,225 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 14 March 2023.

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 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 (two Delta sequences 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 their genomic profile. Several sublineages arising from recombinations involving Omicron viruses have also been described. BA.1 to BA.5 sublineages as well as recombinant sublineages include those denominated as BC.x to ES.x, according to the Pango Network nomenclature. In parallel, the WHO Technical Advisory Group on SARS-CoV-2 virus evolution had established and regularly updates a list of "Omicron subvariants under monitoring" to identify lineages that may require prioritized monitoring because they carry additional mutations that might confer some fitness advantage, including recombinants XBB and XBB.1.5 and BA.5 sublineage BQ.13 (for additional details on Omicron sublineage classification and nomenclature see4).

To facilitate the reporting of Omicron sublineage circulation in the Americas (see next paragraph), circulating viruses are grouped according to the ancestral sublineage (BA.1 to BA.5) or in the recombinant group. Data for specific subvariants under monitoring might also be reported separately to track their spread at the regional level.

The cumulative proportion of Omicron sequences collected in the Americas from November 2021 to date are: 39.4% of BA.1 (and BA.1 sublineages), 22.6% of BA.2 (and sublineages), <0.1% of BA.3 (and sublineages), 4.0% of BA.4 (and BA.4 sublineages), 31.2% BA.5 (and BA.5 sublineages), and 2.7% recombinant sublineages. Although BA.1 still 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 X1). Since then, BA.5 proportion has continued to increase, BA.4 proportion has significantly decreased, and BA.2 proportion has remained stable, owing to the circulation of several BA.2.75 sublineages. The proportion of recombinant lineages has also been increasing since week 41, driven by increased circulation of XBB (and sublineages).

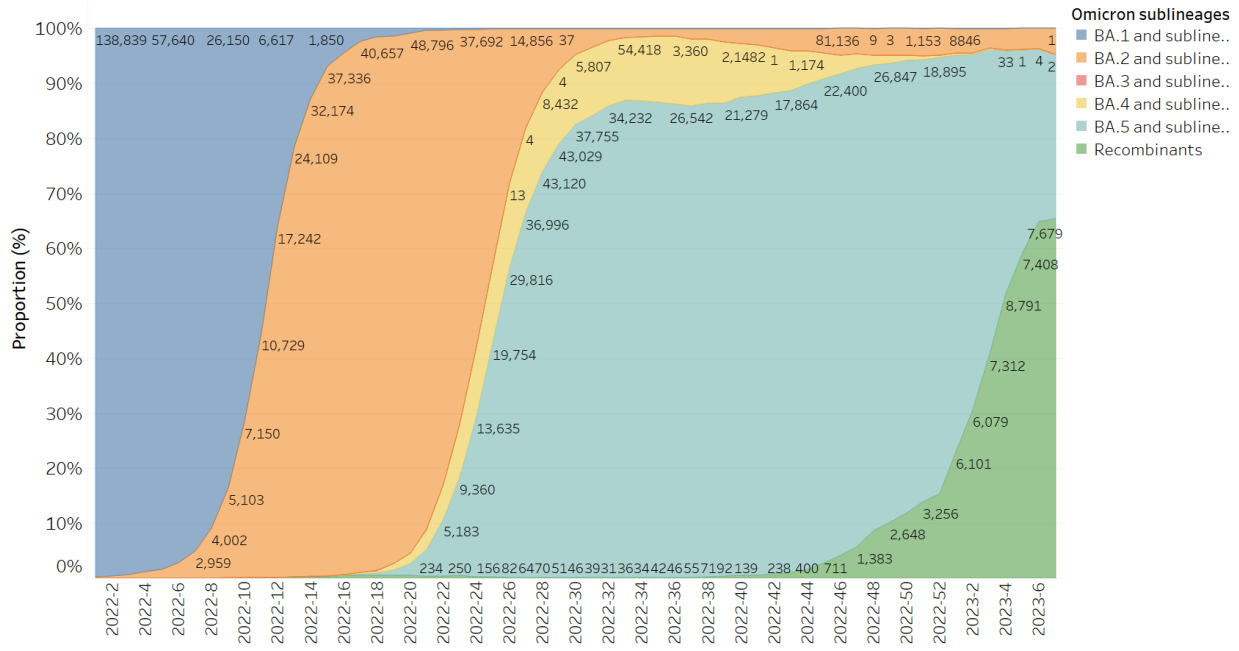
Most viruses currently circulating in the Americas correspond to recombinant (in particular, XBB.1.5) and BA.5 sublineages (in particular BQ.1), and to a lesser extent BA.2.75 sublineages (in particular CH.1.1). In the past eight weeks, recombinant lineages represented 47.4%, 49.3%, 71.8%, and 40.1% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively. During the same period, BA.5 and its sublineages

3 WHO. Tracking SARS-CoV-2 variants. Available from: https://bit.ly/3YO924o
4 PAHO. Weekly COVID-19 Epidemiological Update -EW9- 7 March 2023. Available from: https://bit.ly/42bwlIm

represented 45.1%, 41.2%, 26.9% and 55.8% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively. The XBB recombinant has been detected in 35 countries and territories (across all subregions). Countries reporting the highest prevalence of XBB sequences in the past eight weeks are Guatemala (84.2%), Peru (83.8%), Dominican Republic (81.5%), and Saint Lucia (80.0%). Among XBB sublineages, XBB.1.5 continues to be the most prevalent at the regional level. XBB.1.5 was first detected in the USA at the end of October 2022 and model-based projections estimate it accounts for 89.5% (95% CI: 85.8-92.3%) of the US sequences in EW10 20235. Overall, XBB.1.5 has been detected in 28 countries and territories of the Americas.

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 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.**

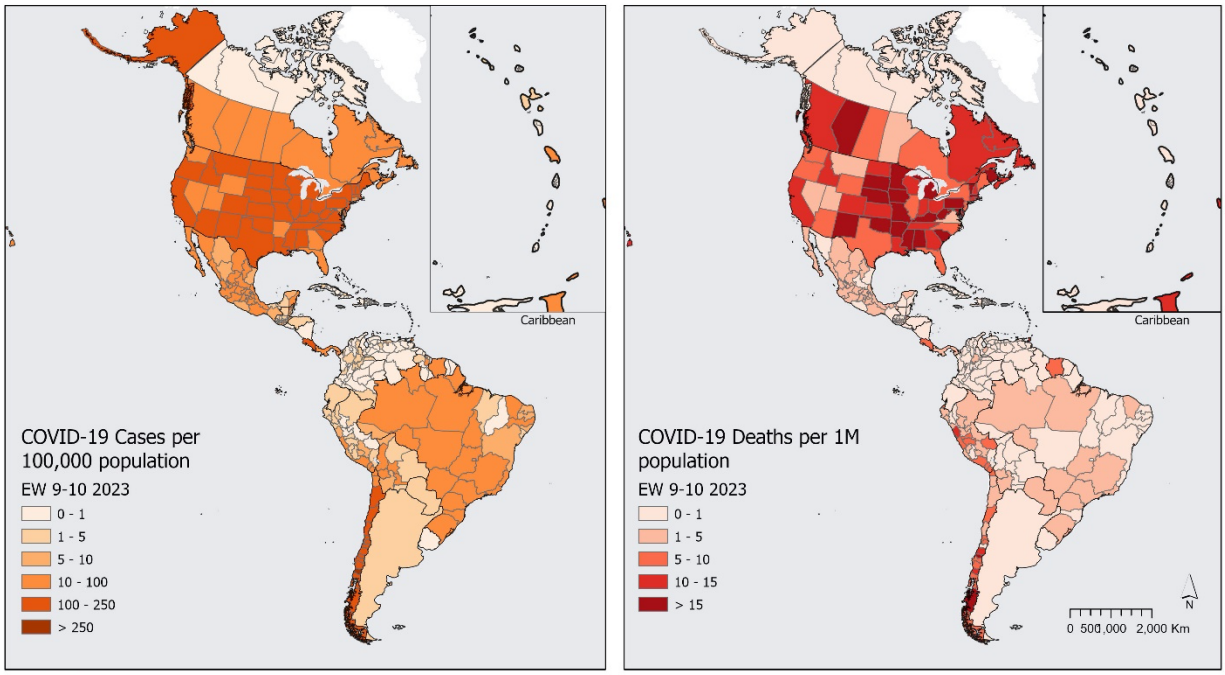
Figure 8: Proportions of VOC Omicron sublineages identified by the countries in the Region of the Americas (January 2022 - February 2023)



Source: GISAID

5 US CDC. COVID Data Tracker - Variant Proportions. Available from: https://bit.ly/42aCqVF

Annex 1. COVID-19 incidence rate per 100,000 population and COVID-19 mortality rate per 1 million population. Region of the Americas. Between EW 9 and 10 in 2023



These 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 9 and 10 of 2023.

The highest case incidence was observed in the USA and Chile, while the highest mortality was seen in the USA, Canada, and some parts of Chile.

In North America, most states in the US observed the highest incidence rates in the sub-region with over 100 cases per 100,000 populations. While the highest mortality rates with over 15 deaths per 1 million populations were observed in midwestern (Missouri, Iowa, Minnesota) and southern parts (Alabama, Louisiana, etc.) of the US, and some parts of Canada (Alberta, New Brunswick).

In Central America, the highest incidence and mortality rates were reported in Costa Rica, followed by Panama, while in South America, most regions of Chile and Brazil reported over 100 cases and between 10-100 cases per 100,000 populations, respectively. At the same time, some regions of Chile (Risen Del General Carlos Ibanez Del Campo, Nuble), and Ancash in Peru reported the highest mortality rates in the sub-region with over 10 deaths per 1M populations.

In the Caribbean territories, the overall incidence rate was relatively low. Puerto Rico reported the highest incidence rates, while Trinidad and Tobago and some parts of Puerto Rico presented the highest mortality rates in the sub-region.