

Weekly COVID-19 Epidemiological Update - Region of the Americas

Issue 52, published January 31, 2023

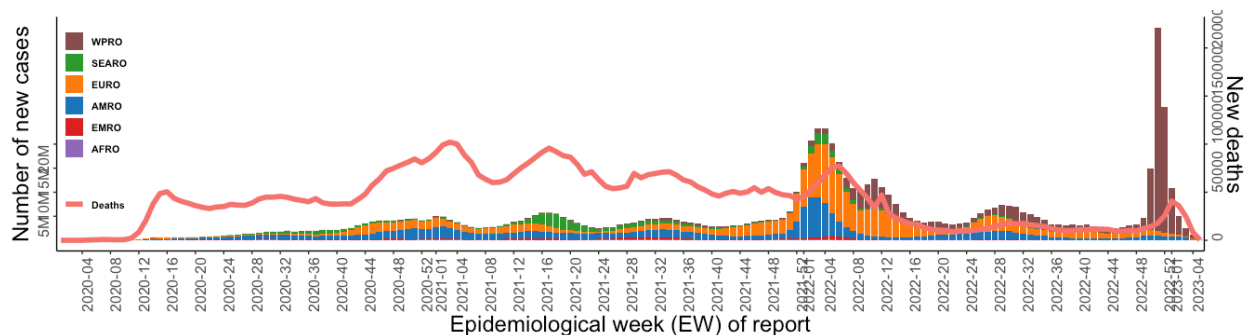
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Executive Summary

- **Since the onset of the pandemic** in 2020 and up to January 31, 2023, a cumulative total of approximately 753 million COVID-19 cases including about 6.8 million deaths were reported from all six WHO regions. During epidemiological week (EW) 4, COVID-19 cases and deaths decreased in all six WHO regions (range: cases; -52.1 - -11.8% & deaths; -82.7 - -12.9% decrease).
- **Globally**, approximately 1,521,557 new COVID-19 cases were reported in EW 4 (January 22, 2023-January 28, 2023) - a -40.1% decrease compared to EW 3 (January 15, 2023-January 21, 2023) (**Figure 1**). For the same period, 12,748 new COVID-19 deaths were reported globally – a -48.8% relative decrease compared the previous week.
- **In the region of the Americas**, 440,325 cases and 5,172 deaths were reported in EW 4 - a -19.2% decrease in cases and -12.9% decrease in deaths compared to the previous week.
- At the subregional level, COVID-19 cases decreased in all four subregions (range: -34.8 - -12.2%). Similarly, COVID-19 deaths decreased in all four subregions (range: -32 - -6.3% decrease).
- The overall weekly case notification rate for the region of the Americas was 43.1 cases per 100,000 population during EW 4 (53.3 the previous week). Between EW 4 and 3, the 14-day COVID-19 death rate was 10.9 deaths per 1 million population (11.5 the previous two weeks).
- Among 19 countries/territories in the region with available data, **COVID-19 hospitalizations** increased in 5 countries and territories (range: 3.1% - 38.5%) during EW 4 compared to the previous week. Among 18 countries and territories with available data, COVID-19 **ICU admissions** increased in 6 countries and territories (range: 8.2% - 300%).

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

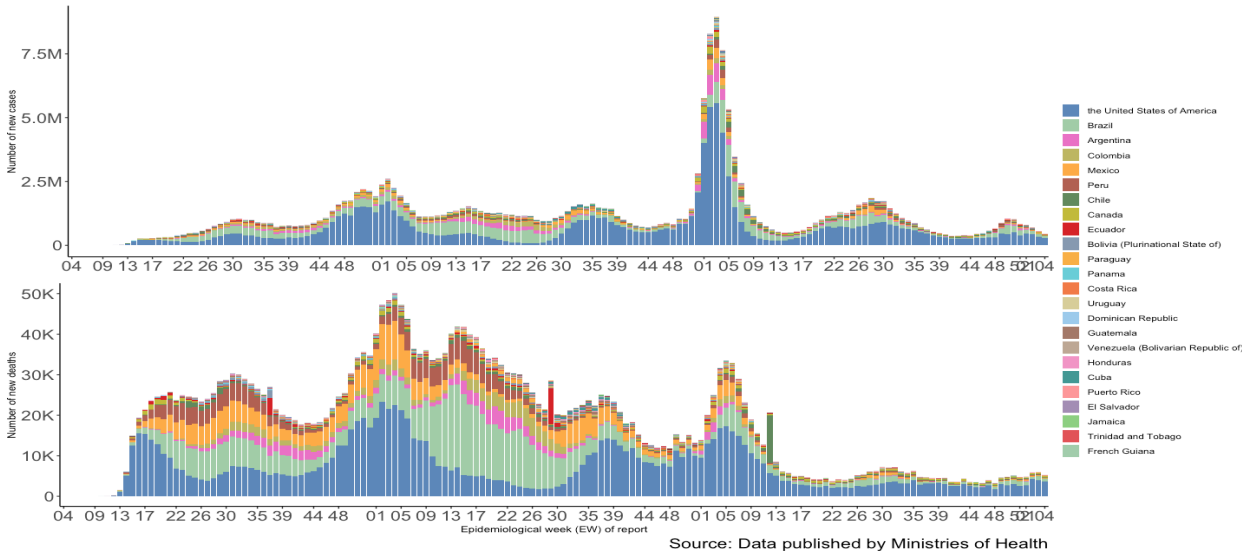


Source: Data from WHO COVID-19 Dashboard

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 - 4, 2023.



During EW 4, 440,325 new **COVID-19 cases** were reported in the region of the Americas - a relative decrease of -19.2% compared to previous week (**Figure 2**). The highest number of COVID-19 cases in the last week was reported from North America (317,823 cases, -12% decrease) compared to the previous week. (**Table 1**). During EW 4 at the national level, the highest proportion of weekly COVID-19 cases were reported by the United States of America (287,580 new cases, -11.3% decrease), Brazil (78,416 new cases, -31.8% decrease), Mexico (19,214 new cases, -19.3% decrease).

Table 1: Weekly change (%) in cases and deaths between EW 3 and EW 4 by subregion. Region of the Americas

Subregion	Total Cases	Total Deaths	Cases EW 03	Deaths EW 03	Cases EW 04	Deaths EW 04	% Change Cases	% Change Deaths
Caribbean and Atlantic Ocean Islands	4,377,074	36,106	9,385	69	7,592	55	-19.1%	-20.3%
Central America	4,201,202	54,117	11,368	55	9,195	41	-19.1%	-25.5%
North America	112,859,795	1,479,816	361,877	4,363	317,823	4,089	-12.2%	-6.3%
South America	67,343,952	1,343,843	162,104	1,452	105,715	987	-34.8%	-32.0%

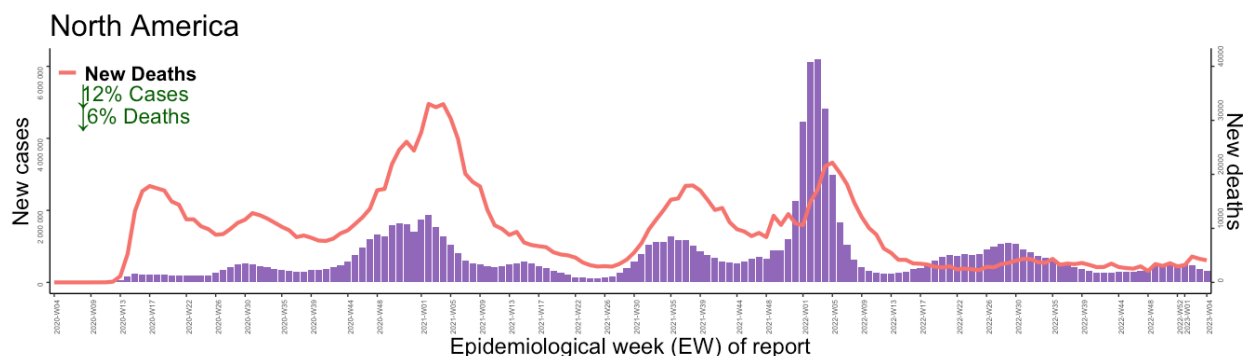
For the same period, 5,172 **COVID-19 deaths** were reported in the region of the Americas - a relative decrease of -12.9% compared to previous week (**Figure 2**). The highest number of COVID-19 deaths in the last week was reported from North America (4,089 deaths, -6% decrease) (**Table 1**). At the national level, the highest proportion of weekly COVID-19 deaths were reported by the United States of America (3,713 new deaths, -5.2% decrease), Brazil (554 new deaths, -41.8% decrease), and Canada (229 new deaths, -1.3% decrease).

A summary of the COVID-19 trends for EW 4 by subregion is presented below.

North America

The overall trends for **COVID-19 cases** have been decreasing in North America for the third consecutive week as of EW 4. During EW 4, all three countries in the subregion observed a decrease in weekly cases again – with the largest decline in cases being reported by Canada (11,029 cases, -20.9% decrease), followed by Mexico (19,214 cases, -19.3% decrease), and the United States of America (287,580 cases, -11.3% decrease).

Figure 3: COVID-19 cases and deaths by epidemiological week (EW). North America. Region of the Americas. EW 3, 2020 - EW 4, 2023.



For the same period, **weekly COVID-19 deaths** decreased by -6.3% in North America during EW 4 relative to the previous week. Similar to weekly cases, all three countries in the subregion reported a decline in weekly deaths. The largest decline in deaths were reported by Mexico (147 new deaths, -31.3% decrease), followed by the United States of America (3,713 new deaths, -5.2% decrease), and Canada (229 new deaths, -1.3% decrease).

During 4, among the two countries in North America with available data for **COVID-19 weekly hospitalizations and ICU admissions**, the United States of America continued to report a decrease in both hospitalizations (n=33,339, -11.6% decrease) and ICU admissions (n=4,329, -10% decrease) for the third consecutive week. Similarly, Canada reported a decrease in both weekly hospitalizations (n=4,631, -9.2% decrease) and weekly ICU admissions (n=215, -19.8% decrease) during EW 4 compared to the previous week.

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 the BA.5 subvariant have been gradually decreasing over the past three months and its sub-lineages, BQ.1 and BQ.1.1, have been decreasing in the last month, while the estimated proportions of XBB sub-lineages have been increasing over the past few weeks – accounting for 64.1% (including 61.3% of XBB.1.5) of sequences for the week ending on 28 January 2023¹. The sub-lineages of BA.5 and XBB.1.5 made up about 87.1% (including 5.1% of BQ.1 and 36.1% of BQ.1.1) and about 6.2% in EW 2, respectively in Canada². The sub-lineages of BA.5 and XBB made up about 93.3% and 6.7% of sequences in EW 52, 2022 in Mexico, respectively.

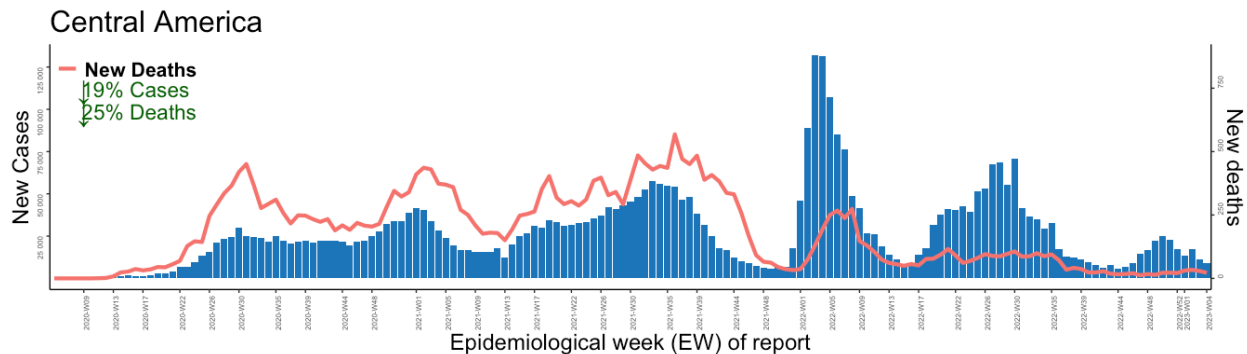
1 The United States Centers for Disease Control and Prevention (CDC). Variant Proportions. Accessed 31 January 2023. Available at: <https://bit.ly/3Obz8cT>

2 Public Health Agency of Canada (PHAC). COVID-19 Variants in Canada. Accessed 31 January 2023. Available at: <https://bit.ly/3bbFRFr>

Central America

In Central America, the overall **COVID-19 incidence** for the sub-region is on a downward trend with 9,195 new cases being reported during EW 4 – -19.1% 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 4, 2023.



During EW 4, **COVID-19 weekly cases** decreased in all countries and territories in the subregion (range: -84.7 - -1.1% decrease). The countries with the largest decline in cases this week included Honduras (147 new cases, -84.7% decrease), Belize (55 new cases, -65.2% decrease), and Costa Rica (3,805 new cases, -21.7% decrease). Please note the percent change in deaths for Honduras might be a result of a data artifact due to lack of publicly available data for the complete week for EW 4.

During EW 4, **weekly deaths** of the subregion decreased by approximately -25.5% relative to the previous week (**Figure 4**). All three countries/territories that reported deaths during EW 4 observed a decline in weekly deaths – Guatemala (23 new deaths, -4.2% decrease), Costa Rica (16 new deaths, -15.8% decrease), and Panama (2 new deaths, -100% decrease). The remaining four countries/territories did not report any deaths during EW 4.

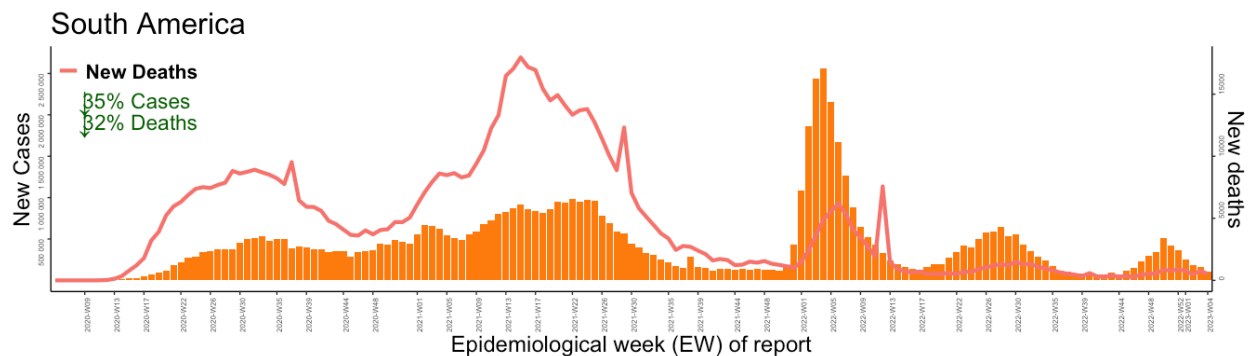
Among four countries/territories with available data for **weekly COVID-19 hospitalizations** in the Central American subregion, two reported an increase in their weekly COVID-19 hospitalizations – Panama (65 hospitalizations, 22.6% increase) and Costa Rica (165 hospitalizations, 3.1% increase) while the remaining two reported a decline (range: -100 - -18.2% decrease). Among three countries and territories with available data for **weekly COVID-19 ICU admissions**, one country – Honduras – reported an increase in their weekly COVID-19 ICU admissions (3 ICU admissions, 50% increase) while the remaining two either reported a decline – Panama (1 ICU admission, -50% decrease) – or remained the same – Costa Rica (18 ICU admissions, 0% change).

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

South America

In South America, the overall **COVID-19 incidence** for the subregion has decreased by -34.8%, with a total of 105,715 new COVID-19 cases being reported during EW 4 compared to the previous week (**Figure 5**). Please note that data for EW 4 for Ecuador was not publicly available, could result in a data artifact in percent changes in cases and deaths in the subregion.

Figure 5: COVID-19 cases and deaths by epidemiological week (EW). South America. Region of the Americas. EW 3, 2020 - EW 4, 2023.



During EW 4, all countries and territories in the subregion reported a decline in **COVID-19 weekly cases** (range: -88.2 - -21.2% decrease) The largest decline in cases was reported by Paraguay (478 new cases, -88.2% decrease), followed by Colombia (1,518 new cases, -68.5% decrease), and Argentina (4,426 new cases, -48.6% decrease).

During EW 4, a total of 987 **COVID-19 deaths** were reported in South America – a -32.0% decrease compared to the previous week. Three countries/territories in the subregion reported an increase in weekly deaths – the largest increase being reported by Uruguay (8 deaths, 100% increase), followed by Paraguay (42 deaths, 31.3% increase), and Peru (123 deaths, 6% increase). The largest decline in deaths were reported by Bolivia (Plurinational State of) (3 new deaths, -76.9% decrease), followed by Argentina (27 new deaths, -51.8% decrease), and Brazil (554 new deaths, -41.8% decrease) compared to the previous week.

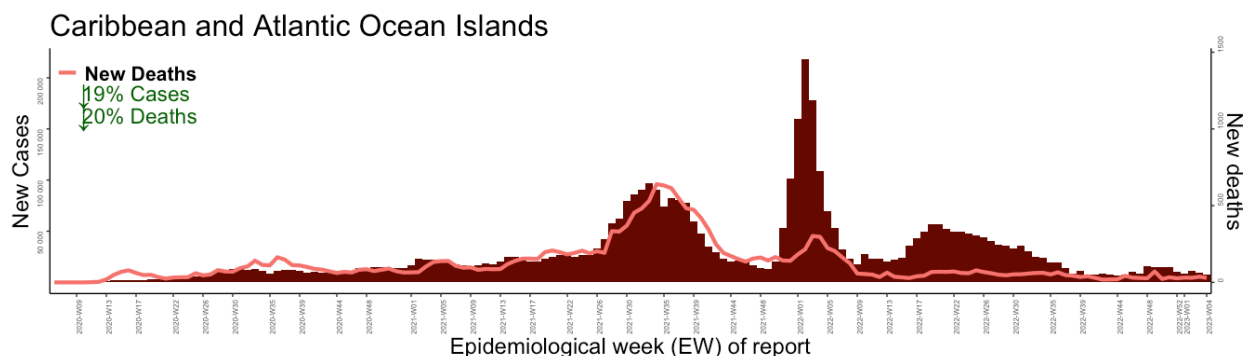
Among three countries and territories in the subregion with data available for **COVID-19 weekly hospitalizations**, Venezuela (Bolivarian Republic of) reported an increase in weekly COVID-19 hospitalizations (205 hospitalizations, 38.5% increase), while the remaining two reported a decline – Peru (146 hospitalizations, -36% decrease) and Chile (924 hospitalizations, -7% decrease). For the same period, one out of four countries and territories with data available for **COVID-19 ICU admissions** reported an increase in weekly COVID-19 ICU admissions – Peru (66 ICU admissions, 8.2% increase) while the remaining three reported a decline – Uruguay (24 ICU admissions, -25% decrease), Argentina (363 ICU admissions, -10.1% decrease), and Chile (107 ICU admissions, -3.6% decrease).

To date, the Omicron lineages BA.5 and XBB have been reported from nine and eight out of the 10 countries in the subregion, respectively – Argentina, Brazil, Chile, Colombia, Ecuador, Paraguay (BA.5 only), 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 -19.1% compared to the previous week (**Figure 6**). At the national level, cases increased in two countries/territories in the subregion (range: 50.9% - 100% increase) while they either declined (n=21, range: -100 - -3.4% decrease) or remained the same (n=1) in the remaining 22 countries/territories.

Figure 6: COVID-19 cases and deaths by epidemiological week (EW). Caribbean and Atlantic Ocean Islands. Region of the Americas. EW 6, 2020 - EW 4, 2023.



For the same period, **COVID-19 weekly deaths** decreased by 20.3% (55 deaths) in the Caribbean and Atlantic Ocean Islands subregion. Two countries and territories observed a relative increase in their weekly deaths in EW 4 compared to the previous week – Guyana (1 death, 100% increase) and Puerto Rico (40 new deaths, 29% increase). Weekly deaths declined in 10 countries and territories of the subregion (range: -100 – -63.6%) while the remaining countries/territories did not report any deaths during EW 4.

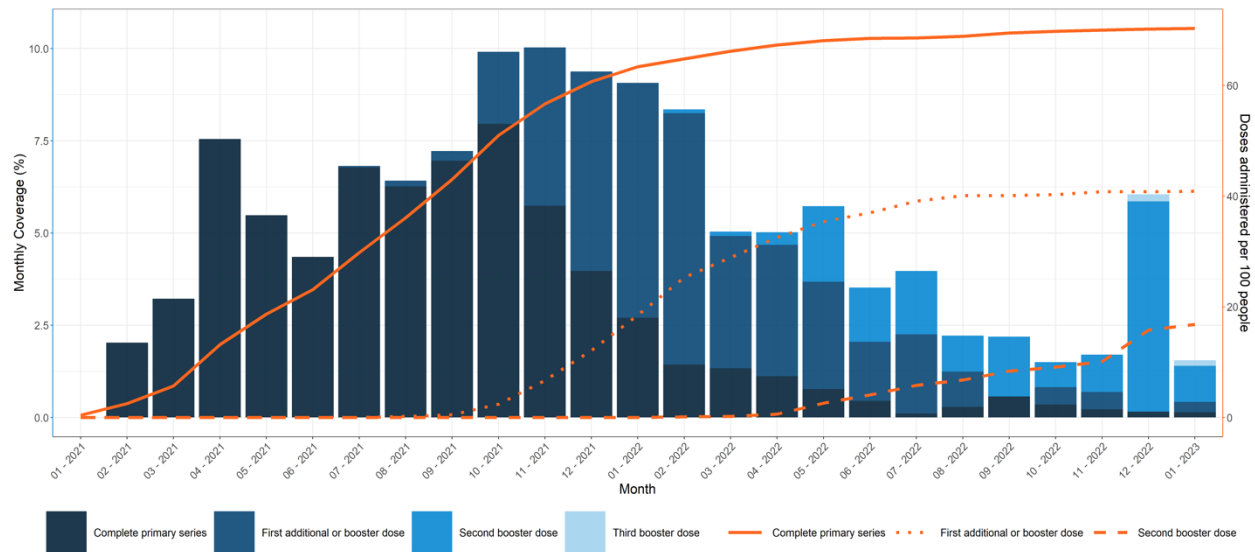
During EW 4, among 10 countries and territories with available data for **weekly COVID-19 hospitalizations**, two countries and territories reported an increase in their weekly COVID-19 hospitalizations – Cuba (51 hospitalizations, 13.3% increase) and Trinidad and Tobago (74 hospitalizations, 4.2% increase). The remaining eight countries/territories either reported a decline (n=6, range: -35.7 - -16% decrease) or remained the same (n=2). Among nine countries and territories with data available for **COVID-19 ICU admissions**, four reported an increase in their weekly COVID-19 ICU admissions (range: 50 – 300% increase) including Cuba (4 ICU admissions, 300% increase) and Trinidad and Tobago (6 ICU admissions, 200% increase).

Notable increases in weekly cases in the subregion during EW 4 were observed in Bonaire (4 new cases, 100% increase) and Jamaica (264 new cases, 50.9% increase) relative to the previous week.

To date, the Omicron lineages BA.5 and XBB have been reported from 18 and 11 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: Monthly uptake and coverage* for COVID-19 vaccinations in the Region of the Americas. As of EW 4, 2023.



While the completion of primary vaccination series has slowed down in the Region of the Americas, the monthly coverage rate of booster doses has increased by more than 70% since January 2022. Some countries and territories are now reporting the application of a third booster dose, shown in light blue in **Figure 7**. However, second booster doses have encompassed the highest monthly increase since August 2022, with an average monthly increase of 1.8%**.

Genomic surveillance

Through PAHO's Genomic Surveillance Regional Network and the work from the Member States, 526,024 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 31 January 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 (three Delta sequences in North America).

* 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

** Please note that the abnormal increase in second booster doses in the month of December 2022 is due to a change in data reporting, where some countries or territories began reporting booster doses separately. If this increase is not taken into account, the average monthly increase in second booster doses is 1.1% since August 2022.

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 DV.x. Several sublineages arising from recombinations involving Omicron viruses have also been described. The cumulative proportion of Omicron sequences collected in the Americas from November 2021 to date are: 40.8% of BA.1 (and BA.1 sublineages), 23.3% of BA.2 (and sublineages), <0.1% of BA.3 (and sublineages), 4.2% of BA.4 (and BA.4 sublineages), 30.7% BA.5 (and BA.5 sublineages), and 1.1% recombinant 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, BA.5 proportion has continued to increase, while BA.4 proportion has decreased. Moreover, BA.2 sublineages have increased again in the same period, with 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), a recombinant between two BA.2 sublineages.

Most viruses currently circulating in the Americas correspond to BA.5 and XBB sublineages, and to a lesser extent BA.2.75 sublineages (in particular CH.1.1). In the past eight weeks, BA.5 and its sublineages, in particular BQ.1, represented 80.3%, 67.4%, 40.9%, and 74.1% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively (**Figure 8**). During the same period, recombinant lineages represented 13.6%, 22.5%, 56.3% and 20.7% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively. In particular, the XBB recombinant has been detected in 25 countries and territories (across all subregions). Countries reporting the highest prevalence of XBB sequences in the past 8 weeks are Guatemala (87.2%), Dominican Republic (71.1%), and Peru (70.2%). Among XBB sublineages, XBB.1.5 is the most prevalent at the regional level. XBB.1.5 was first detected in the USA at the end of October 2022 and is estimated to represent 61.3% (95% CI: 51.5-70.3%) of the US sequences for EW4 2023¹. XBB.1.5 has also been detected in 17 additional countries and territories of the Americas (Argentina, Aruba, Bonaire, Brazil, Canada, Chile, Colombia, Costa Rica, Curacao, Dominican Republic, Ecuador, Guatemala, Mexico, Peru, Puerto Rico, Saint Vincent and the Grenadines, and Trinidad and Tobago).

An update rapid risk assessment for XBB.1.5 was published by WHO on 25 January². While available information shows a growth advantage for XBB.1.5, it does not suggest that XBB.1.5 has additional public health risks relative to the other currently circulating Omicron descendent lineages. Therefore, PAHO/WHO recommends the same precautions for XBB.1.5 as for other Omicron variants, including primary vaccination and boosters.

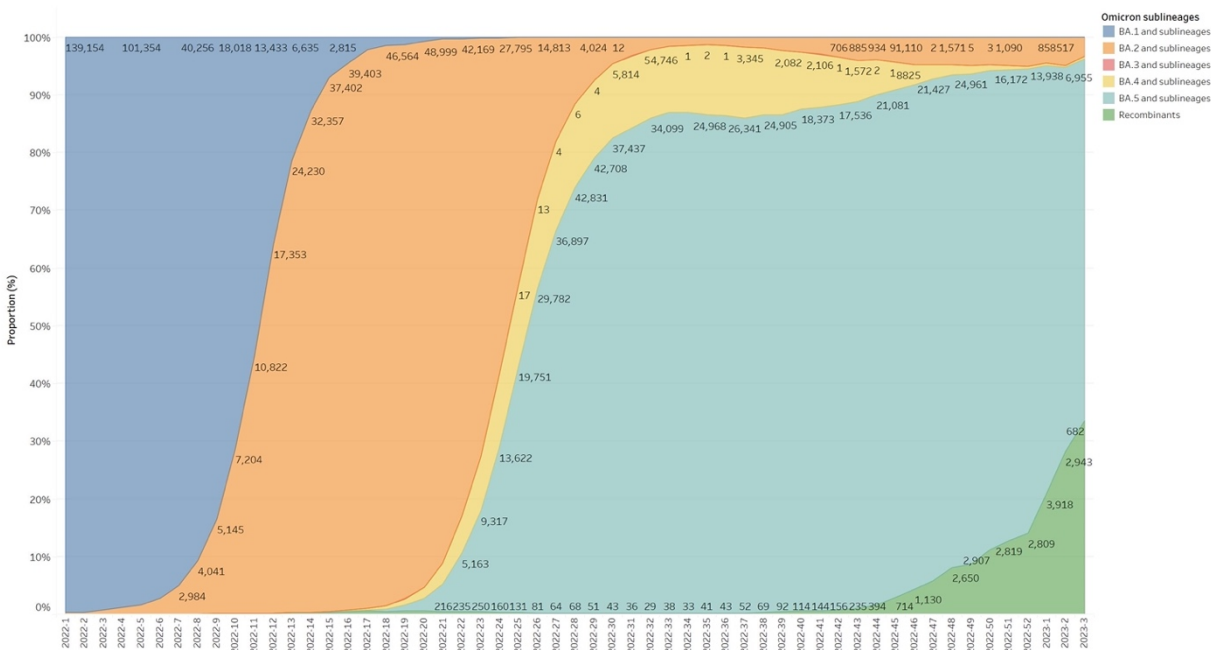
It is important to note that the number of SARS-CoV-2 sequences deposited in GISAID by PAHO Member States has significantly decreased compared to mid-2022. This decrease, which is also observed in other regions, increases the risk of bias in the sub-lineage prevalence estimates reported above and reduces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

1 US CDC. COVID Data Tracker - Variant Proportions. Available at: <https://covid.cdc.gov/covid-data-tracker/#variant-proportions>

2 WHO. XBB.1.5 Updated Rapid Risk Assessment, 25 January 2023. Available at: <https://www.who.int/docs/default-source/coronaviruse/25012023xbb.1.pdf>

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 - January 2023)

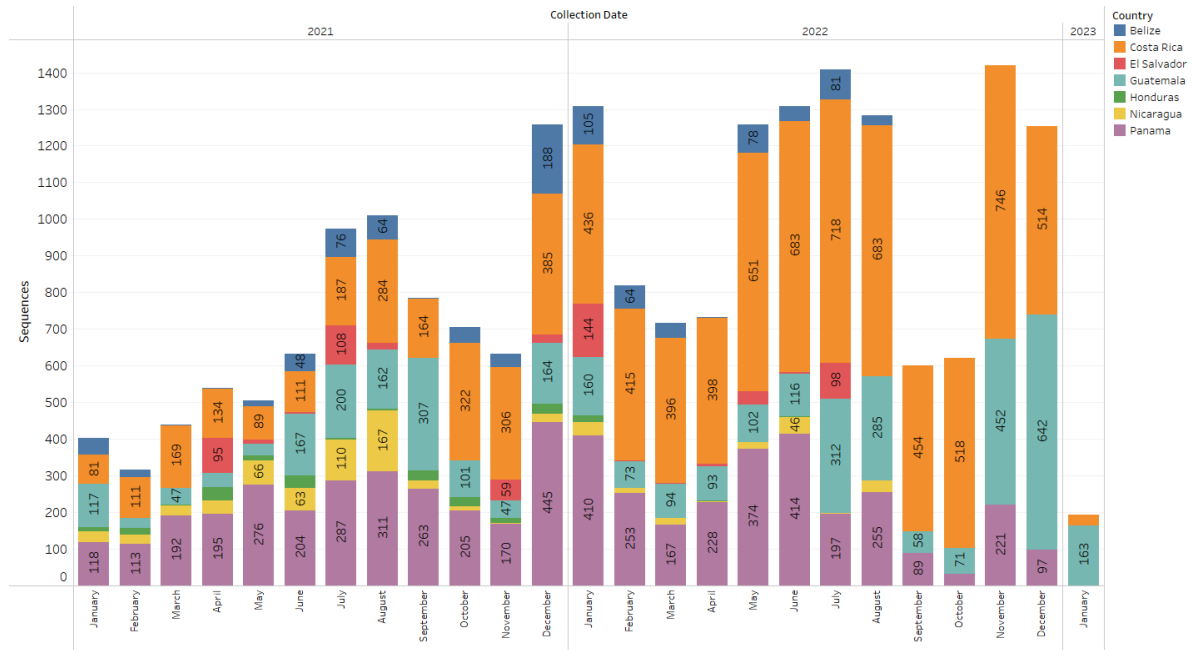


Source: GISAID

Spotlight: Sequencing and genomic surveillance in Central America

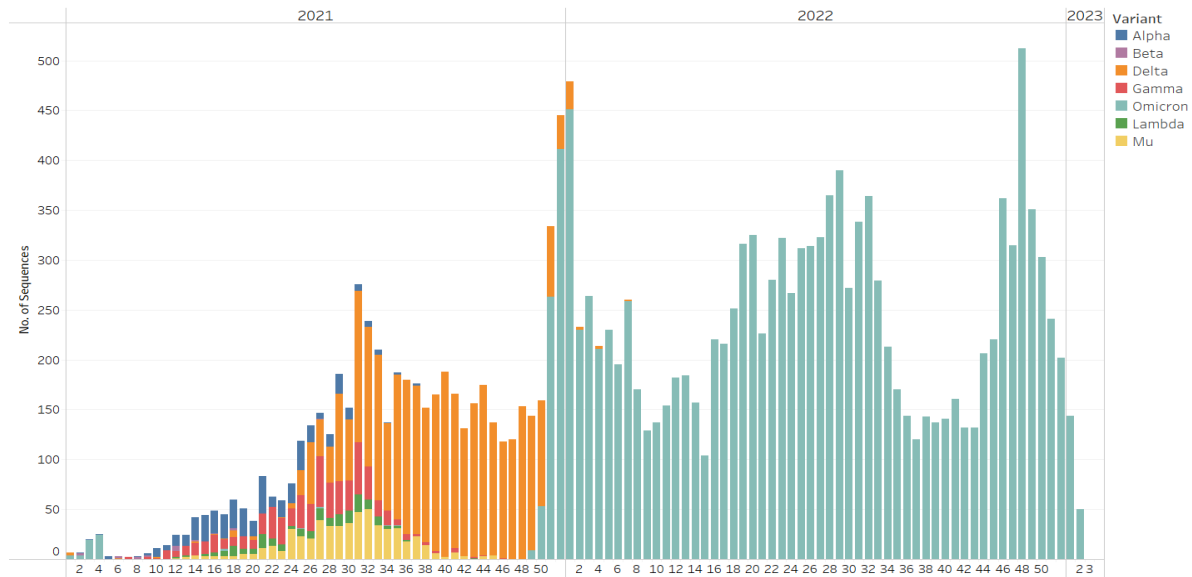
During the last 25 months (January 2021 to 28 January 2023), 21,096 whole genome sequences from Central American countries have been generated as part of the genomic surveillance systems (**Figure 9**). As in other subregions, Omicron is vastly predominant with no other “previously circulating” VOC/VOI detected in the past ten months (**Figure 10**). Since Omicron’s first detection, BA.1 and BA.1 sublineages represent the majority (33.2%) of cumulative sequences, while BA.2 and BA.2 sublineages represent 26.3% of the cumulative sequences, and BA.3, BA.4, BA.5, and recombinants (with their respective sublineages) represent 0.2%, 6.7%, 35.6% and 12% of cumulative sequences, respectively (**Figure 11**). Similarly to other subregions, BA.1 was progressively replaced by BA.2 (weeks 6-20 of 2022), which was then replaced by a combination of BA.4 and BA.5 (weeks 22-38) (**Figure 12**). Between weeks 10 and 28, two Omicron recombinants circulated in the subregion, XAF and XAM. More recently, the proportion of BA.4 has decreased and the proportions of BA.5, recombinants, and to a lesser extent BA.2 have increased. When focusing on the past eight weeks (4 December to 28 January), recombinants are predominant (56.3%) followed by BA.5 and its sublineages (41.2%) and BA.2 (mostly BA.2.75 sublineages) accounting for 1.9%. It is important to note that the majority of sequences for the eight-week period was contributed by Guatemala (56.2%).

Figure 9. Number of sequences generated monthly by countries in Central America (January 2021- January 2023)



Source: GISAID

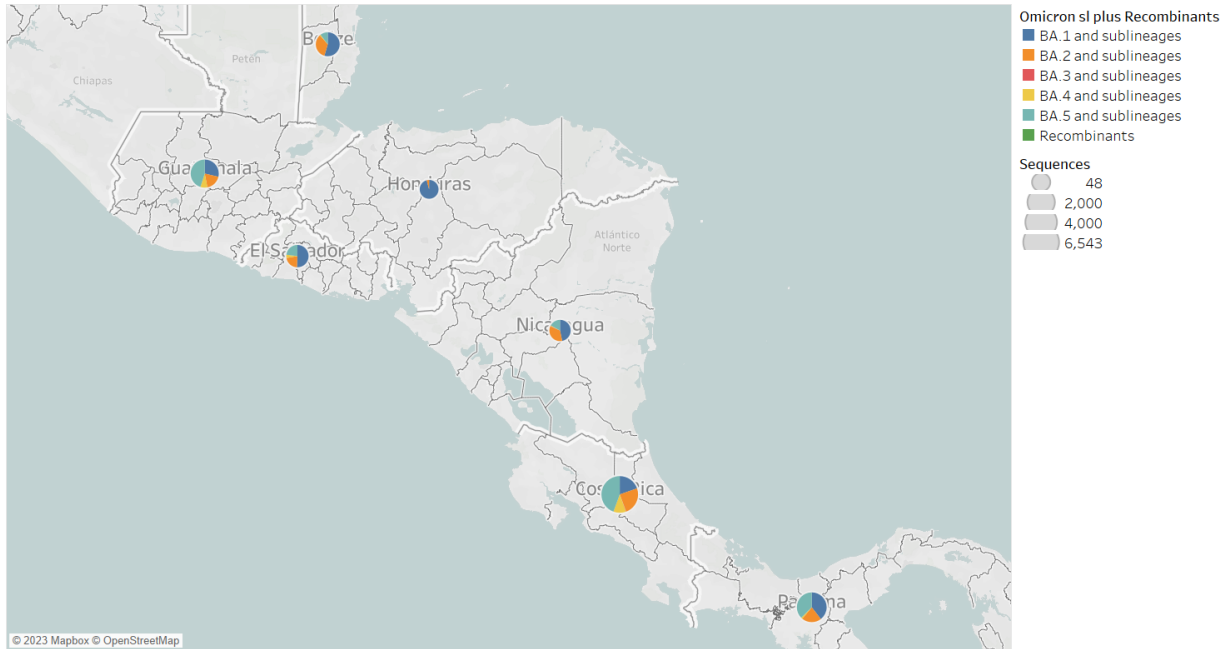
Figure 10. Variants detected and reported by the countries in Central America (January 2021- December 2022)



Source: GISAID

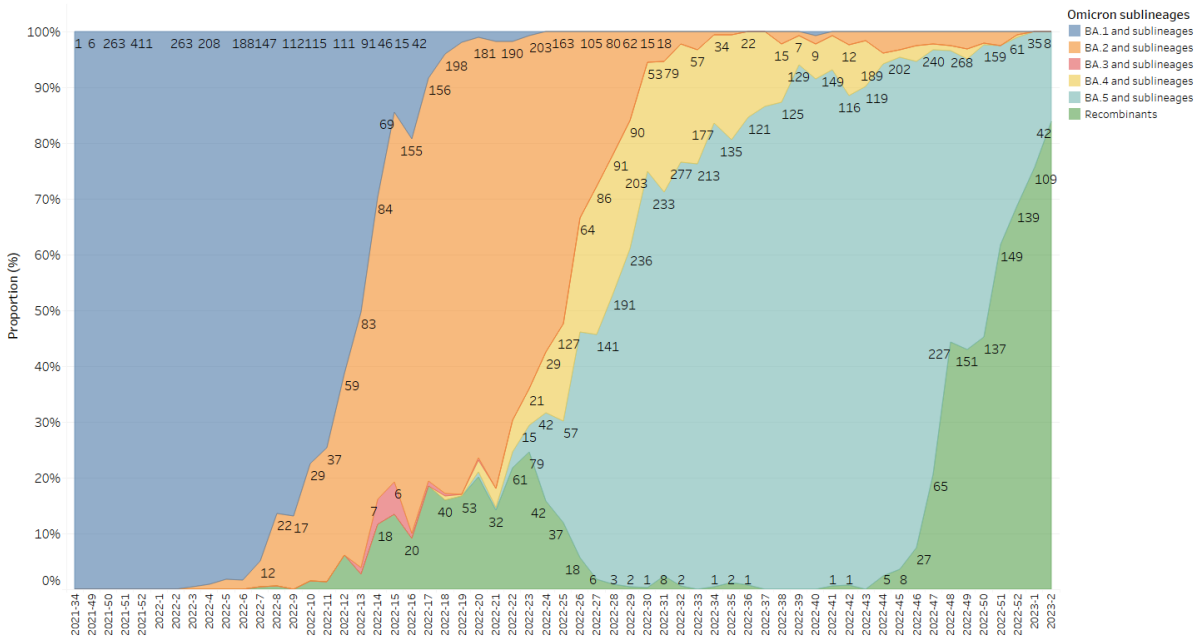
Country-specific data is available at: https://ais.paho.org/phi/viz/SARS_CoV2_variants_regional.asp

Figure 11. Distribution of Omicron sublineages identified by the countries in Central America (November 2021-January 2023)



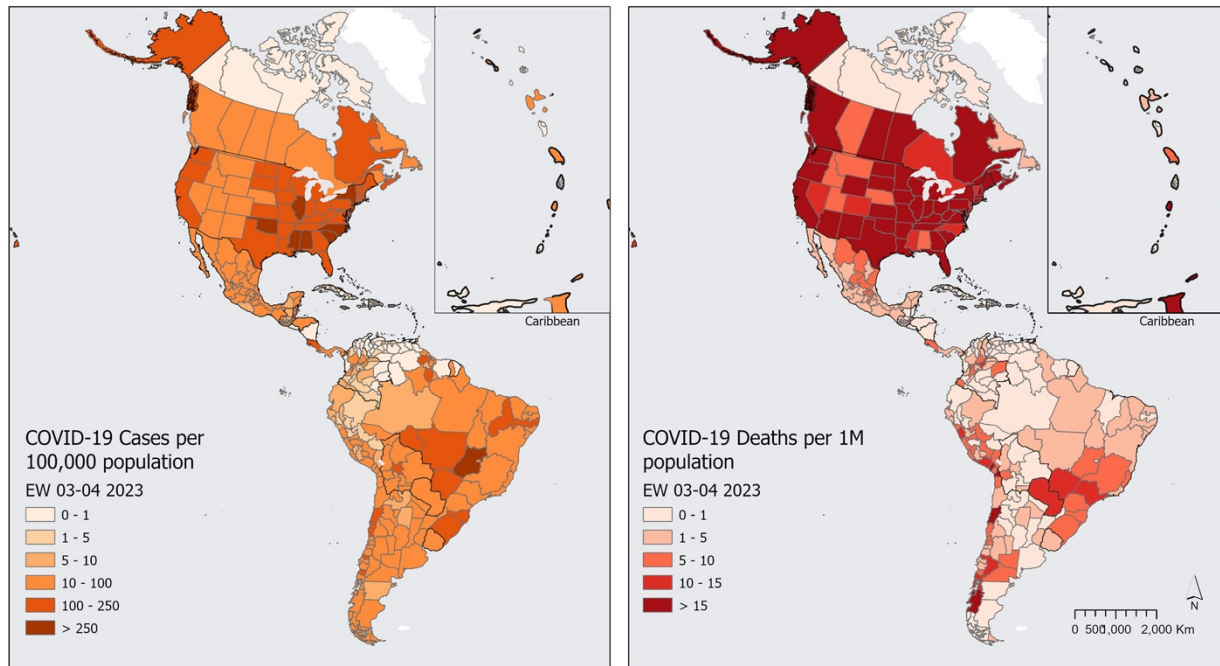
Source: GISAID

Figure 12. Distribution of VOC Omicron sublineages identified by the countries in Central America (January 2022–January 2023)



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 3 and 4, 2023.



These maps (**Annex 1**) depict the COVID-19 case incidence and mortality rates in the Americas in during EW 3 and 4, 2023.

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

In North America, it was observed that some parts of the US (New York, Illinois, Oklahoma, Alabama, Mississippi, North Carolina, South Carolina) and Canada (Quebec, New Brunswick, Nova Scotia) with the highest incidence rates. We observe the highest mortality rates in the region in most territories of the US and Canada.

In Central America, the largest number of reported cases was observed in Costa Rica, while in South America, Brazil, Chile, and Uruguay all report moderately high incidence rates. Most territories in Chile, Paraguay, and some parts of Brazil (Sao Paulo, Mato Grosso do Sul and surrounding territories) observe some of the highest incidence rates in South America.

In the Caribbean islands, Guadeloupe, Martinique, St Vincent and the Grenadines, and Trinidad and Tobago report the highest incidence rates in the last two weeks, while Trinidad and Tobago, and St Vincent and the Grenadines report the highest mortality rates.