

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

Issue 32, published September 13, 2022

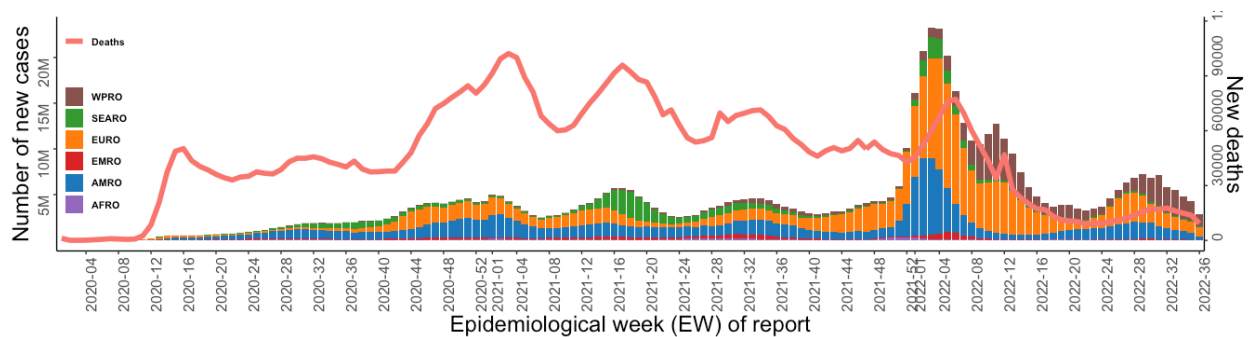
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### Executive Summary

- **Since the onset of the pandemic** in 2020 and up to September 13, 2022, a cumulative total of approximately 606 million COVID-19 cases including about 6.5 million deaths were reported from all six WHO regions. During epidemiological week (EW) 36, COVID-19 cases decreased in all six WHO regions (range: -36.1 - -14.2%), and COVID-19 deaths decreased in all (range: -30.5 - -10.1%) but one region – AFRO (9.6% increase).
- **Globally**, approximately 3,137,743 new COVID-19 cases were reported in EW 36 (September 04, 2022-September 10, 2022) - a 27.6% decrease compared to EW 35 (August 28, 2022-September 03, 2022) (**Figure 1**). For the same period, 10,993 new COVID-19 deaths were reported globally – a 21.2% relative decrease compared the previous week.
- **In the region of the Americas**, 613,014 cases and 4,041 deaths were reported in EW 36 - a -26.5% decrease in cases and -21.6% decrease in deaths compared to the previous week.
- At the subregional level, COVID-19 cases decreased all four subregions (range: -46.4 - -11.7%). Deaths increased in one subregion – Caribbean and Atlantic Ocean Islands (14.7%) – while the remaining three subregions reported a decline in weekly deaths (range: -24.3 - -21.7%).
- The overall weekly case notification rate for the region of the Americas was 59.9 cases per 100,000 population during EW 36 (81.5 the previous week). Between EW 36 and 35, the 14-day COVID-19 death rate was 9 deaths per 1 million population (10.5 the previous two weeks).
- Among 30 countries/territories in the region with available data, **COVID-19 hospitalizations** increased in 4 countries and territories (range: 14% - 133.3%) during EW 36 compared to the previous week. Among 24 countries and territories with available data, COVID-19 **ICU admissions** increased in 5 countries and territories (range: 12.5% - 150%).

**Figure 1:** COVID-19 cases and deaths by epidemiological week (EW) of report and WHO region. EW 4, 2020 - EW 36, 2022.

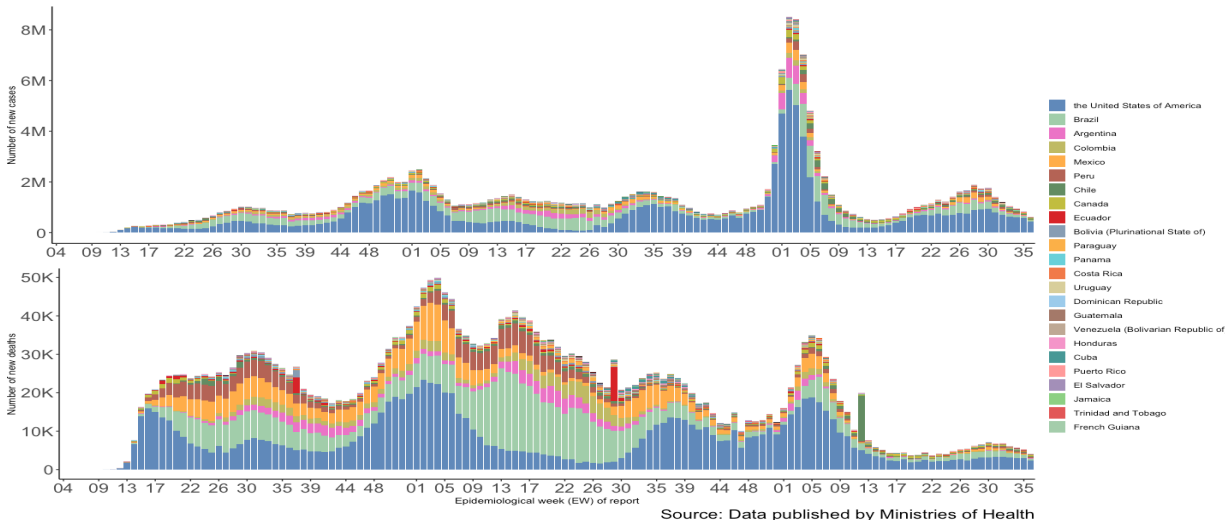


Source: Data from WHO COVID-19 Dashboard

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 - 36, 2022.



During EW 36, 613,014 new **COVID-19 cases** were reported in the region of the Americas - a relative decrease of -26.5% compared to previous week (**Figure 2**). The highest number of COVID-19 cases in the last week was reported from the North American subregion (457,221 cases, -25% decrease) compared to the previous week. (**Table 1**). During EW 36, the highest proportion of weekly COVID-19 cases were reported by the United States of America (430,048 new cases, -25.6%decrease), Brazil (60,594 new cases, -30.5%decrease), Chile (32,268 new cases, -19.5%decrease).

**Table 1:** Weekly change (%) in cases and deaths between EW 35 and EW 36 by subregion. Region of the Americas

Subregion	Total Cases	Total Deaths	Cases EW 35	Deaths EW 35	Cases EW 36	Deaths EW 36	% Change Cases	% Change Deaths
Caribbean and Atlantic Ocean Islands	4,193,842	34,846	19,563	102	17,266	117	-11.7%	14.7%
Central America	3,937,106	53,203	32,476	177	17,405	134	-46.4%	-24.3%
North America	105,167,134	1,415,993	612,745	3,329	457,221	2,605	-25.4%	-21.7%
South America	63,570,422	1,324,183	169,106	1,546	121,122	1,185	-28.4%	-23.4%

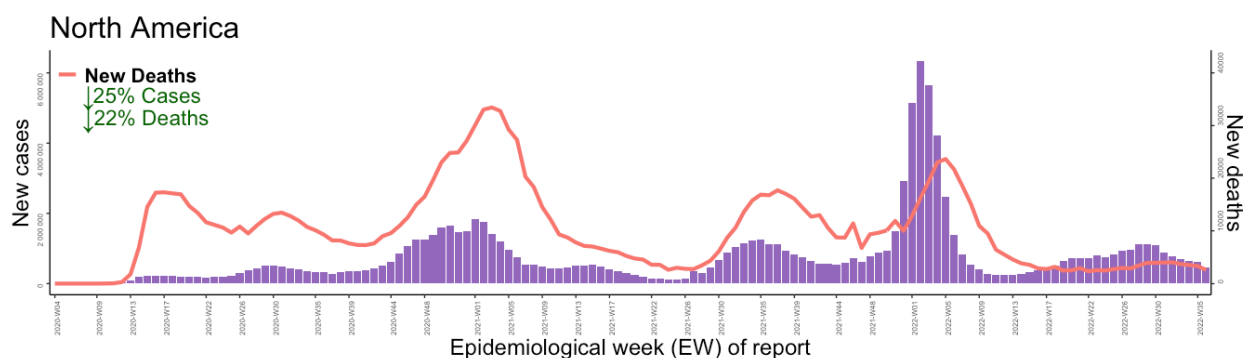
For the same period, 4,041 **COVID-19 deaths** were reported in the region of the Americas - a relative decrease of -21.6% compared to previous week (**Figure 2**). The subregion reporting the the highest number of COVID-19 deaths in the last week was North America (2,605 deaths, -21% decrease) (**Table 1**). At the national level, the highest proportion of weekly COVID-19 deaths were reported from the United States of America (2,306 new deaths, -21.4% decrease), Brazil (551 new deaths, -36.3% decrease), and Peru (255 new deaths, 9% increase).

**A summary of the COVID-19 trends for EW 36 by subregion is presented below.**

## North America

The overall trends for **COVID-19 cases** have been decreasing in North America since mid-July 2022 with a total of 457,221 new cases (-25.4% decrease) being reported during EW 36 as compared to the previous week. All three countries in the subregion reported a decline in weekly cases – the largest decline in cases were reported by Mexico (8,808 cases, -36.4 % decrease), followed by the United States of America (430,048 cases, -25.6 % decrease), and Canada (18,365 cases, -11.9 % decrease).

**Figure 3: COVID-19 cases and deaths by epidemiological week (EW). North America.** Region of the Americas. EW 3, 2020 - EW 36, 2022.



For the same period, **Weekly COVID-19 deaths** in North America have decreased since early August 2022 – with a total of 2,605 new deaths (-21.7% decrease) being reported 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 (62 new deaths, -53.7% decrease), followed by the United States of America (2306 new deaths, -21.4% decrease), and Canada (237 new deaths, -9.5% decrease) as compared to the previous week.

During EW 36, among the two countries in North America with available data for **COVID-19 weekly hospitalizations and ICU admissions**, both countries – the United States of America and Canada – did not report any substantial changes in weekly hospitalizations and ICU admissions compared to the previous week. The United States of America reported a slight decline in hospitalizations (n=35,270, -5% decrease) and ICU admissions (n=4,241, -5.4% decrease). Similarly, Canada reported a -7.4% decline in weekly hospitalizations (n=4,941) and a -8.5% decrease in ICU admissions (n=260) during EW 36 compared to the previous week.

The Omicron variant of concern (VOC) sub-lineages of BA.4 and BA.5 are predominant in all three countries in the subregion, and there were no substantial changes in proportions of the two sub-lineages compared to the previous week. The BA.5 and BA.4 sub-lineages made up about 87.5% and 11.4% of cases for the week ending on 10 September 2022 in the United States of America<sup>1</sup>, 90.1% and 8% for the week of 21 August 2022 in Canada<sup>2</sup>, and 88.11% and 9.79% as of EW 34 in Mexico, respectively.

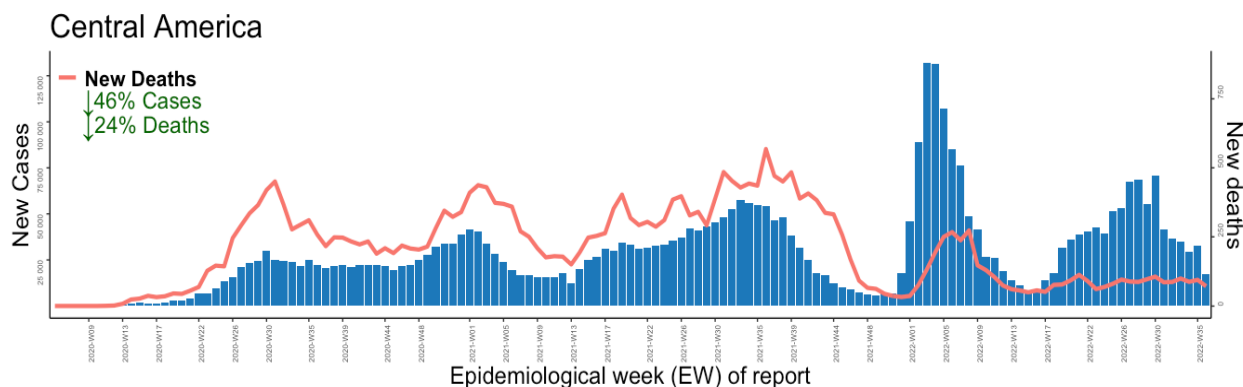
<sup>1</sup> The United States Centers for Disease Control and Prevention (CDC). Variant Proportions. Accessed 13 September 2022. Available at: <https://bit.ly/3Obz8cT>

<sup>2</sup> Public Health Agency of Canada (PHAC). COVID-19 Epidemiological Update. Accessed 13 September 2022. Available at: <https://bit.ly/3bbFRFR>

## Central America

In Central America, COVID-19 incidence for the sub-region has decreased by 46.4% during EW 36 compared to the previous week with 17,405 new cases reported (**Figure 4**).

**Figure 4:** COVID-19 cases and deaths by epidemiological week (EW). **Central America. Region of the Americas.** EW 6, 2020 - EW 36, 2022.



During EW 36, all countries and territories in the subregion reported a decline in **weekly cases** (range: -70.5 - -8.4% decrease), while Nicaragua reported a 100% increase in cases (59 new cases) during EW 36 compared to the previous week. Please note that the percent change in cases of Nicaragua is a result of data artifact since no cases had been reported during EW 35. The countries with the largest decline in cases during EW 36 included Honduras (232 new cases, -70.5% decrease), Belize (102 new cases, -37.4% decrease), and Panama (2,412 new cases, -33.8% decrease) compared to the previous week.

For the same period, **weekly deaths** have decreased by approximately -24.3% relative to the previous week (**Figure 4**) with all countries and territories in the subregion reporting a decrease in deaths (range: -30 – -15.5% decrease). Four countries in the subregion reported deaths during EW 36, with the highest proportion of weekly deaths being observed in Guatemala (98 new deaths, -15.5% decrease), Costa Rica (26 new deaths, -16.1% decrease), Panama (7 new deaths, 30% decrease), and El Salvador (3 new deaths, -25% decrease).

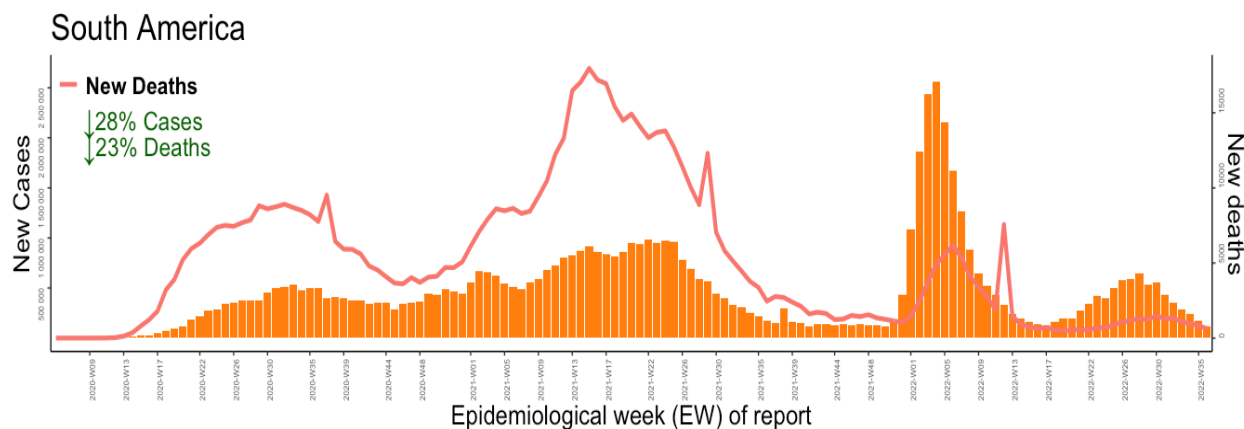
Among four countries and territories with available data in the Central American sub-region, three countries reported a decline in their weekly hospitalizations – Panama (98 hospitalizations, -14.8% decrease), Costa Rica (248 hospitalizations, -16.5% decrease), and Honduras (37 hospitalizations, -17.8% decrease), and one country – Belize – did not report any substantial changes in hospitalizations during EW 36 compared to the previous week. With regards to **ICU admissions**, all three countries with data available for weekly COVID-19 ICU admissions reported a decline during EW 36 (range: -14 - -7.1% decrease) compared to the previous week.

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

## South America

In South America, **COVID-19 incidence** has decreased for the sixth consecutive week, with a total of 121,122 new COVID-19 cases being reported during EW 36 – a -28.4% decrease 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 36, 2022.



Out of the 10 countries and territories the sub-region, one experienced an increase in cases during EW 36 – Venezuela (Bolivarian Republic of) (890 new cases, 33.8% increase) – while remaining nine countries and territories reported a decline (range: -53.1 - -18.1% decrease) during EW 36 compared to the previous week with the largest decline in cases being reported by Colombia (1,508 new cases, -53.1% decrease), followed by Ecuador (1,417 new cases, -51.6% decrease), and Bolivia (Plurinational State of) (2,256 new cases, -50.1% decrease).

During EW 36, **COVID-19 weekly deaths** in the subregion have declined for the fourth consecutive week, with a total of 1185 COVID-19 deaths being reported in South America – a -23.4% decrease compared to the previous week. The largest decline in deaths were reported by Colombia (62 new deaths, -51.2% decrease), followed by Ecuador (16 new deaths, -46.7% decrease), and Brazil (551 new deaths, -36.3% decrease). On the other hand, four countries reported an increase in weekly deaths during EW 36 - Venezuela (Bolivarian Republic of) (8 deaths, 166.7% increase), Paraguay (36 deaths, 125% increase).

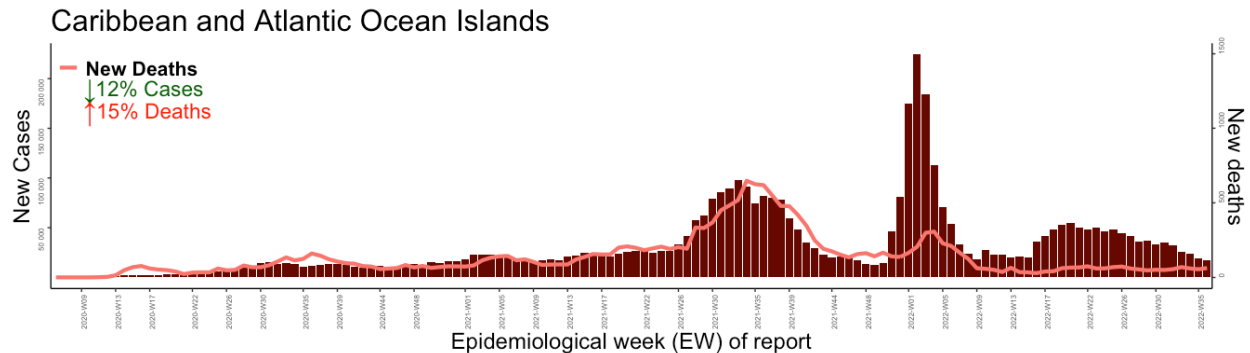
For the same period, all five countries and territories in the subregion with data available for **COVID-19 weekly hospitalizations** reported a decline in weekly hospitalizations (range: -16.3 - -0.6% decrease) relative to the previous week. Similarly, among six countries and territories with data available for **COVID-19 ICU admissions** in this subregion, one country – Uruguay – reported an increase in ICU admissions (n=25; 19% increase) while the remaining five reported a decline during EW 36 compared to the previous week (range: -19.9 - -2.7% decrease).

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

In the Caribbean and Atlantic Ocean Islands sub-region, **weekly cases** decreased by -11.7% and (**Figure 6**). At the national level, cases increased in seven countries and territories in the subregion (range: 5.7% - 200%) while they either declined in 19 countries and territories (range: -100% - -13.8%). The remaining nine countries did not report any changes in cases during EW 36 compared to the previous week.

**Figure 6: COVID-19 cases and deaths by epidemiological week (EW). Caribbean and Atlantic Ocean Islands. Region of the Americas. EW 6, 2020 - EW 36, 2022.**



During EW 36, there was a 14.7% increase (117 deaths) in **COVID-19 weekly deaths** in the subregion – primarily due to deaths reported from Barbados (12 deaths, 71.4% increase) and Jamaica (21 deaths, 75% increase). However, reported weekly deaths from the two countries include historical deaths that the respective ministries of health published retroactively – Jamaica (May 2021 to September 2022) and Barbados (August to September 2022). Overall, eight countries and territories in the subregion observed a relative increase in their weekly deaths in EW 36 compared to the previous week (range: 71.4 – 120% increase). Weekly deaths either remained the same (n=20, 0% change) or declined in six countries and territories of the subregion (range: -100 – -15.6%).

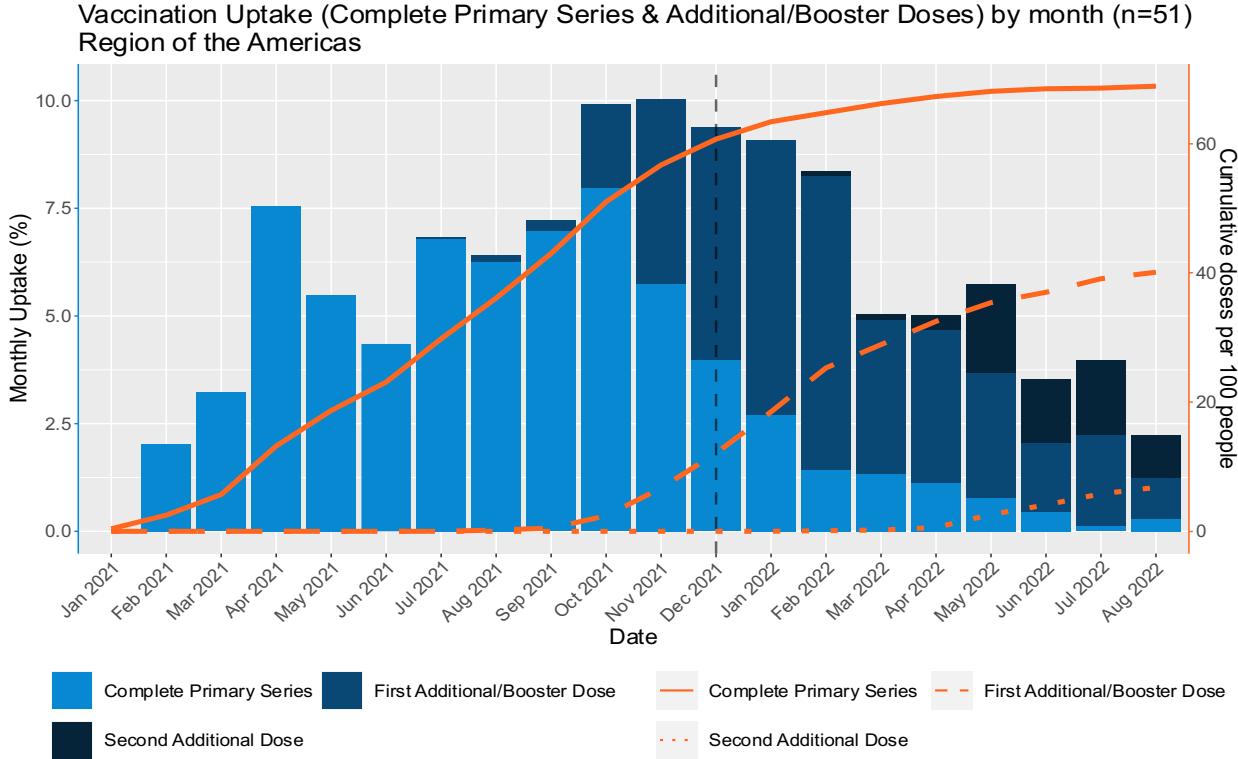
Among 19 countries and territories with available data, four countries and territories reported an increase in their weekly **COVID-19 hospitalizations** (range: 14 – 133% increase), with the highest relative increase being reported from Grenada (7 hospitalizations, 133% increase) and the Dominican Republic (50 hospitalizations, 78.6% increase). Among 13 countries and territories with data available, **COVID-19 ICU admissions** increased in four countries and territories, with the highest relative increase being reported from Martinique (5 ICU admissions, 150% increase) and Guadeloupe (9 ICU admissions, 50% increase) during EW 36 compared to the previous week.

Notable increases in weekly cases in the subregion during EW 36 were reported from Saba (9 new cases, 200% increase), Saint Vincent and the Grenadines (16 new cases, 100% increase), and Montserrat (86 new cases, 34.4% increase).

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

# Immunization

**Figure 7.** Vaccination Update (Complete Primary Series and Additional/Booster Doses) by month. The region of the Americas. Between January 2021 and August 2022. As of EW 36, 2022.



COVID-19 vaccination data for the Americas shows that monthly uptake for the complete primary series (i.e., at least two doses of any COVID-19 vaccine) decreased from 4% in December 2021 to below 2% in February 2022. This trend reached levels below 1% in May 2022 and continue to decline. During August 2022, the first slight increase in complete primary series uptake was observed since October 2021. However, the actual value is still appreciably low, at 0.3%. This stands in stark contrast to 2021, where complete primary series uptake averaged 5%. The 2022 average (up to August) is 1%.

Please note that:

- Fewer countries/territories transmit their COVID-19 vaccination data to PAHO every week. In December 2021, a maximum of 45 countries/territories reported vaccination data, while this number fell to a minimum of 32 in September 2022. In turn, this affects the observed vaccination coverage rate, possibly underestimating it since countries/territories may be vaccinating their population but not reporting the latest figures to PAHO.
- Vaccination coverage and uptake is 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.

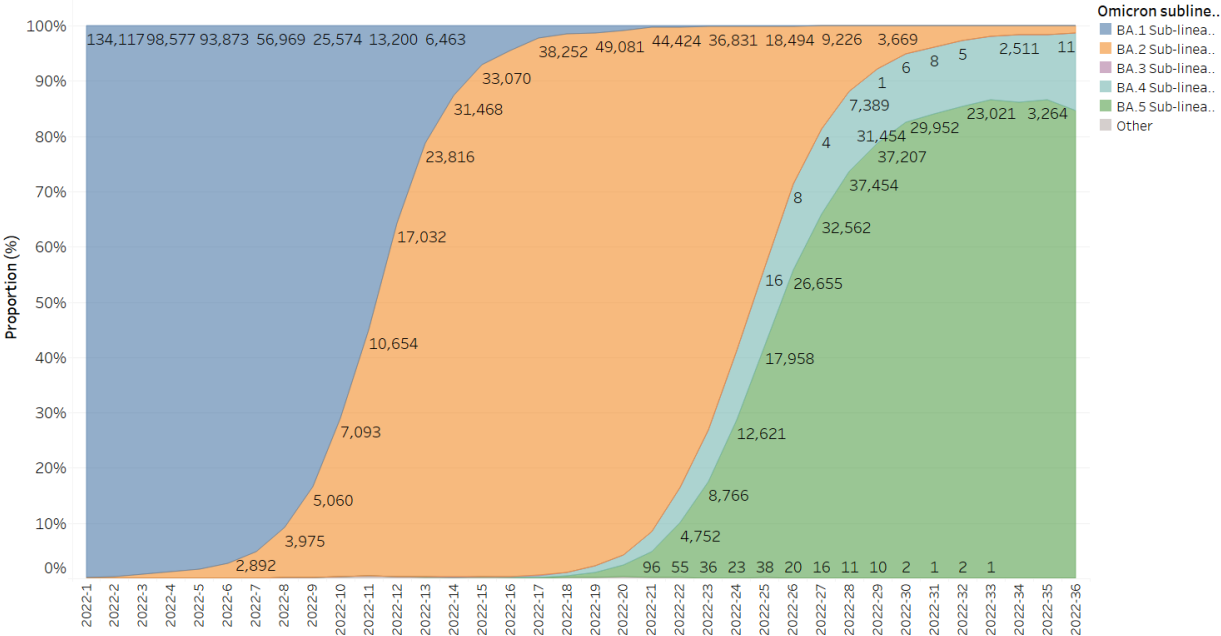
# Genomic surveillance

Through PAHO's Genomic Surveillance Regional Network and the work from the Member States, 441,851 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 13 September 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, and few other lineages are currently detected in the Region. 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 BH.x. Important to notice, there is not (so far) sufficient evidence to infer increased severity or phenotypic impact in either of the sublineages, besides the already established for Omicron.

The cumulative proportion of sequences collected in the Americas from November 2021 to date are: 52.5% of BA.1 (and BA.1 sublineages), 28.1% of BA.2 (and sublineages), 0.01% of BA.3 (and sublineages), 3.5% of BA.4 (and BA.4 sublineages), and 15.8% BA.5 (and BA.5 sublineages). Although BA.1 accounts for the majority of cumulative sequences, BA.2 became predominant in all subregions between weeks 12 and 15 of 2022, and BA.4 and BA.5 became predominant between weeks 25 and 34 (**Figure 8**). The proportion of BA.4 and in particular BA.5 continues to increase throughout the Region. Notably, in the past four weeks, the BA.4 and BA.5 combined represent 98.3%, 97.8%, 99.6%, and 94.4% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively.

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



Source: GISAID

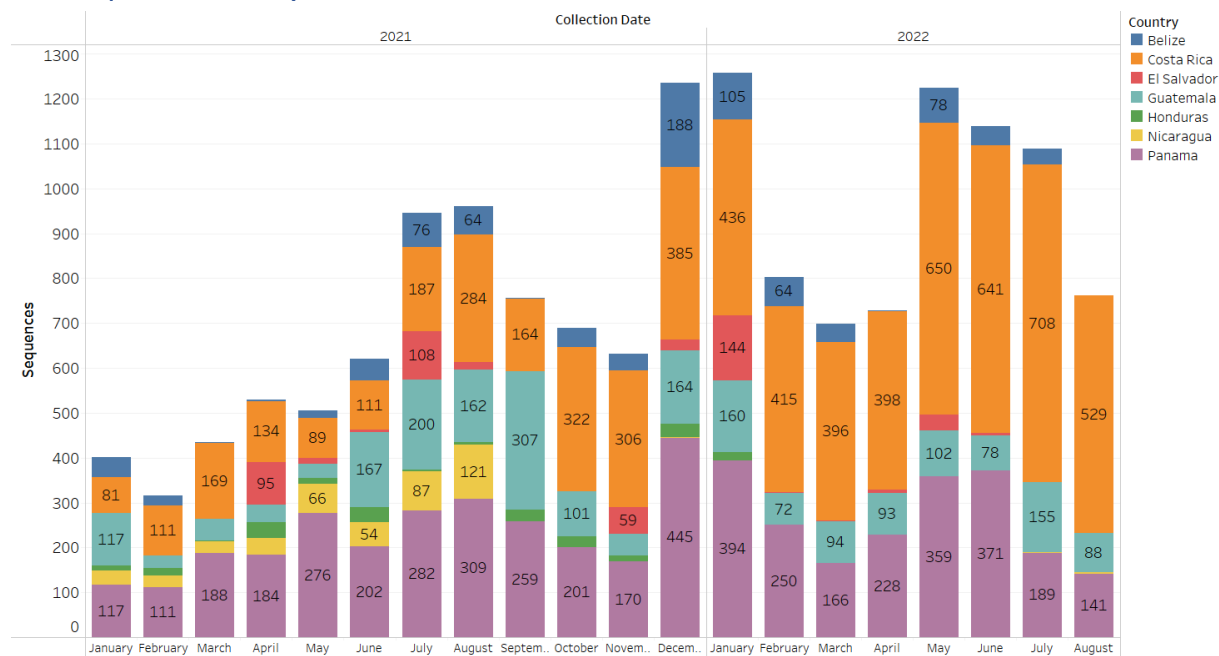


## Spotlight: Sequencing and genomic surveillance in Central America

During the last 19 months (January 2021 to 10 September 2022), 15,704 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 22 weeks (**Figure 10**). Since Omicron’s first detection, BA.1 and BA.1 sublineages represent the majority (40.4%) of cumulative sequences, while BA.2 and BA.2 sublineages represent 34.3% of the cumulative sequences, and BA.3, BA.4, and BA.5 (with their respective sublineages) represent 0.2%, 7.9%, and 17.2% of cumulative sequences, respectively (**Figure 11**). However, BA.1 was progressively replaced by BA.2 in weeks 10 to 19, and the proportion of BA.4 and BA.5 have been increasing since week 19 (**Figure 12**). When focusing on the past four weeks (14 August to 10 September), BA.5 is the predominant sublineage (76.4%) while BA.2 and BA.4 account for 0.5% and 23.2% of the sequences, respectively. It is important to note that the majority of sequences for the 4-week period was contributed by Costa Rica.

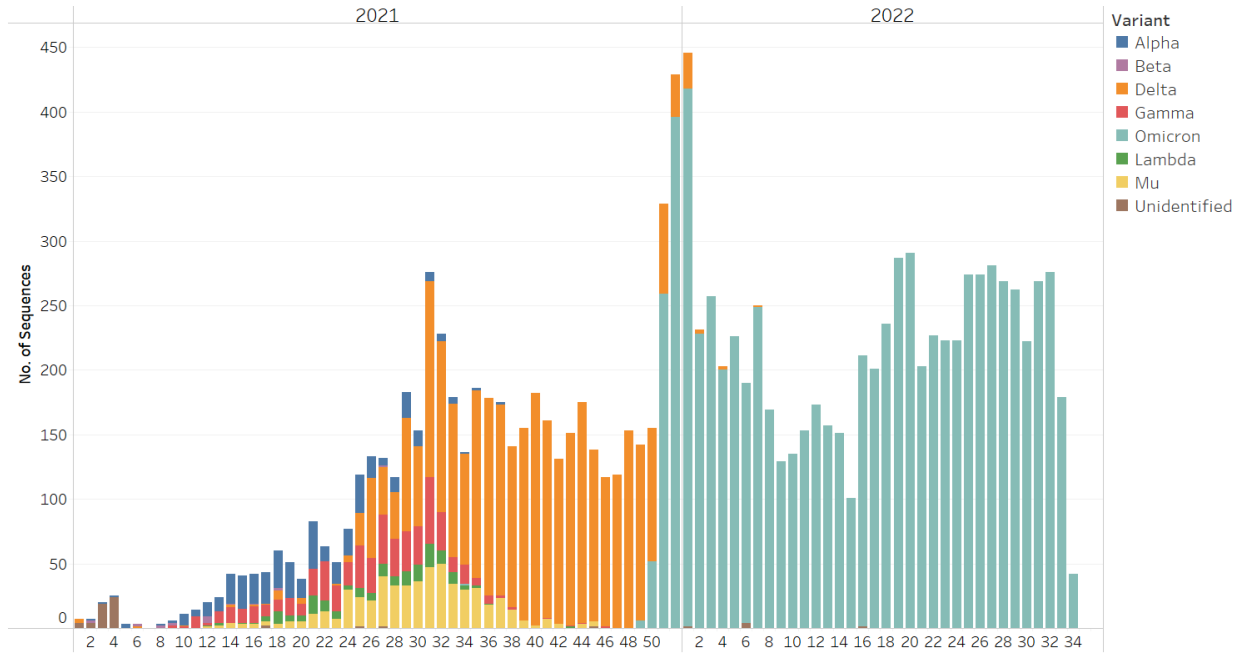
**It is important that all countries at PAHO region continue the collection of representative samples for sequencing and to maintain COVID-19 appropriate genomic surveillance.**

Figure 9. Number of sequences generated monthly by countries in Central America (January 2021-September 2022)



Source: GISAID

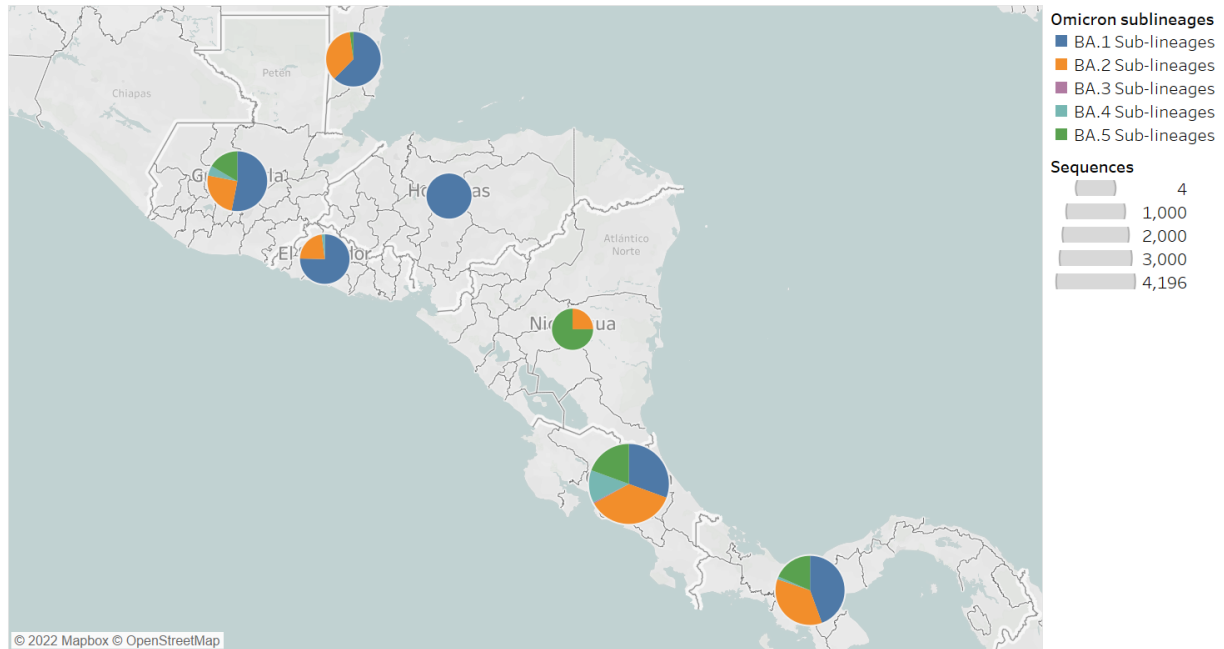
**Figure 10.** Variants detected and reported by the Countries in Central America (January 2021-September 2022)



Source: GISAID

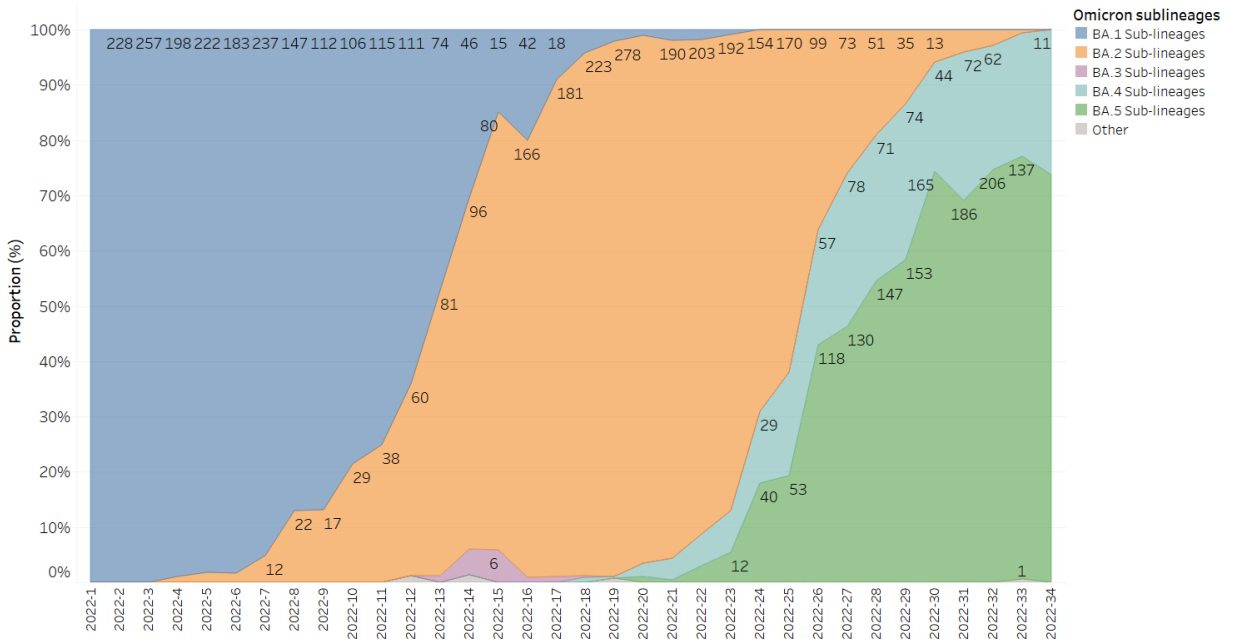
Country-specific data is available at: [https://ais.paho.org/phil/viz/SARS\\_CoV2\\_variants\\_regional.asp](https://ais.paho.org/phil/viz/SARS_CoV2_variants_regional.asp)

**Figure 11.** Distribution of Omicron sublineages identified by the countries in Central America (November 2021-September 2022)



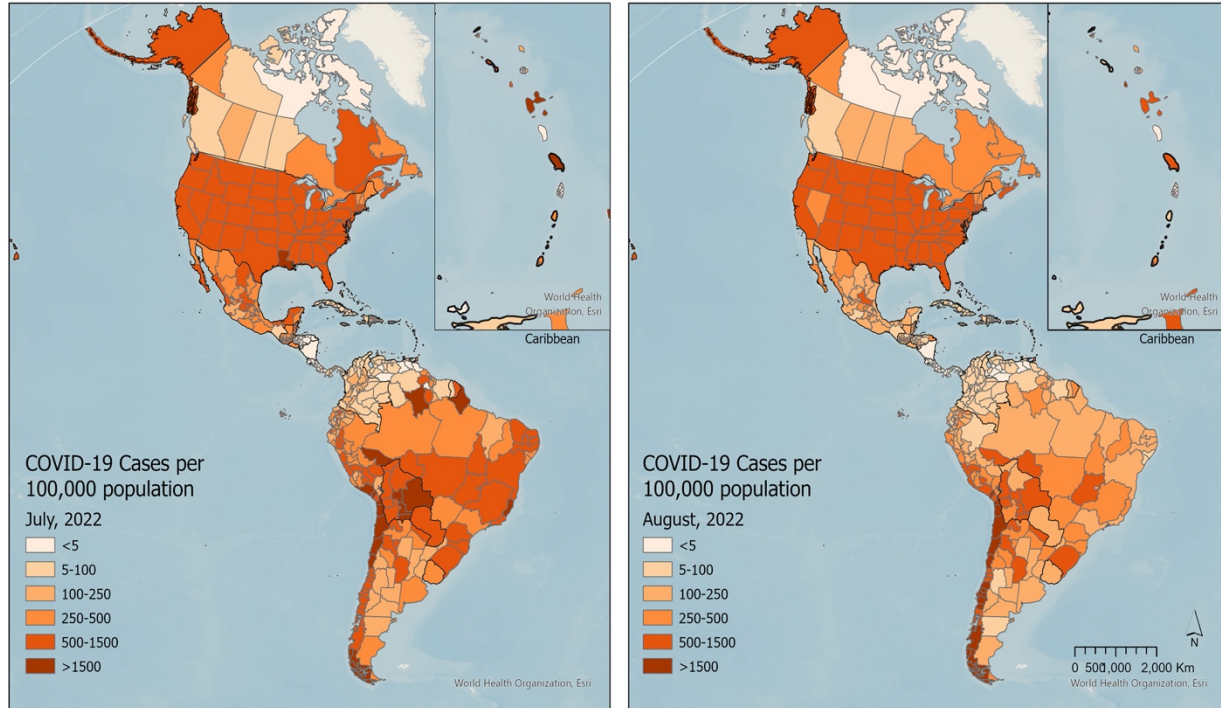
Source: GISAID

**Figure 12.** Distribution of VOC Omicron sublineages identified by the countries in Central America (January - September 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 September 2022.



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The maps (**Annex 1**) compare the COVID-19 case incidence per 100,000 population in the region of the Americas in the months of July and August 2022.

Overall, there was a decrease in incidence in the region in August, with most countries/territories reporting between 100 and 250 cases per 100,000 people.

Countries with the highest number of new cases in August were the US, Brazil, Chile, Peru, and Mexico. The highest case incidence rate, however, was observed in some Caribbean islands (Barbados, Puerto Rico, Montserrat, Anguilla, and the Cayman Islands), followed by Chile. The largest relative increase in incidence compared to July 2022 was observed in Chile, seen in almost of its territories, followed by Trinidad and Tobago, Montserrat, Cuba, and the United States Virgin Islands.

\* Data adjustments in case numbers in departments of Bolivia may have resulted in an artificial peak in the month of July.