Weekly COVID-19 Epidemiological Update - Region of the Americas

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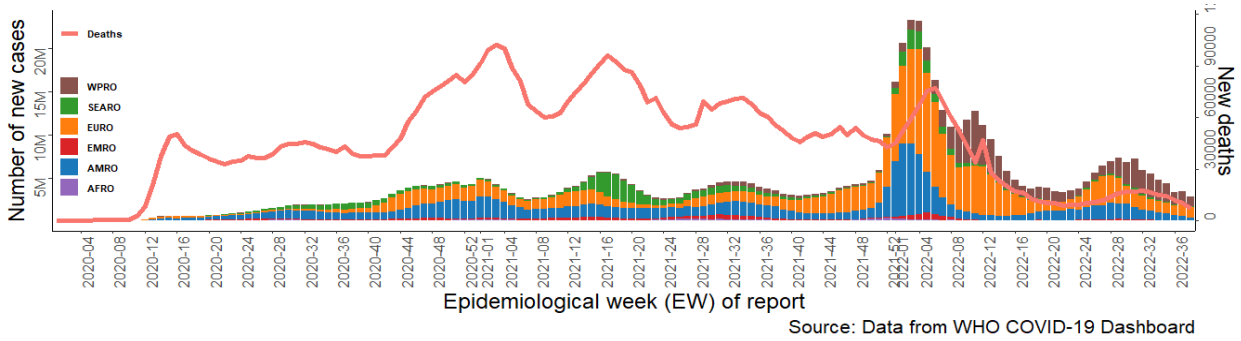
Contents:

Executive Summary

- **Since the onset of the pandemic** in 2020 and up to September 27, 2022, a cumulative total of 612 million COVID-19 cases including 6.5 million deaths were reported from all six WHO regions. During the epidemiological week (EW) 38, COVID-19 cases decreased in all WHO regions (range: -33%, -7.8% decrease) except one region – EURO (4.7%), and COVID-19 deaths also decreased in all six regions (range: -33.9% - -3% decrease).
- **Globally,** approximately 3,085,598 new COVID-19 cases were reported in EW 38 (September 18, 2022 - September 24, 2022) - a -9% decrease compared to EW 37 (September 11, 2022 - September 17, 2022) (**Figure 1**). For the same period, 8,997 new COVID-19 deaths were reported globally – a -16.7% relative decrease compared the previous week.
- **In the region of the Americas,** 486,224 cases and 3,751 deaths were reported in EW 38 - a -14.4% decrease in cases and -12.2% decrease in deaths compared to the previous week.
- At the subregional level, COVID-19 cases decreased in all four subregions (range: -55.2% - -3.7% decrease). Deaths increased in two subregions - Central America (48.4%) and Caribbean and Atlantic Ocean Islands (3.9%) – and decreased in the remaining two subregions – South America (-14.7%) and North America (-13%) – compared to the previous week.
- The overall weekly case notification rate for the region of the Americas was 47.5 cases per 100,000 population during EW 38 (55.6 the previous week). Between EW 38 and 37, the 14-day COVID-19 death rate was 7.8 deaths per 1 million population (8.4 the previous two weeks).
- Among 29 countries/territories in the region with available data, **COVID-19 hospitalizations** increased in 6 countries and territories (range: 5.6% - 123.2%) during EW 38 compared to the previous week. Among 21 countries and territories with available data, COVID-19 **ICU admissions** increased in 5 countries and territories (range: 10% - 100%).

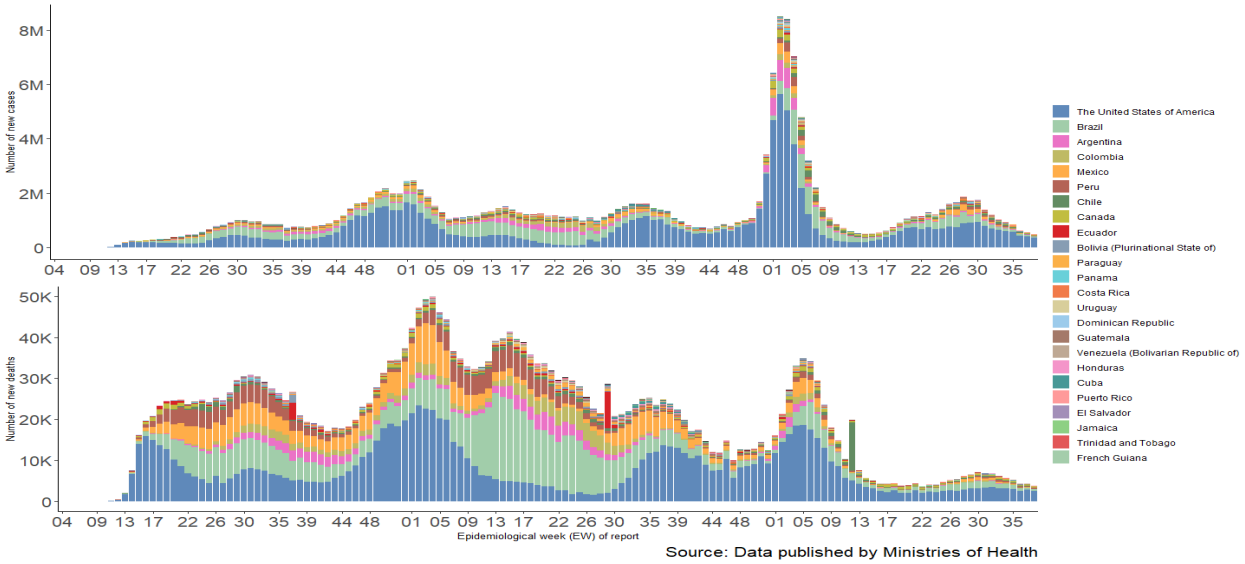
Figure 1: COVID-19 cases and deaths by epidemiological week (EW) of report and WHO region. EW 4, 2020 - EW 38, 2022.



Source: Data from WHO COVID-19 Dashboard

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 - 38, 2022.



Source: Data published by Ministries of Health

During EW 38, 486,224 new **COVID-19 cases** were reported in the region of the Americas - a relative decrease of -14.4% compared to previous week **(Figure 2)**. The highest number of COVID-19 cases in the last week was reported in the North American subregion (384,765 cases, -11.3% decrease) **(Table 1)**. During EW 38, the highest proportion of weekly COVID-19 cases was reported by The United States of America (361,599 new cases, -11.5% decrease), Brazil (45,342 new cases, -27.3% decrease), Chile (19,860 new cases, -16.7% decrease).

Table 1: Weekly change (%) in cases and deaths between EW 37 and EW 38 by subregion. Region of the Americas

Subregion	Total Cases	Total Deaths	Cases EW 37	Deaths EW 37	Cases EW 38	Deaths EW 38	% Change Cases	% Change Deaths
Caribbean and Atlantic Ocean Islands	4,212,331	35,015	14,348	77	6,435	80	-55.2%	3.9%
Central America	3,962,724	53,378	12,643	64	12,181	95	-3.7%	48.4%
North America	106,011,446	1,422,698	433,691	3,117	384,765	2,713	-11.3%	-13.0%
South America	63,757,405	1,326,011	107,559	1,012	82,843	863	-23.0%	-14.7%

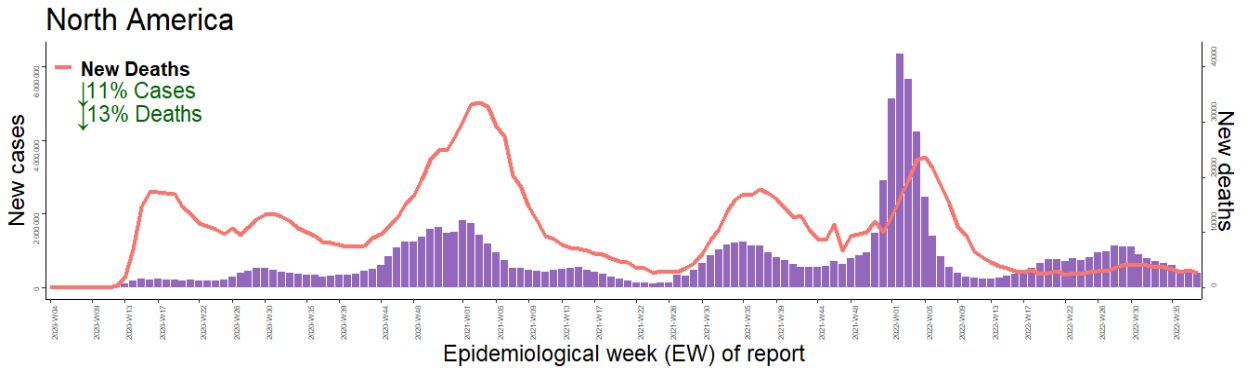
For the same period, 3,751 **COVID-19 deaths** were reported in the region of the Americas - a relative decrease of -12.2% compared to the previous week **(Figure 2)**. The subregion reporting the highest number of COVID-19 deaths in the last week was North America (2,713 deaths, -13% decrease) **(Table 1)**. At the national level, the highest proportion of weekly COVID-19 deaths were reported in the United States of America (2,484 new deaths, -11.2% decrease), Brazil (450 new deaths, -7.6% decrease), and Canada (195 new deaths, -22.3% decrease).

A summary of the COVID-19 trends for EW 38 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 384,765 new cases (-11.3% decrease) being reported during EW 38 as compared to the previous week. During EW 38, the largest decline in cases were reported by Mexico (5,840 cases, -14.2% decrease), followed by The United States of America (361,599 cases, -11.5% decrease), and Canada (17,326 cases, -6 % decrease).

Figure 3: COVID-19 cases and deaths by epidemiological week (EW). **North America.** Region of the Americas. EW 3, 2020 - EW 38, 2022.



For the same period, **weekly COVID-19 deaths** decreased in North America with a total of 2,484 new deaths (-13.0% decrease) being reported relative to the previous week. All three countries in the subregion reported a decline in weekly deaths – the largest decline in deaths was reported by Mexico (34 new deaths, -50% decrease), followed by Canada (195 new deaths, -22.3% decrease), and The United States of America (2,484 new deaths, -11.2% decrease).

During EW 38, 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=30,248, -7.7% decrease) and ICU admissions (n=3,661, -8.3% decrease). In the same period, Canada reported a -8.9% decline in weekly hospitalizations (n=4,360) and a -12.4% decrease in ICU admissions (n=234) during EW 38 compared to the previous week.

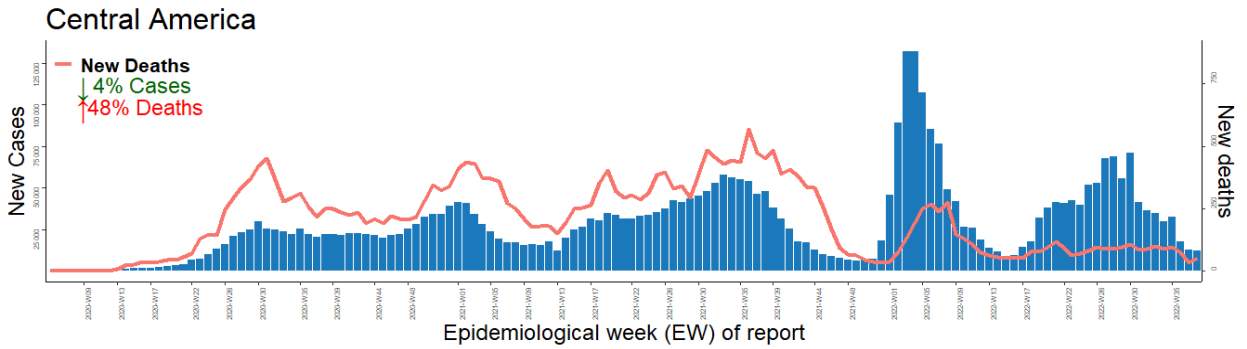
The Omicron **variant of concern** (VOC) sub-lineages of BA.4 and BA.5 are predominant in all three countries in the subregion, and there were no substantial changes in the proportions of the two sub-lineages compared to the previous week. The BA.5 and BA.4 sub-lineages made up about 83.1% and 13% of cases for the week ending on 24 September 2022 in the United States of America[1], 85.6% and 12.8% for the week of 4 September 2022 in Canada[2], and 91.53% and 6.78% as of EW 35 in Mexico, respectively.

[1] The United States Centers for Disease Control and Prevention (CDC). Variant Proportions. Accessed 27 September 2022. Available at: https://bit.ly/3Obz8cT
[2] Public Health Agency of Canada (PHAC). COVID-19 Epidemiological Update. Accessed 27 September 2022. 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 12,181 new cases reported during EW 38 – a -3.7% 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 38, 2022.



During EW 38, two countries experienced an increase in **weekly cases** - Guatemala (4,474 new cases, 16.8% increase) and Nicaragua (55 new cases, 100% increase) 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 37. The remaining five countries and territories reported a decline in cases except for El Salvador which had not reported any new cases between EW 36 and 38. The countries with the largest decline in cases during EW 38 included Belize (80 new cases, -65.4% decrease), Honduras (500 new cases, -39.4% decrease), and Panama (1,052 new cases, -33.4%).

For the same period, **weekly deaths** increased by approximately 48.4% relative to the previous week **(Figure 4).** Five of the seven countries and territories – Belize, Panama, Costa Rica, Guatemala, Nicaragua – reported an increase compared to the previous week (range: 24.3% – 133.3%). The remaining two countries reported a decrease in deaths – Honduras, 0 new deaths, -100% decrease – or no change in weekly reported deaths – El Salvador, 1 new death, 0% change.

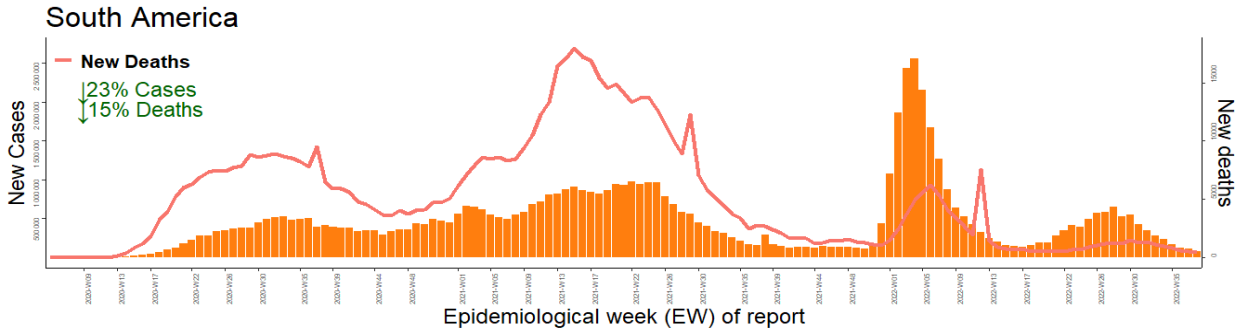
Among four countries and territories with available data in the Central American subregion, one country – Panama – reported an increase (82 hospitalizations, 9.3% increase) in **weekly hospitalizations** during EW 38 compared to the previous week, and three reported a decline – Honduras (22 hospitalizations, -56% decline), Belize (1 hospitalization, -50% decline) and Costa Rica (187 hospitalizations, -11.8% decline). Among three countries and territories with data available for **weekly COVID-19 ICU admissions**, two countries reported a decline compared to the previous week – Honduras (1 ICU admissions, -50% decline) and Costa Rica (31 ICU admissions, 18.4% decline) – and Panama did not present any change in weekly ICU admissions compared 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 eighth consecutive week, with a total of 82,843 new COVID-19 cases reported during EW 38 – a -23.0% 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 38, 2022.



Out of the 10 countries and territories in the subregion, one experienced an increase in **weekly new cases** during EW 38 – Peru (8,992 new cases, 16.7% increase). The remaining nine countries and territories reported a decline for the same period, with the largest decline in cases being reported by Paraguay (50 new cases, -75.4% decrease), followed by Ecuador (859 new cases, -71.3% decrease), and Venezuela (Bolivarian Republic of) (265 new cases, -46.6% decrease).

During EW 38, **COVID-19 weekly deaths** in the subregion have declined for the sixth consecutive week, with a total of 863 COVID-19 deaths being reported in South America – a -14.7% decrease compared to the previous week. Three countries reported an increase in weekly deaths – Argentina (42 new deaths, 68% increase), Venezuela (Bolivarian Republic of) (5 new deaths, 25% increase), and Uruguay (12 new deaths, 9.1% increase) – while the remaining nine countries and territories reported a decline during EW 37 compared to the previous week. The largest decline in deaths was reported by Ecuador (2 new deaths, -77.8% decrease), followed by Bolivia (Plurinational State of) (5 new deaths, -54.5% decrease), and Paraguay (19 new deaths, -44.1% decrease).

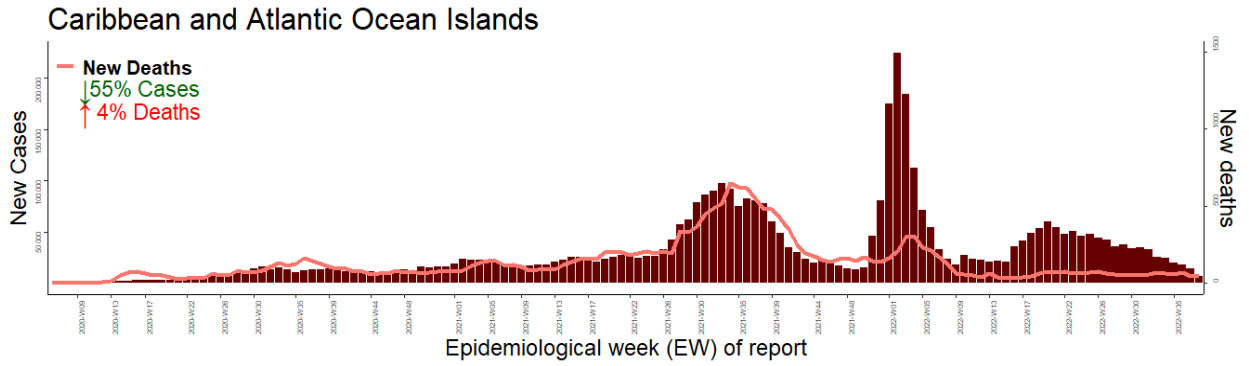
For the same period, among five countries and territories in the subregion with data available for **COVID-19 weekly hospitalizations**, three countries reported a decrease in weekly hospitalizations – Ecuador (80 hospitalizations, -71.1% decrease), Colombia (505 hospitalizations, -27.2% decrease), and Venezuela (Bolivarian Republic of) (142 hospitalizations, -17% decrease) – and the remaining three countries reported the same number of weekly hospitalizations during EW 38 compared to the previous week. One of the six countries and territories with data available for **COVID-19 ICU admissions** reported an increase – Colombia (99 ICU admissions, 10% increase) compared to the previous week, while the remaining countries reported either a decline (n=4, range: -47.6% - -2.8% decrease) or no changes (n=1).

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 for the seventh consecutive week – a decrease of -55.2% in weekly cases observed during EW 38 compared to the previous week **(Figure 6)**. At the national level, cases increased in 8 out of the 34 countries and territories in the subregion (range: 19.3% - 138.2%) while it declined in 18 countries and territories (range: -100% - -10%).

Figure 6: COVID-19 cases and deaths by epidemiological week (EW). **Caribbean and Atlantic Ocean Islands.** Region of the Americas. EW 6, 2020 - EW 38, 2022.



During EW 38, **COVID-19 weekly deaths** increased by 3.9% (80 deaths) compared to the previous week in the Caribbean and Atlantic Ocean Islands subregion. Seven countries and territories in the subregion observed a relative increase (range: 7.9 – 128.6% increase) in their weekly deaths compared to the previous week. Weekly deaths either remained the same (n=21, 0% change) or declined in the remaining eight countries and territories of the subregion (range: -100% – -38.9%) during EW 38 compared to the previous week.

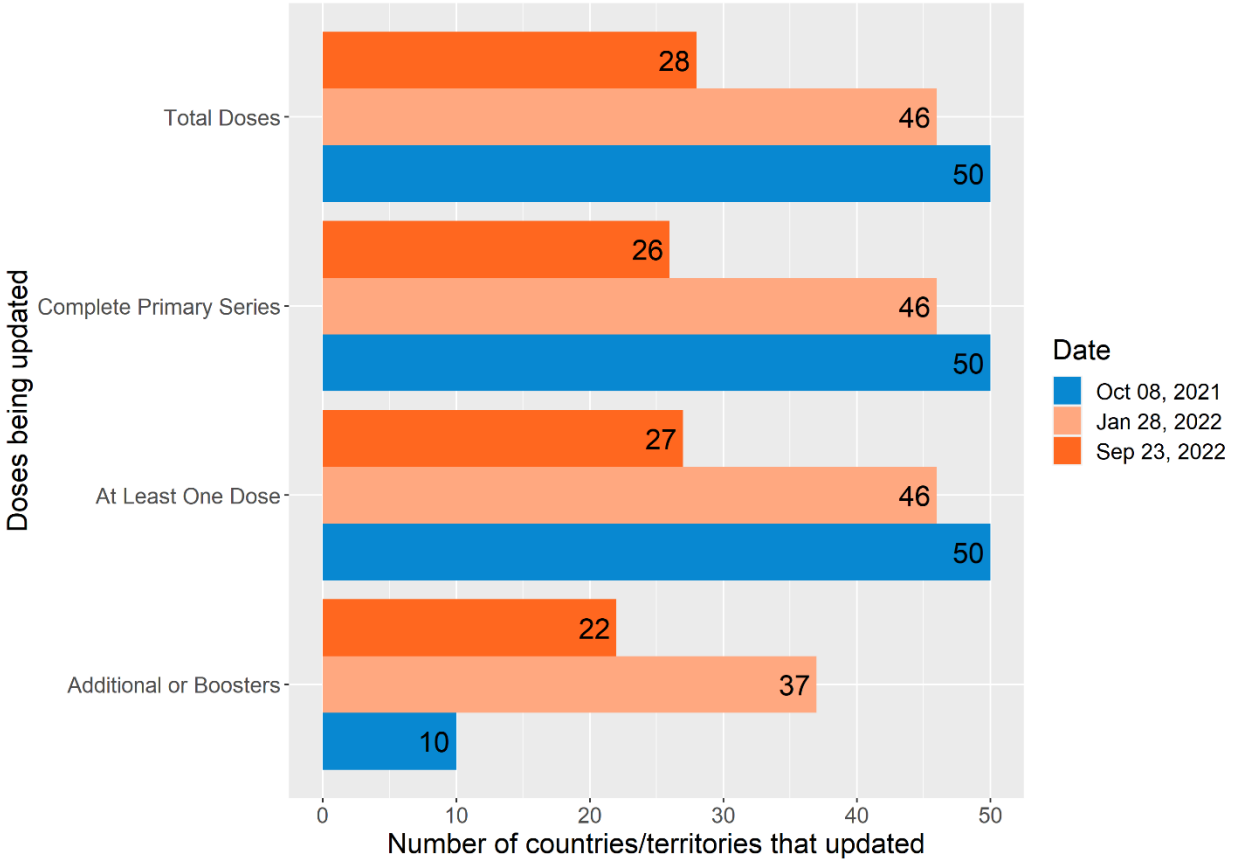
Among 19 countries and territories with available data for **weekly COVID-19 hospitalizations**, five countries and territories in the subregion reported an increase in hospitalizations – British Virgin Islands (2 hospitalizations, 100% increase), United States Virgin Island (11 hospitalizations, 22.2% increase), French Guiana (7 hospitalizations, 16.7% increase), Jamaica (102 hospitalizations, 8.5% increase), and the Bahamas (19 hospitalizations, 5.6% increase). The remaining countries and territories observed either no changes (n=6) or a decline (n=8, range: -100 - -3.3% decrease). Similarly, among 11 countries and territories with data available, three observed an increase in **COVID-19 ICU admissions** (n=3, range: 33.3% – 100% increase) while five reported a decline (range: -100% - -6.8% decrease) and three reported no changes during EW 38 compared to the previous week.

Notable increases in weekly cases in the subregion during EW 38 were reported from Antigua and Barbuda (81 new cases, 138.2% increase), Bahamas (96 new cases, 68.4% increase), and Guyana (68 new cases, 19.3% increase).

To date, Omicron lineages BA.4 and BA.5 have been reported from 19 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. Number of countries or territories providing updated COVID-19 vaccination data to PAHO



The decline in the number of countries/territories that report COVID-19 vaccination data to PAHO (either directly or via national public dashboards) is reported in **Figure 7**. Between October 2021 and September 2022*, the number of countries/territories that report the total number of doses administered fell from 50 (out of 51) to 28. The same trend is visible when considering the indicators "Complete Primary Series" and "At Least One Dose". This decline has been constant since the last week of January 2022. Of note, from October 2021 to January 2022, there has been an increase in the number of countries/territories that report additional or booster doses. This is mostly due to the fact that COVID-19 vaccine demand in most countries now focuses almost exclusively on booster doses.

* Reported data correspond to single epidemiological weeks. The date of 8 October 2021 was selected as an initial comparison point, since it was the week when the highest number of countries/territories reported their vaccination data

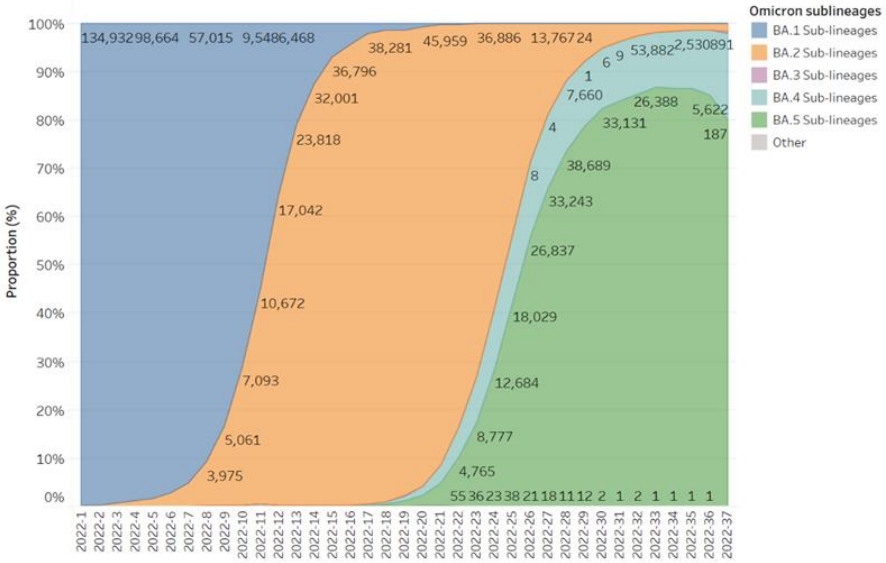
Genomic surveillance

Through PAHO's Genomic Surveillance Regional Network and the work from the Member States, 454,773 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 27 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. In the past two months, only five non-Omicron sequences have been detected, all of which correspond to Delta VOC in North America.

Omicron comprises the BA.1 to BA.5 sublineages (or subvariants), which are also subdivided into diverse sublineages based on additional mutations that slightly change the genomic profile but not enough to define a new Variant. These sublineages of BA.1 to BA.5 include those denominated as BC.x to BH.x. The cumulative proportion of Omicron sequences collected in the Americas from November 2021 to date are: 51.2% of BA.1 (and BA.1 sublineages), 27.7% of BA.2 (and sublineages), 0.01% of BA.3 (and sublineages), 3.8% of BA.4 (and BA.4 sublineages), and 17.3% 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 98.7%, 96.6%, 100%, and 95.7% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively. Recent increases in the proportion of BA.2.75 in North America and of BA.4.6 in all subregions have been noted. However, 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.

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



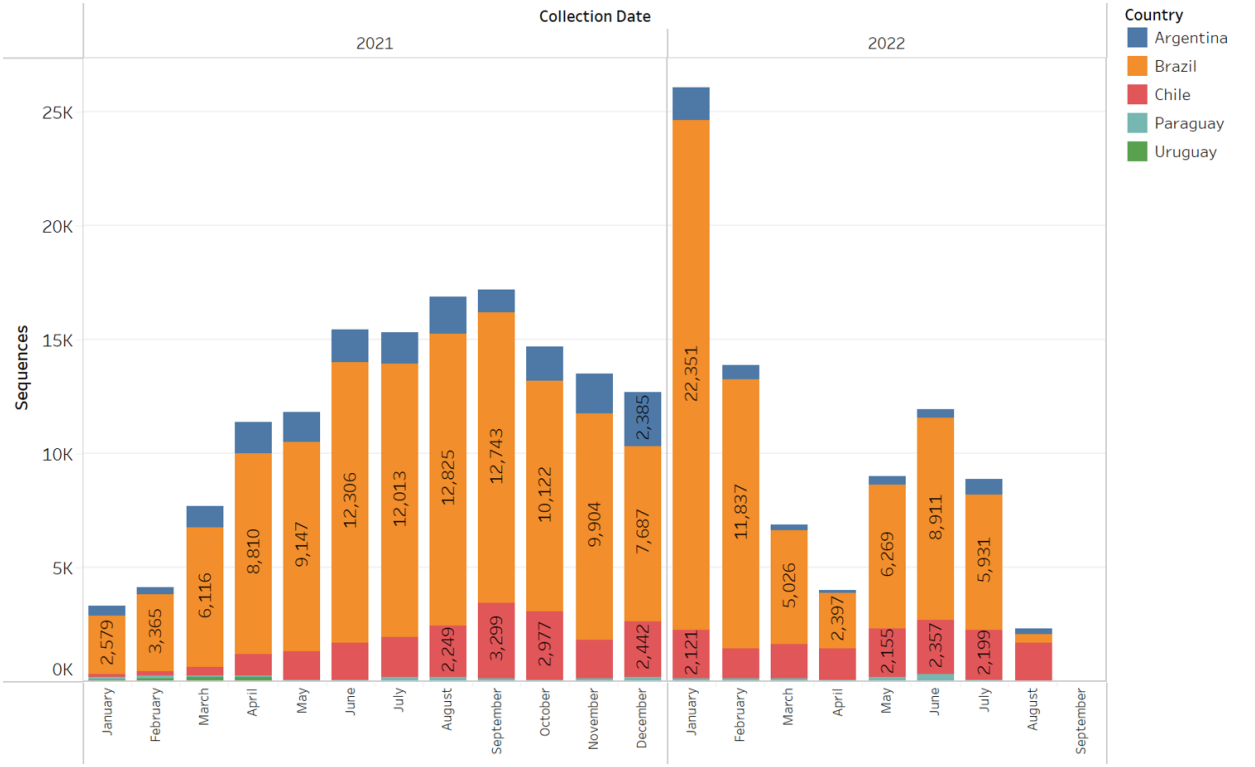
Source: GISAID

Spotlight: Sequencing and genomic surveillance in the Southern Cone

During the last 21 months (January 2021 to 20 September 2022), 226,467 whole genome sequences from the Southern Cone countries (Argentina, Brazil, Chile, Paraguay, and Uruguay) have been generated as part of the genomic surveillance systems (**Figure 9**). As in other subregions, Omicron is vastly predominant and there have been no "previously circulating" VOC/VOI detected in the past 12 weeks (**Figure 10**). Since Omicron's first detection, BA.1 and BA.1 sublineages represent the majority (59.7%) of cumulative sequences, while BA.2 and BA.2 sublineages represent 19.5% of the cumulative sequences, and BA.3, BA.4, and BA.5 represent 0.01%, 7.4%, and 13.5% of cumulative sequences, respectively (**Figure 11**). However, BA.1 was progressively replaced by BA.2 in weeks 12 to 18, and BA.2 is being replaced by BA.4 and BA.5 since week 22 (**Figure 12**). When focusing on the past four weeks, BA.5 is the predominant sublineage (68.3%) while BA.4 and BA.2 account for 25.4% and 4.9% of the sequences, respectively. In the same period, BA.1 and BA.3 were not identified in any of the sequences. It is important to note that the majority of sequences for the 4-week period was contributed by Chile (71%).

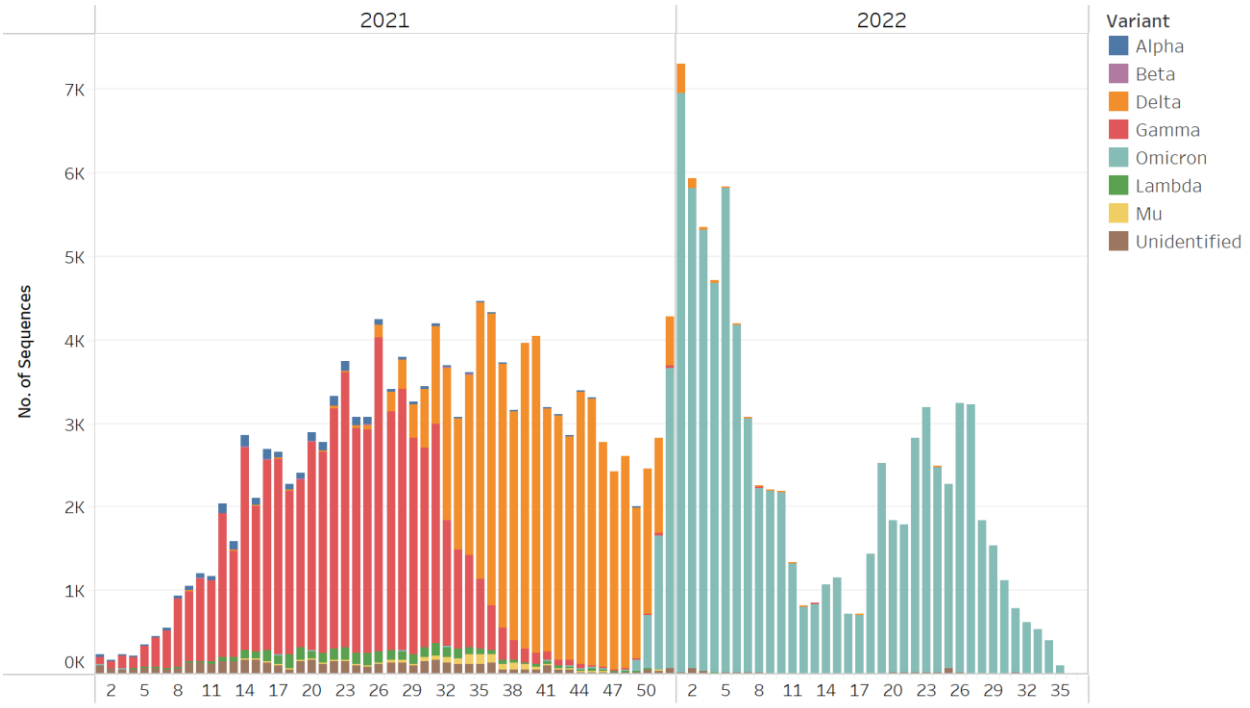
It is important that all countries at PAHO region continue the collection of representative samples for sequencing and to maintain COVID-19 appropriate genomic surveillance.

Figure 9. Number of sequences generated monthly by countries in the Southern Cone (January 2021- September 2022)



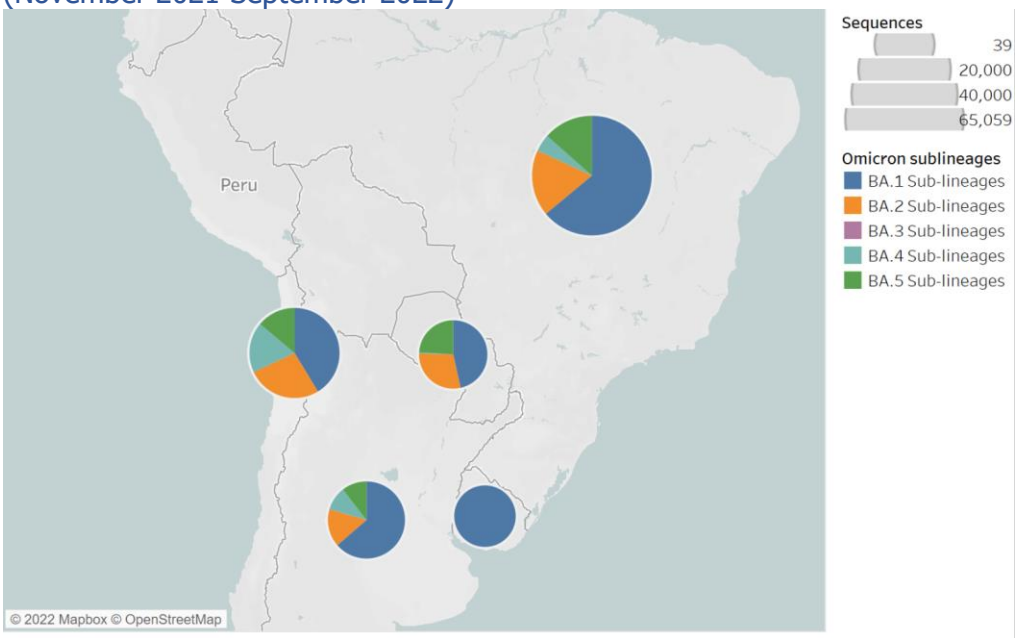
Source: GISAID

Figure 10. Variants detected and reported by the countries in the Southern Cone (January 2021-September 2022)



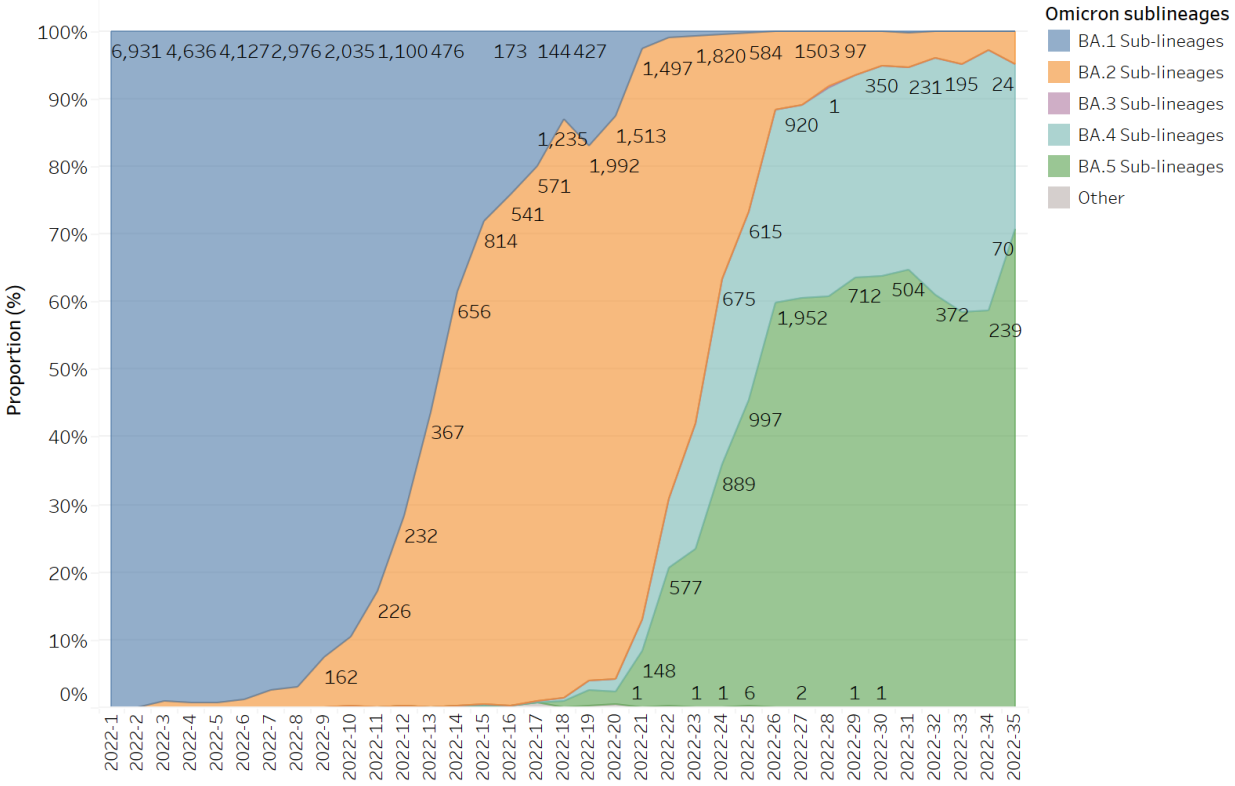
Source: GISAID
Country-specific data is available at: https://ais.paho.org/phip/viz/SARS_CoV2_variants_regional.asp

Figure 11. Distribution of Omicron sublineages identified by the countries in the Southern Cone (November 2021-September 2022)



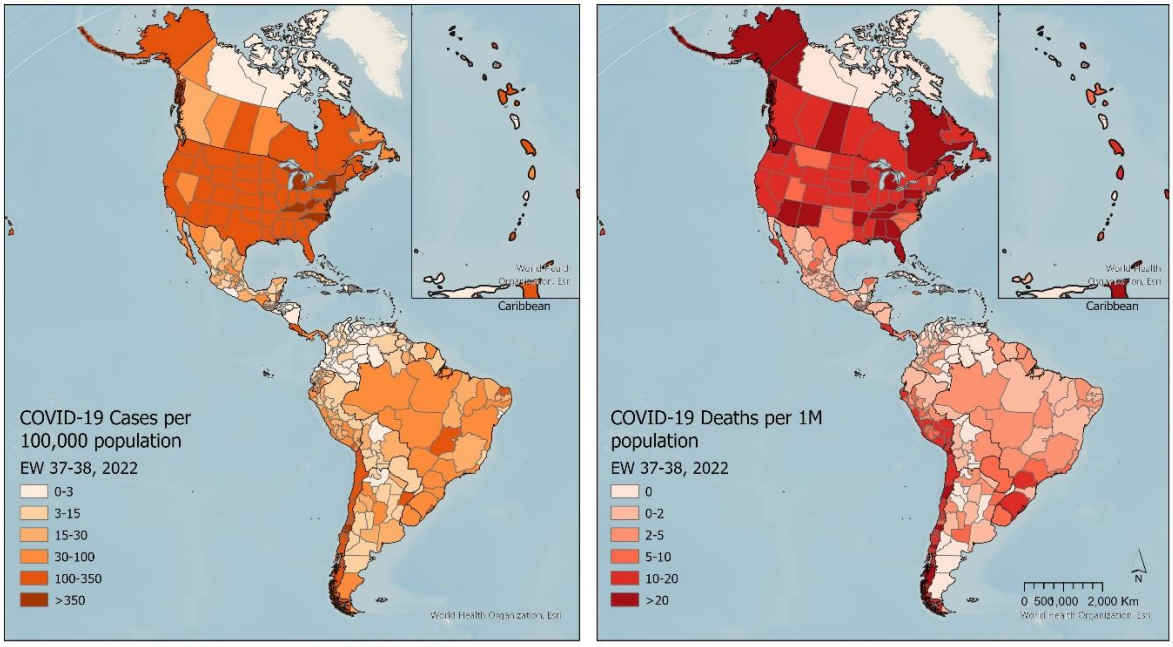
Source: GISAID

Figure 12. Distribution of VOC Omicron sublineages identified by the countries in the Southern Cone subregion (January-September 2022)



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 37 and 38, 2022.



The 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 37 and 38, 2022. At the regional and sub-regional levels, incidence and mortality continue to follow the decreasing trend that begun close to two months ago.

At the sub-regional level, the greatest decline in both incidence and mortality compared to the previous two weeks was observed in the Caribbean Sub-Region. Even if the sub-region as a whole reported a decline in incidence, some individual Caribbean countries reported slight increases in incidence such as Bermuda, the Bahamas, Grenada, Saint Martin, Saint Barthélemy, Guadeloupe and Antigua and Barbuda.

Countries/territories reporting highest incidence rates (>350 cases per 100,000) for the last two weeks were the United States (mostly mid-west states), Puerto Rico, and Chile. Regarding mortality, highest rates for the last two weeks (>20 deaths per 100,000) were observed in Canada, the United States, Peru, Chile, Guatemala and Trinidad and Tobago. In North America, mortality rates were relatively stable compared to the previous two weeks in Canada while they declined further in the United States and Mexico. In Central America, an increase in mortality rates was noted in Costa Rica compared to the previous two weeks. Most countries in the Caribbean reported below 10 deaths per million people, except for Martinique, Saint Lucia, Barbados, Puerto Rico, the U.S. Virgin Islands, the Bahamas and Trinidad and Tobago. In South America, increases in mortality were observed in Uruguay, and rates remained above 10 deaths per million people for most of Chile and Peru's regions and territories.