

Weekly COVID-19 Epidemiological Update - Region of the Americas

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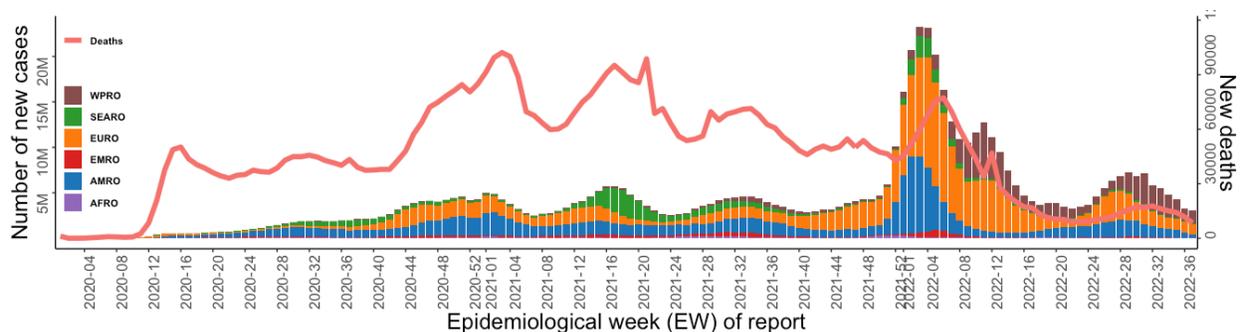
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Executive Summary

- **Since the onset of the pandemic** in 2020 and up to September 20, 2022, a cumulative total of 609 million COVID-19 cases including 6.5 million deaths were reported from all six WHO regions. During the epidemiological week (EW) 37, COVID-19 cases decreased in four regions (range: -35.7 - -1% decrease) while they increased in WPRO (3.1%) and EURO (2.1%). COVID-19 deaths decreased in all six WHO regions (range: -46.4 - -5.7% decrease).
- **Globally**, approximately 3,271,110 new COVID-19 cases were reported in EW 37 (September 11, 2022-September 17, 2022) - a -0.7% decrease compared to EW 36 (September 04, 2022-September 10, 2022) (**Figure 1**). For the same period, 9,917 new COVID-19 deaths were reported globally – a -17.1% relative decrease compared the previous week.
- **In the region of the Americas**, 552,321 cases and 4,037 deaths were reported in EW 37 - a -12.4% decrease in cases and -5.0% decrease in deaths compared to the previous week.
- At the subregional level, COVID-19 cases decreased in all four subregions (range: -27.2 - -11.7%). Deaths increased in one subregion – North America (2.7%) – while the remaining three subregions reported a decline in weekly deaths (range: -52.2 - -14.6%).
- The overall weekly case notification rate for the region of the Americas was 54 cases per 100,000 population during EW 37 (61.6 the previous week). Between EW 37 and 36, the 14-day COVID-19 death rate was 8.1 deaths per 1 million population (9.3 the previous two weeks).
- Among 31 countries/territories in the region with available data, **COVID-19 hospitalizations** increased in 5 countries and territories (range: 0.3% - 35.1%) during EW 37 compared to the previous week. Among 23 countries and territories with available data, COVID-19 **ICU admissions** increased in 5 countries and territories (range: 2.3% - 200%).

Figure 1: COVID-19 cases and deaths by epidemiological week (EW) of report and WHO region. EW 4, 2020 - EW 37, 2022.

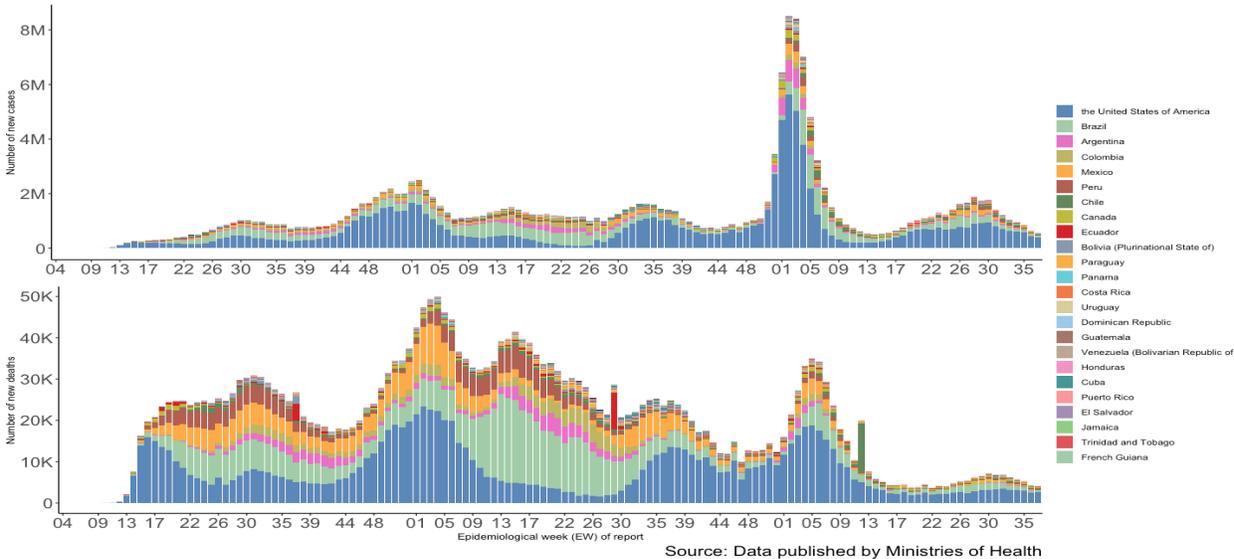


Source: Data from WHO COVID-19 Dashboard

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 - 37, 2022.



During EW 37, 552,321 new **COVID-19 cases** were reported in the region of the Americas - a relative decrease of -12.4% compared to previous week (**Figure 2**). The highest number of COVID-19 cases in the last week was reported from North American subregion (418,771 cases, -11% decrease) (**Table 1**). During EW 37, the highest proportion of weekly COVID-19 cases were reported by the United States of America (395,117 new cases, -11.3% decrease), Brazil (62,346 new cases, 2.9% increase), and Chile (23,853 new cases, -26.1% decrease).

Table 1: Weekly change (%) in cases and deaths between EW 36 and EW 37 by subregion. Region of the Americas

Subregion	Total Cases	Total Deaths	Cases EW 36	Deaths EW 36	Cases EW 37	Deaths EW 37	% Change Cases	% Change Deaths
Caribbean and Atlantic Ocean Islands	4,204,665	34,939	17,573	124	14,332	77	-18.4%	-37.9%
Central America	3,949,858	53,279	17,405	134	12,643	64	-27.4%	-52.2%
North America	105,607,898	1,419,525	474,125	2,808	418,771	2,884	-11.7%	2.7%
South America	73,669,388	1,325,131	121,122	1,185	106,575	1,012	-12.0%	-14.6%

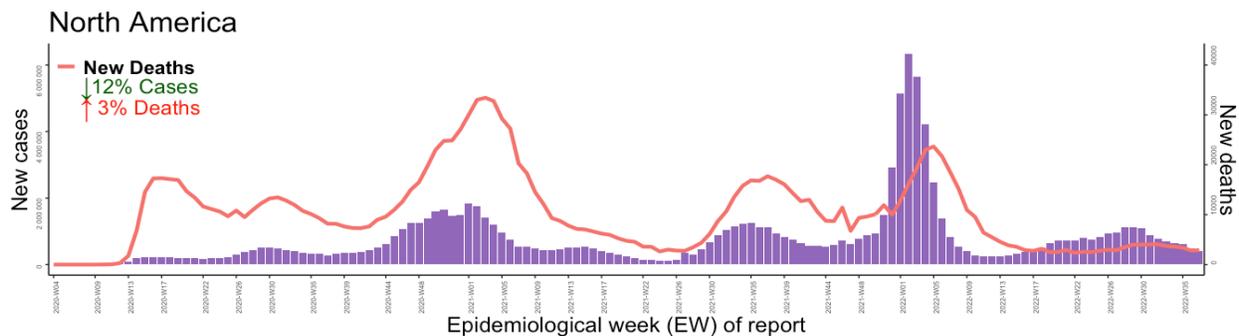
For the same period, 4,037 **COVID-19 deaths** were reported in the region of the Americas - a relative decrease of -5.0% compared to previous week (**Figure 2**). The subregion reporting the the highest number of COVID-19 deaths in the last week was North America (2,884 deaths, 2% increase) (**Table 1**). At the national level, the highest proportion of weekly COVID-19 deaths were reported from the United States of America (2,601 new deaths, 4.8% increase), Brazil (487 new deaths, -11.6% decrease), and Canada (245 new deaths, 2.5% increase).

A summary of the COVID-19 trends for EW 37 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 418,771 new cases (-11.7% decrease) being reported during EW 37 as compared to the previous week. During EW 37, the largest decline in weekly cases was reported by Mexico (5,221 cases, -48.1% decrease), followed by the United States of America (395,117 cases, -11.3% decrease). Canada did not report any substantial changes in weekly cases – reporting a 0.3% increase in cases (18,433 cases) during EW 37 compared to the previous week.

Figure 3: COVID-19 cases and deaths by epidemiological week (EW). North America. Region of the Americas. EW 3, 2020 - EW 37, 2022.



For the same period, **Weekly COVID-19 deaths** in North America have slightly increased for the first time since August 2022 - with a total of 2,884 new deaths (2.7% increase) reported relative to the previous week. Two countries in the subregion reported an increase in weekly deaths – with the largest proportion of reported deaths being reported by the United States of America (2,601 new deaths, 4.8% increase), followed by Canada (245 new deaths, 2.5% increase). Mexico reported a large decrease in weekly deaths (38 new deaths, -55.8% decrease) during EW 37 compared to the previous week.

During EW 37, 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=32,754, -7.1% decrease) and ICU admissions (n=3,994, -5.8% decrease). In the same period, Canada reported a -3.1% decline in weekly hospitalizations (n=4,787) and a 2.7% increase in ICU admissions (n=267) during EW 37 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 84.8% and 11.8% of cases for the week ending on 17 September 2022 in the United States of America¹, 92% and 5.3% for the week of 28 August 2022 in Canada², and 93.6% and 3.6% as of EW 35 in Mexico, respectively.

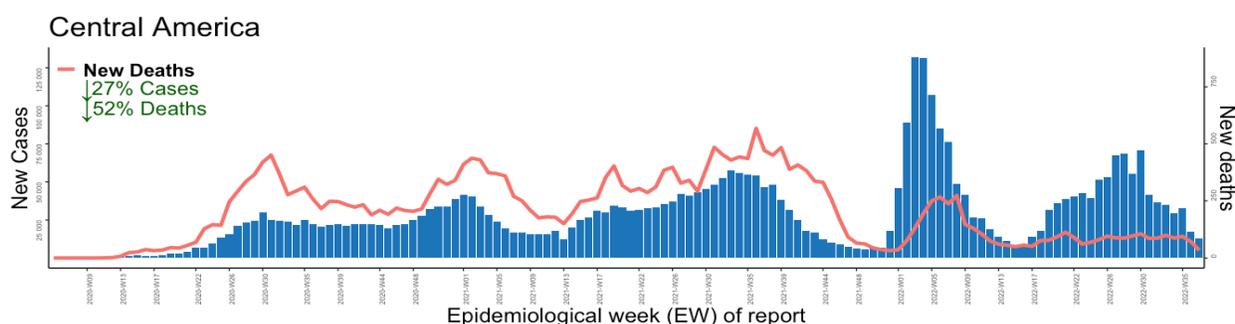
¹ The United States Centers for Disease Control and Prevention (CDC). Variant Proportions. Accessed 20 September 2022. Available at: <https://bit.ly/3Obz8cT>

² Public Health Agency of Canada (PHAC). COVID-19 Epidemiological Update. Accessed 20 September 2022. Available at: <https://bit.ly/3bbFRFR>

Central America

In Central America, the overall COVID-19 incidence for the subregion is on a downward trend with 12,643 new cases reported during EW 37 – a -27.2% 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 37, 2022.



During EW 37, two countries experienced an increase in **weekly cases** - Honduras (825 new cases, 255.6% increase) and Belize (231 new cases, 87.8% increase) compared to the previous week. Please note that data for Honduras for the complete EW 36 were not publicly available, resulting in a data artifact in percent change in weekly cases for EW37. The remaining eight countries and territories reported a decline in cases with the exception of El Salvador had not reported any cases between EW 36 and 37. The countries with the largest decline in cases during EW 37 included Guatemala (3,830 new cases, -40.5% decrease), Panama (1,580 new cases, -34.5% decrease), and Costa Rica (6,177 new cases, 24.3%).

For the same period, **weekly deaths** decreased by approximately -52.2% relative to the previous week (**Figure 4**). From the countries and territories that reported weekly deaths, one country - Honduras - reported an increase compared to the previous week (3 new deaths, 100% increase). The remaining countries reported a decrease in deaths (range: -66.7 - -23.1% decrease) compared to the previous week. The countries with the largest decline in cases during EW 37 included El Salvador (1 new death, -66.7% decrease), Guatemala (37 new deaths, 62.2%), and Panama (3 new deaths, 57.1%).

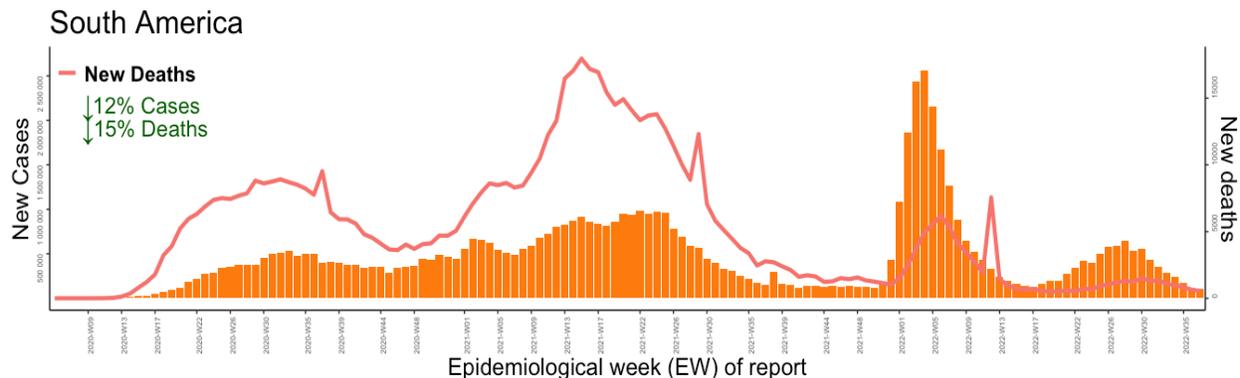
Among four countries and territories with available data in the Central American sub-region, one country – Honduras – reported an increase (50 hospitalizations, 35.1% increase) in **weekly hospitalizations** during EW 37 compared to the previous week, one – Belize – remained the same, and two reported a decline – Panama (82 hospitalizations, -16.3% decline) and Costa Rica (212 hospitalizations, -14.5% decline). Among three countries and territories with data available for **weekly COVID-19 ICU admissions**, one reported an increase – Honduras (2 ICU admissions, 100% increase), and the remaining two countries reported a decline compared to the previous week – Panama (7 ICU admissions, -46.2% decline) and Costa Rica (38 ICU admissions, 11.6% decline).

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 seventh consecutive week, with a total of 106,575 new COVID-19 cases being reported during EW 37 – a -12.0% 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 37, 2022.



Out of the 10 countries and territories the sub-region, two countries experienced an increase in weekly cases during EW 37 – Ecuador (2,012 new cases, 42% increase) and Brazil (62,346 new cases, 2.9% increase). The remaining eight countries and territories reported a decline for the same period, with the largest decline in cases being reported by Bolivia (Plurinational State of) (1,237 new cases, -45.2% decrease), followed by Venezuela (Bolivarian Republic of) (496 new cases, -44.3% decrease), and Peru (7702 new cases, -37.8% decrease).

During EW 37, **COVID-19 weekly deaths** in the subregion have declined for the fifth consecutive week, with a total of 1012 COVID-19 deaths being reported in South America – a -14.6% decrease compared to the previous week. One country – Uruguay – reported an increase in weekly deaths (11 new deaths, 57.1% increase), while the remaining nine countries and territories reported a decline during EW 37 compared to the previous week. The largest decline in deaths were reported by Argentina (25 new deaths, -59% decrease), followed by Venezuela (Bolivarian Republic of) (4 new deaths, -50% decrease), and Ecuador (9 new deaths, -43.8% decrease).

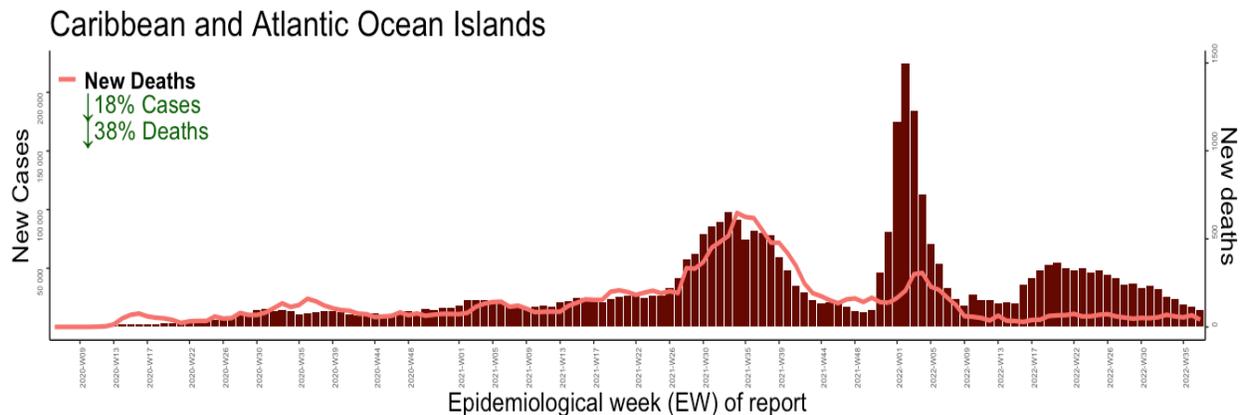
For the same period, among five countries and territories in the subregion with data available for **COVID-19 weekly hospitalizations**, one country – Venezuela (Bolivarian Republic of) – reported an increase in weekly hospitalizations (171 hospitalizations, 6.9% increase), one reported a decrease – Colombia (694 hospitalizations, -15.5% decrease), and the remaining three countries remained the same in weekly hospitalizations during EW 37 compared to the previous week. With regards to ICU admissions, all six countries and territories with data available for **COVID-19 ICU admissions** in this subregion reported either a decline (n=4, range: -36.2 - -1.4% decrease) or no changes (n=2) compared to the previous week.

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** have decreased for the sixth consecutive week – a decrease of 18.4% in weekly cases observed during EW 37 compared to the previous week (**Figure 6**). At the national level, cases increased in 11 out of the 34 countries and territories in the subregion (range: 8.1% - 166.7%) while it declined in 18 countries and territories (range: -100% - -0.6%) during EW 37 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 37, 2022.



During EW 37, **COVID-19 weekly deaths** decreased by -37.9% (77 deaths) compared to the previous week in the Caribbean and Atlantic Ocean Islands subregion. Five countries and territories in the subregion observed a relative increase (range: 12.5 – 100% increase) in their weekly deaths compared to the previous week. Weekly deaths either remained the same (n=20, 0% change) or declined in the remaining nine countries and territories of the subregion (range: -100 – -57.1) during EW 37 compared to the previous week.

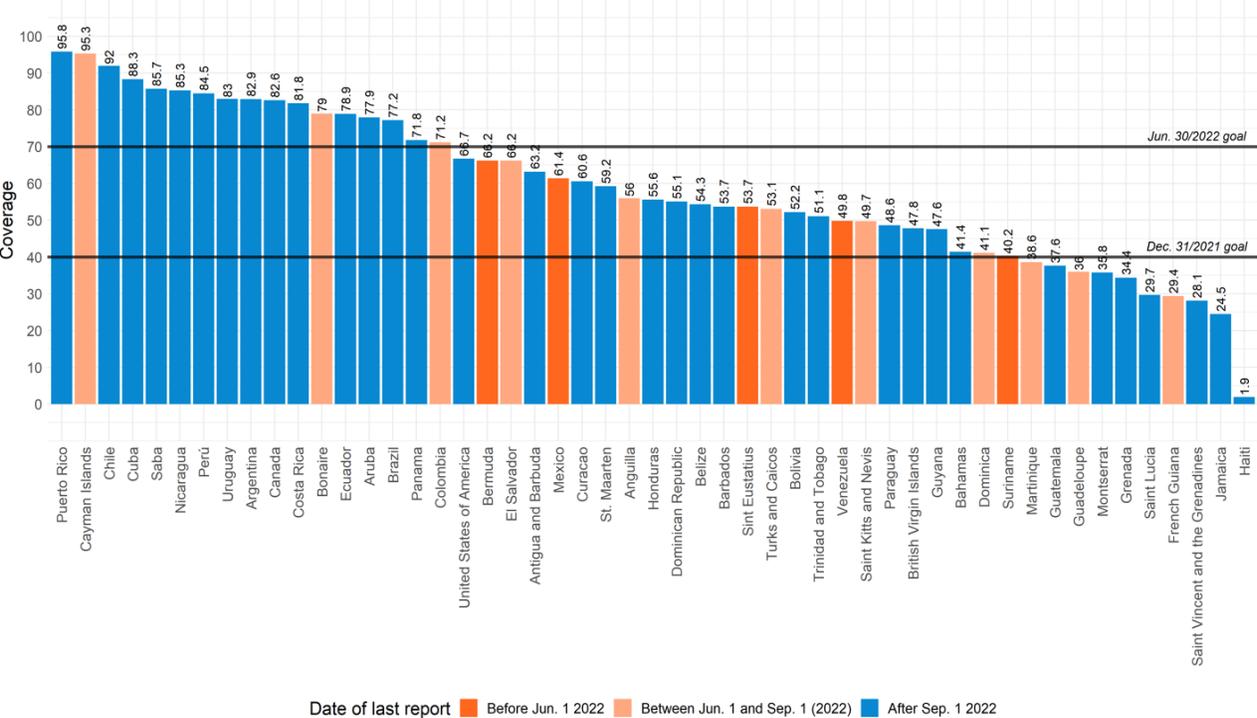
Among 20 countries and territories with available data for **weekly COVID-19 hospitalizations**, three countries and territories in the subregion reported a slight increase in hospitalizations - the Bahamas (18 hospitalizations, 5.9% increase), Martinique (58 hospitalizations, 1.8% increase), and Trinidad and Tobago (193 hospitalizations, 1% increase). The remaining countries and territories observed either no changes (n=7) or a decline (n=9, range: -100 - -10% decrease). Similarly, among 11 countries and territories with data available, three observed an increase in **COVID-19 ICU admissions** (n=3, range: 2.3 – 200% increase) while four reported a decline (range: -50 - -11% decrease) during EW 37 compared to the previous week.

Notable increases in weekly cases in the subregion during EW 37 were reported from Turks and Caicos Islands (8 new cases, 166.7% increase), Saint Pierre and Miquelon (14 new cases, 75% increase), and Curaçao (9 new cases, 68.8% 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 coverage rate for complete primary series in the region of the Americas. As of EW 37, 2022.



As noted in previous PAHO weekly SitRep, the number of countries/territories in the Americas that report weekly COVID-19 vaccination data, either via national dashboards or directly to PAHO, is falling. This is evident in **Figure 7**, which shows the current coverage rate* (i.e., proportion of the population who received at least two COVID-19 vaccine doses) by country/territory. The color scheme represents the date of last update. Of the 51 countries and territories, 35 updated their information within the last three epidemiological weeks (blue bar). On the other hand, five countries and territories have not provided updated information since before 1 June 2022 (dark orange bar), and another 11 updated their information at some point between the last three months and the last three weeks (light orange bar). Finally, based on available data, 13 of the 16 countries and territories that have not reported in the last 3 weeks, still report a vaccination coverage rate below the 70% mark.

* 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

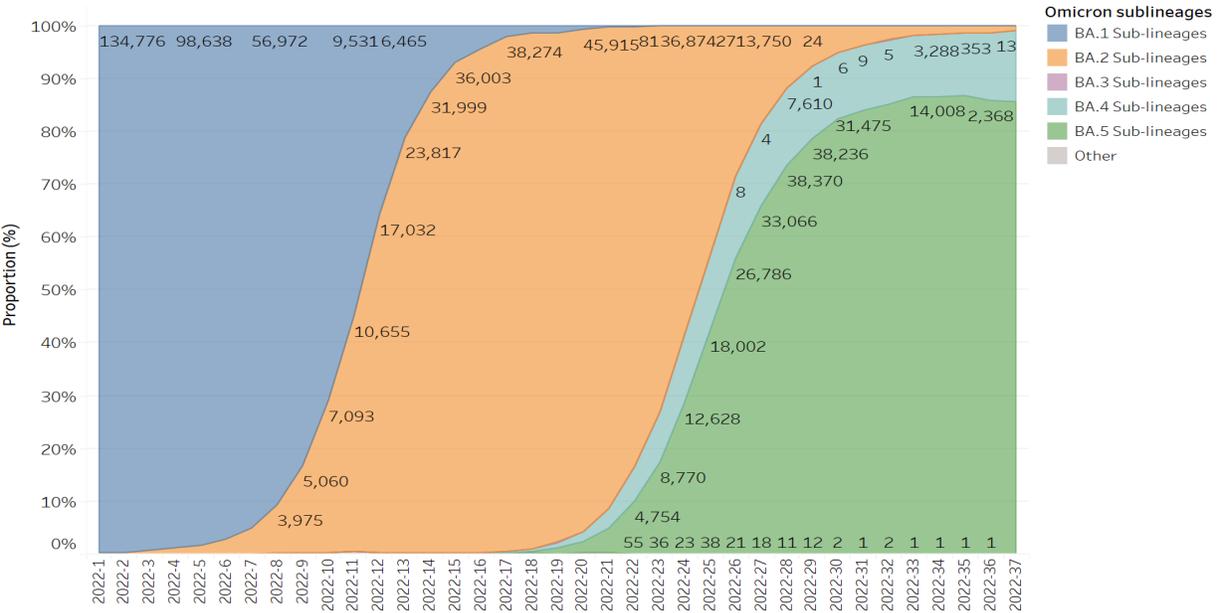
Genomic surveillance

Through PAHO's Genomic Surveillance Regional Network and the work from the Member States, 458,990 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 20 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: 51.6% of BA.1 (and BA.1 sublineages), 27.9% of BA.2 (and sublineages), 0.0% of BA.3 (and sublineages), 3.7% of BA.4 (and BA.4 sublineages), and 16.8% 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 98.5%, 96.6%, 100%, and 95.2% 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)



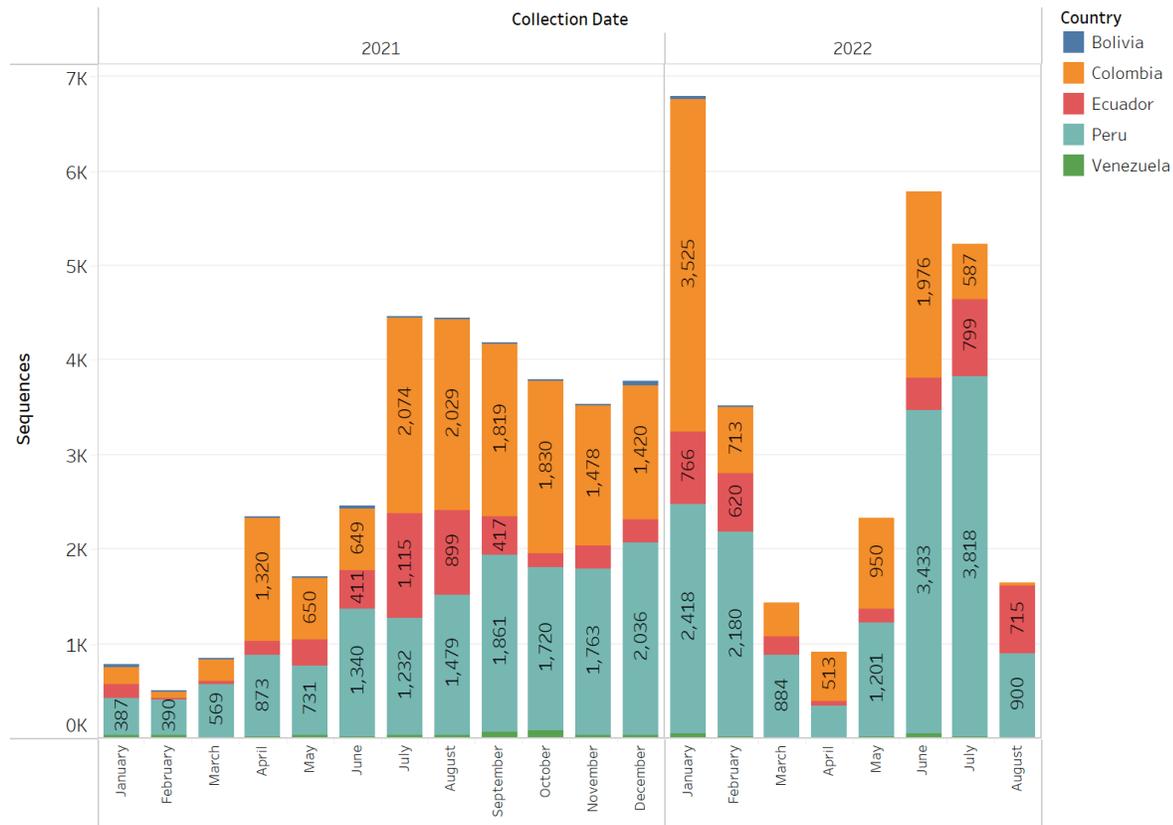
Source: GISAID

Spotlight: Sequencing and genomic surveillance in the Andean subregion

During the last 19 months (January 2021 to 17 September 2022), 60,311 whole genome sequences from Andean countries (Bolivia, Colombia, Ecuador, Peru, and Venezuela) 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 12 weeks (**Figure 10**). Since Omicron’s first detection, BA.1 and BA.1 sublineages represent the majority (44.5%) of cumulative sequences, while BA.2 and BA.2 sublineages represent 25.9% of the cumulative sequences, and BA.3, BA.4, and BA.5 (with their respective sublineages) represent 0.10%, 9.2%, and 20.3% 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 (21 August to 17 September), BA.5 is the predominant sublineage (68.4%) while BA.4 and BA.2 account for 17.8% and 14.0% of the sequences, respectively. It is important to note that the majority of sequences (75.8%) for the 4-week period was contributed by Ecuador (**Figure 9**).

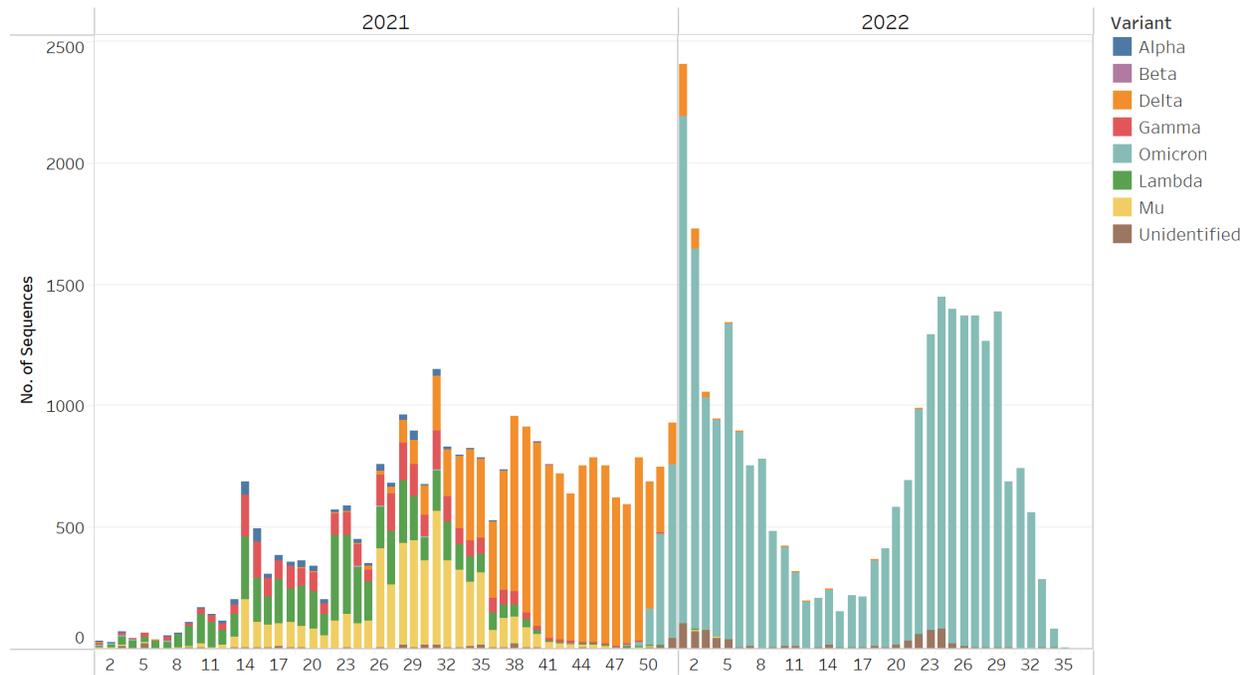
It is important that all countries at PAHO region continue the collection of representative samples for sequencing and to maintain COVID-19 appropriate genomic surveillance.

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



Source: GISAID

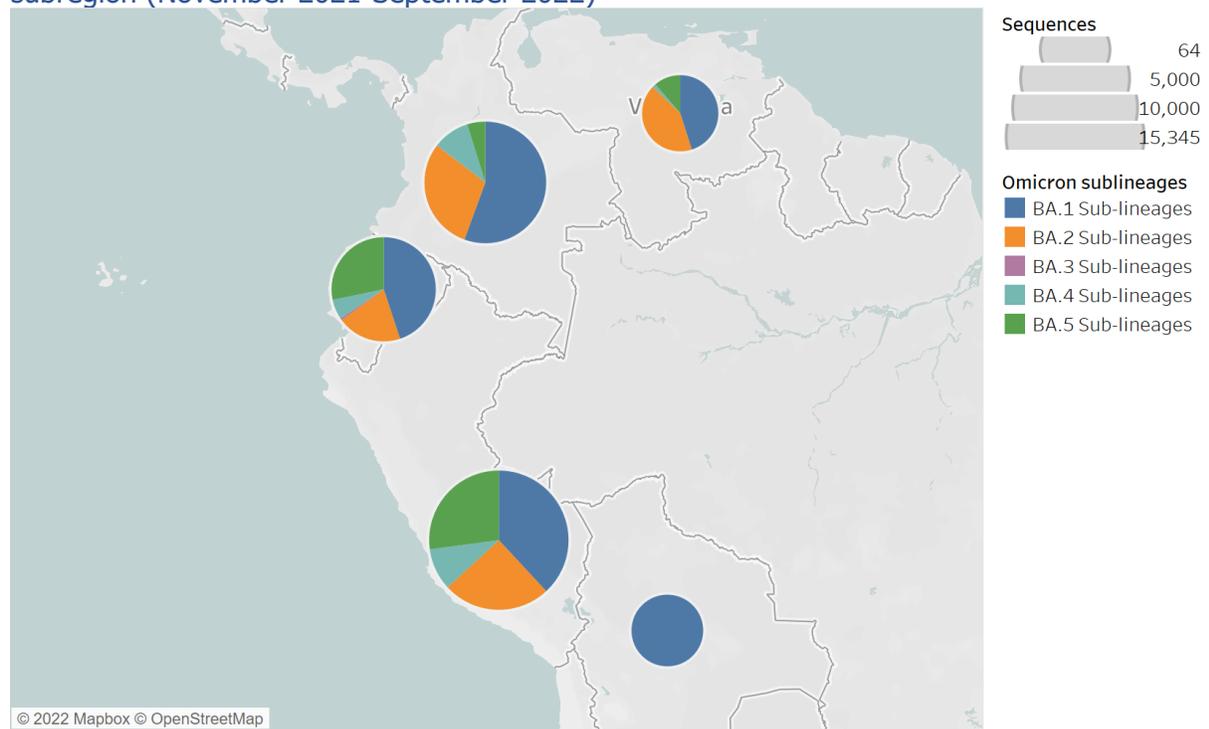
Figure 10. Variants detected and reported by countries in the Andean subregion (January 2021-September 2022)



Source: GISAID

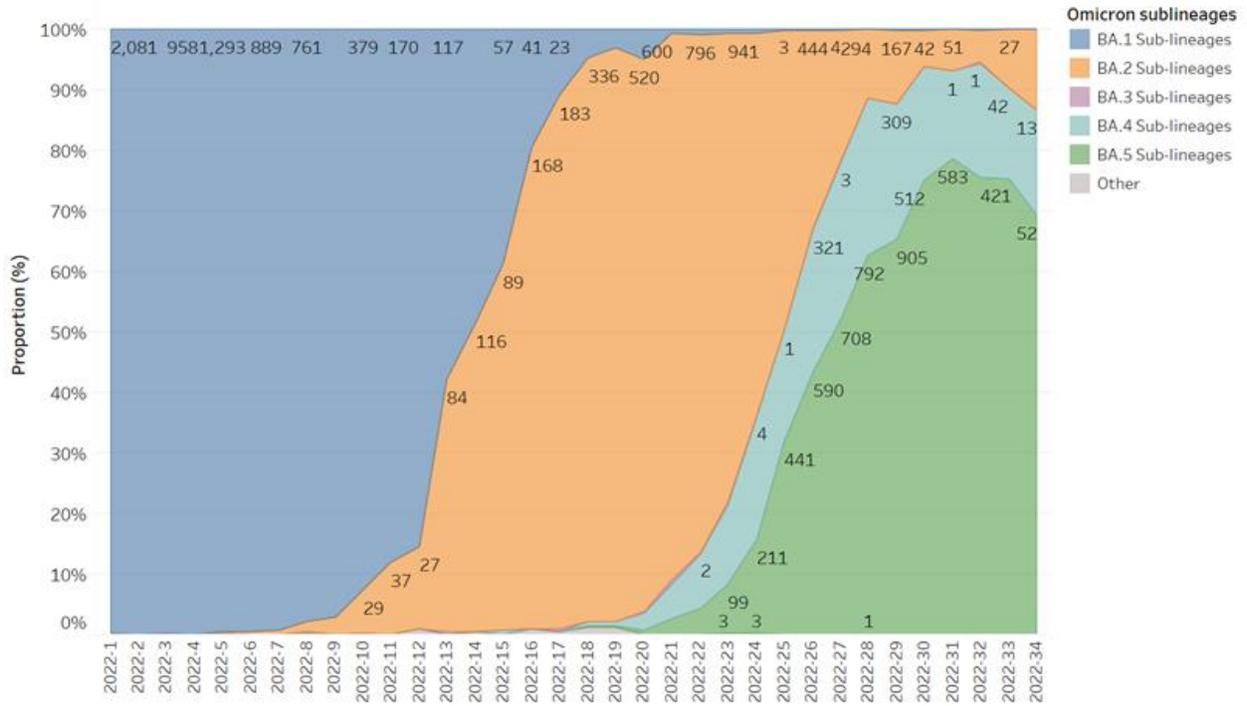
Country-specific data is available at: https://ais.paho.org/phip/viz/SARS_CoV2_variants_regional.asp

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



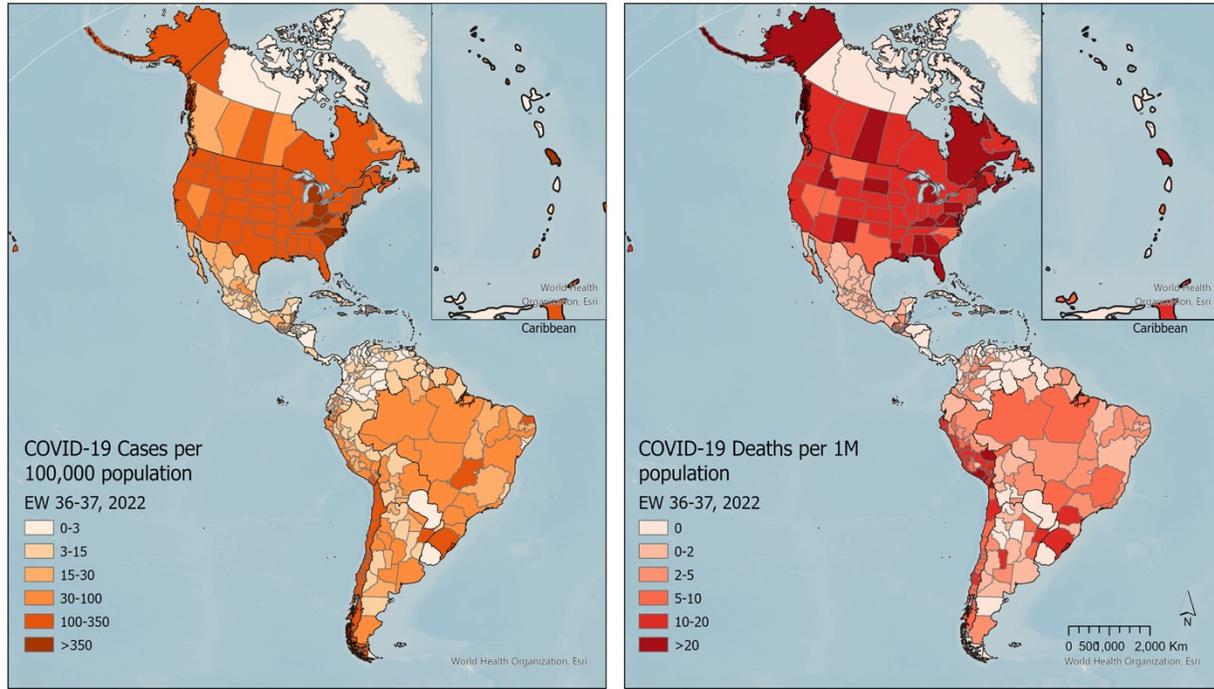
Source: GISAID

Figure 12. Proportion of VOC Omicron sublineages in the Andean subregion (January-August 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 36 and 37, 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 36 and 37, 2022. At the regional and sub-regional levels, incidence and mortality continue to follow the decreasing trend that began roughly a month and a half ago.

At the sub-regional level, the greatest decline in both incidence and mortality compared to the previous two weeks was observed in Central America (the only country reporting an increase in the sub-region was Belize).

Countries/territories reporting highest incidence rates (>350 cases per 100,000) for the last two weeks were the United States (mostly mid-west states), Martinique, Puerto Rico, and the U.S. Virgin Islands. On the other hand, Canada, the United States, Peru, Martinique, and Guatemala reported the highest mortality rates in the region (>20 deaths per 100,000) for the last two weeks. In North America, fewer territories in Canada and the United States reported over 20 million deaths per million population, and most countries and territories Mexico, Central America and the Caribbean reported below 10 deaths per million people. In South America, all but one (Arica) of Chile’s region reported below 20 deaths per million population, and only a few departments in Peru reported above 20 deaths per million people.

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.