

Biweekly COVID-19 Epidemiological Update - Region of the Americas

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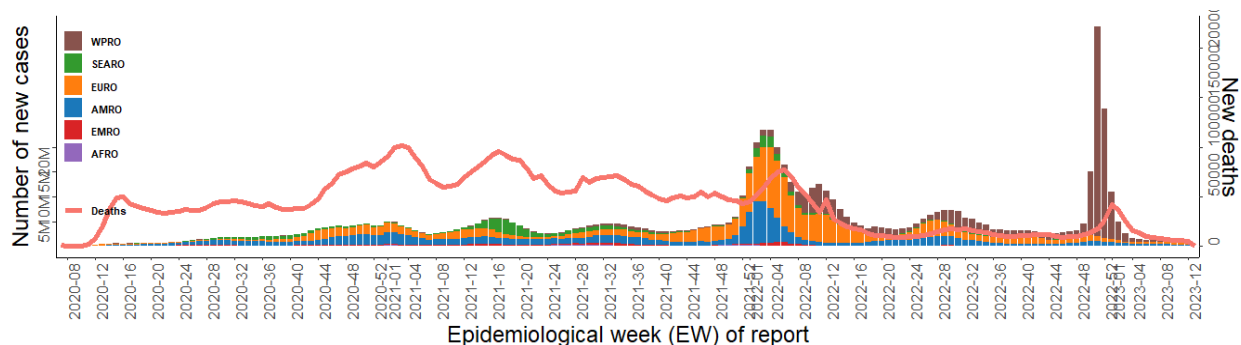
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Executive Summary

- **Since the onset of the pandemic** in 2020 and up to 15 April 2023, a cumulative total of 763 million COVID-19 cases including 6.9 million deaths were reported from all six WHO regions. During epidemiological week (EW) 14 & 15, cases increased in SEARO (215.8%), EMRO (29.7%), and WPRO (10.6%) and deaths decreased in 4 regions while they increased in SEARO (127.0%) and EMRO (80.1%) compared to the previous 2 weeks.
- **In the region of the Americas**, 365,747 cases and -5,060 deaths were reported in EW 14 & 15 – a -33.6% decrease in cases and -378.9% decrease in deaths compared to the previous 2 weeks. Please note, the negative number in deaths for EW 14&15 in the region of the Americas is due to a retro-adjustments done by Chile and Canada for cumulative deaths since 2020.
- At the subregional level, COVID-19 cases decreased in all subregions. Deaths increased in Caribbean and Atlantic Ocean Islands (21.3%).
- Among countries/territories in the region with available data, **biweekly COVID-19 hospitalizations** increased in eighteen countries and territories (range: 6.3% - 547.7%) during EW 14 & 15 compared to the previous 2 weeks. Among countries and territories with available data, **biweekly COVID-19 ICU admissions** increased in nine countries and territories (range: 8.8% - 1,350%).

Figure 1: COVID-19 cases and deaths by epidemiological week (EW) of report and WHO region. EW 4 2020 - EW 14 & 15 2023.

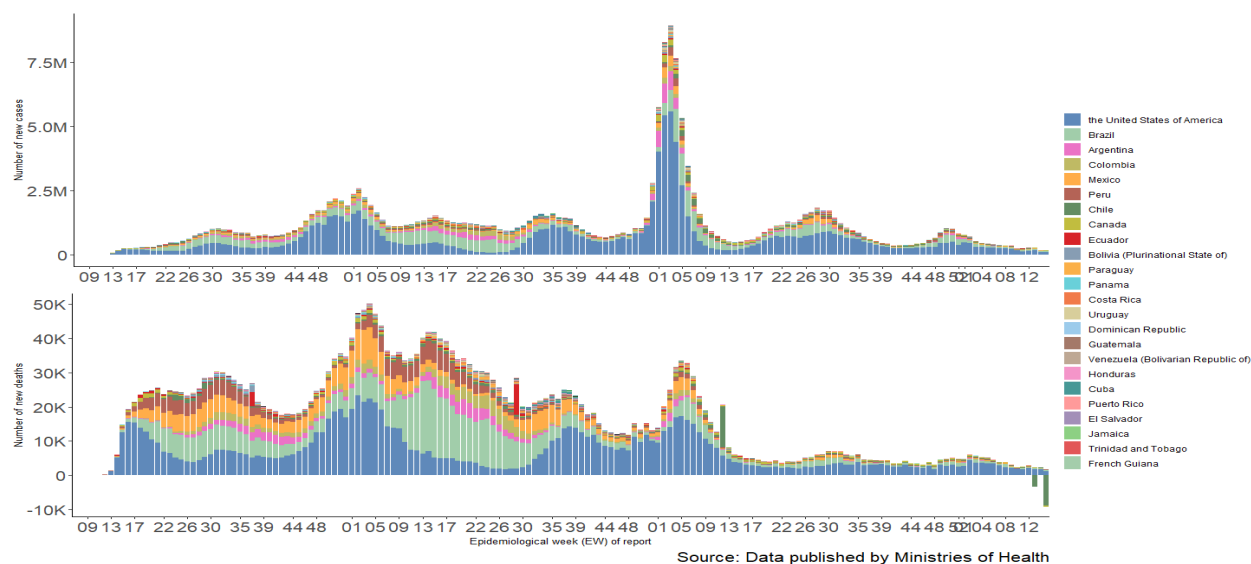


Source: Data from WHO COVID-19 Dashboard

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 - 14 & 15 2023.



During EW 14 & 15, 365,747 new **COVID-19 cases** were reported in the region of the Americas - a relative decrease of -33.6% compared to the previous 2 weeks (**Figure 2**). The highest number of COVID-19 cases in the last 2 weeks was reported from North America (236,927 cases, -36.7% decrease) compared to the previous 2 weeks. (**Table 1**). During EW 14 & 15, the highest proportion of biweekly COVID-19 cases at the national level were reported by the United States of America (207,529 new cases, -37% decrease), Brazil (99,429 new cases, -12.1% decrease), Mexico (16,002 new cases, -43.9% decrease).

Table 1: Biweekly change (%) in cases and deaths between EW 12 & 13 and EW 14 & 15 by subregion. Region of the Americas

Subregion	Total Cases	Total Deaths	Cases EW 12&13	Deaths EW 12&13	Cases EW 14&15	Deaths EW 14&15	% Change Cases	% Change Deaths
Caribbean and Atlantic Ocean Islands	4,417,938	36,489	6,248	47	4,747	57	-24.00%	21.30%
Central America	4,269,142	54,406	12,652	39	3,518	7	-72.20%	-82.10%
North America	115,292,702	1,507,251	374,011	4,271	236,927	2,766	-36.70%	-35.20%
South America	68,123,433	1,338,079	157,924	-2,543	120,555	-7,890	-23.70%	-210.30%

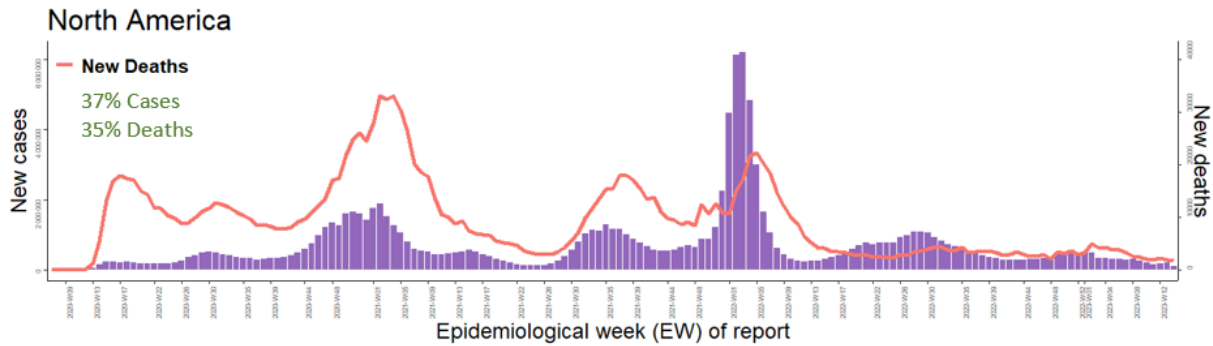
For the same period, -5,060 **COVID-19 deaths** were reported in the region of the Americas - a relative decrease of -378.9% compared to the previous 2 weeks (**Figure 2**). Please note, the negative number in deaths for EW 14&15 in the region of the Americas is due to a retro-adjustments done by Chile and Canada for cumulative deaths since 2020, this retro-adjustment produced a high impact in the analysis conducted during EW 14 & 15. The highest number of COVID-19 deaths in the last 2 weeks was reported from North America (2,766 deaths, -35.2% decrease) (**Table 1**). At the national level, the highest proportion of biweekly COVID-19 deaths were reported by the United States of America (3,019 new deaths, -21.2% decrease), Brazil (572 new deaths, -5.5% decrease), and Peru (207 new deaths, 40.8% increase).

A summary of the COVID-19 trends for EW 14 & 15 by subregion is presented below.

North America

The overall trends for COVID-19 cases have been decreasing in North America as of EW 14 & 15. During EW 14 & 15, the largest proportion of reported cases were reported by the United States of America (207,529 cases, -37% decrease), followed by Mexico (16,002 cases, -43.9% decrease), and Canada (13,396 cases, -17.2% decrease).

Figure 3: COVID-19 cases and deaths by epidemiological week (EW). **North America.** Region of the Americas. EW 3 2020 - EW 14 & 15 2023.

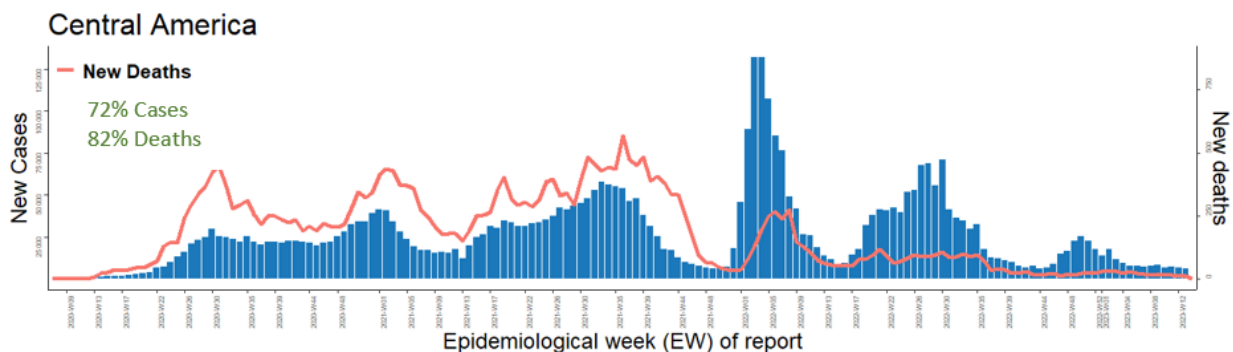


For the same period, **biweekly COVID-19 deaths** decreased by -35.2% in North America during EW 14 & 15 relative to the previous 2 weeks. The largest proportion of reported deaths were reported by the United States of America (3,019 new deaths, -21.2% decrease), followed by Mexico (105 new deaths, -36% decrease). Please note, Canada reported a negative value of -358 new deaths in EW 14 & 15 due to a retro-adjustment done on 12 April 2023 related to deaths recorded since 2020.

During EW 14 & 15, among the two countries in North America with available data for **biweekly COVID-19 hospitalizations and ICU admissions**, none reported an increase in their biweekly COVID-19 ICU admissions. The United States of America reported a decrease in its biweekly COVID-19 hospitalizations (n=16,756, -18.1%) and a decrease in its biweekly ICU admissions (n=2,109, -16.4%). In Canada, biweekly hospitalizations decreased, and biweekly ICU admissions decreased during EW 14 & 15 compared to the previous 2 weeks (n=3,223 hospitalizations, -1.9% & n=171 ICU admissions, -6.6%).

Central America

Figure 4: COVID-19 cases and deaths by epidemiological week (EW). **Central America.** Region of the Americas. EW 6 2020 - EW 14 & 15 2023.



In Central America, the overall **COVID-19 incidence** for the subregion has decreased with 3,518 new cases being reported during EW 14 & 15 – a -72.2% decrease compared to the previous 2 weeks (**Figure 4**). Please note that data for Costa Rica was not available for EW 14 & 15, resulting in a data artifact in percent changes in the subregion.

Panama was the only country in the subregion that reported an increase in cases during EW 14 & 15 compared to the previous 2 weeks (1,576 new cases, 87.2% increase).

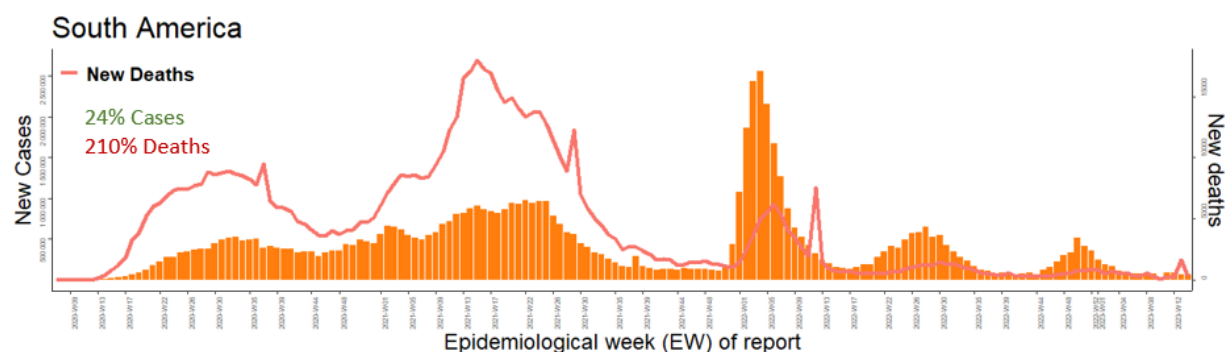
During EW 14 & 15, **biweekly deaths** decreased by approximately -82.1% relative to the previous 2 weeks period (**Figure 4**). Panama was the only country in the subregion that reported an increase in biweekly deaths (5 new deaths, 100% increase).

Among four countries and territories with available data for **biweekly COVID-19 hospitalizations** in the Central American subregion, three countries and territories reported an increase in their biweekly COVID-19 hospitalizations (range: 20 – 273.5%). Among three countries and territories with available data for **biweekly COVID-19 ICU admissions**, Panama reported an increase in their biweekly COVID-19 ICU admissions (n=29, 1,350% increase).

South America

In South America, the overall **COVID-19 incidence** for the subregion has decreased by -23.7%, with a total of 120,555 new COVID-19 cases being reported during EW 14 & 15 compared to the previous 2 weeks (**Figure 5**).

Figure 5: COVID-19 cases and deaths by epidemiological week (EW). **South America. Region of the Americas. EW 3 2020 - EW 14 & 15 2023.**



Out of the 10 countries and territories the subregion, two experienced an increase in cases during EW 14 & 15 (range: 7 – 20.9% increase) with the largest proportion of reported cases being reported by Brazil (99,429 new cases, -12.1% decrease), followed by Chile (13,922 new cases, -62.3% decrease), and Peru (4,005 new cases, 7% increase).

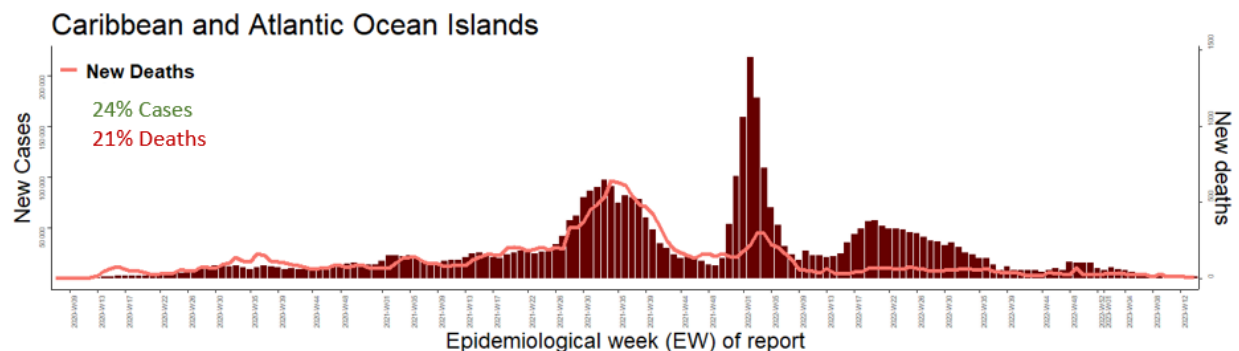
During EW 14 & 15, a total of -7,890 **COVID-19 deaths** were reported in South America – a -210.3% decrease compared to the previous 2 weeks. Please note, the negative number in cumulative deaths for EW 14 & 15 in the region is due to a retro-adjustment done by Chile related to cumulative deaths recorded since 2020, this retro-adjustment produced a high impact in the analysis conducted during EW 14 and EW 15. The largest decline in deaths were reported by Uruguay (0 new deaths, -100% decrease), followed by Bolivia (1 new death, -83.3% decrease).

Among the five countries and territories in the subregion with data available for **biweekly COVID-19 hospitalizations**, four countries and territories reported an increase in their biweekly COVID-19 hospitalizations (range: 6.3 – 547.7%). For the same period, four countries and territories out of six with data available for **biweekly COVID-19 ICU admissions** reported an increase in their biweekly COVID-19 ICU admissions (range: 8.8 - 100%).

Caribbean and Atlantic Ocean Islands

In the Caribbean and Atlantic Ocean Islands sub-region, **COVID-19 cases** decreased by -24% (4,747 new cases) compared to the previous 2 weeks (**Figure 6**). At the national level, cases increased in ten out of the 34 countries and territories in the subregion (range: 9.1% - 250%).

Figure 6: COVID-19 cases and deaths by epidemiological week (EW). **Caribbean and Atlantic Ocean Islands.** Region of the Americas. EW 6 2020 - EW 14 & 15 2023.

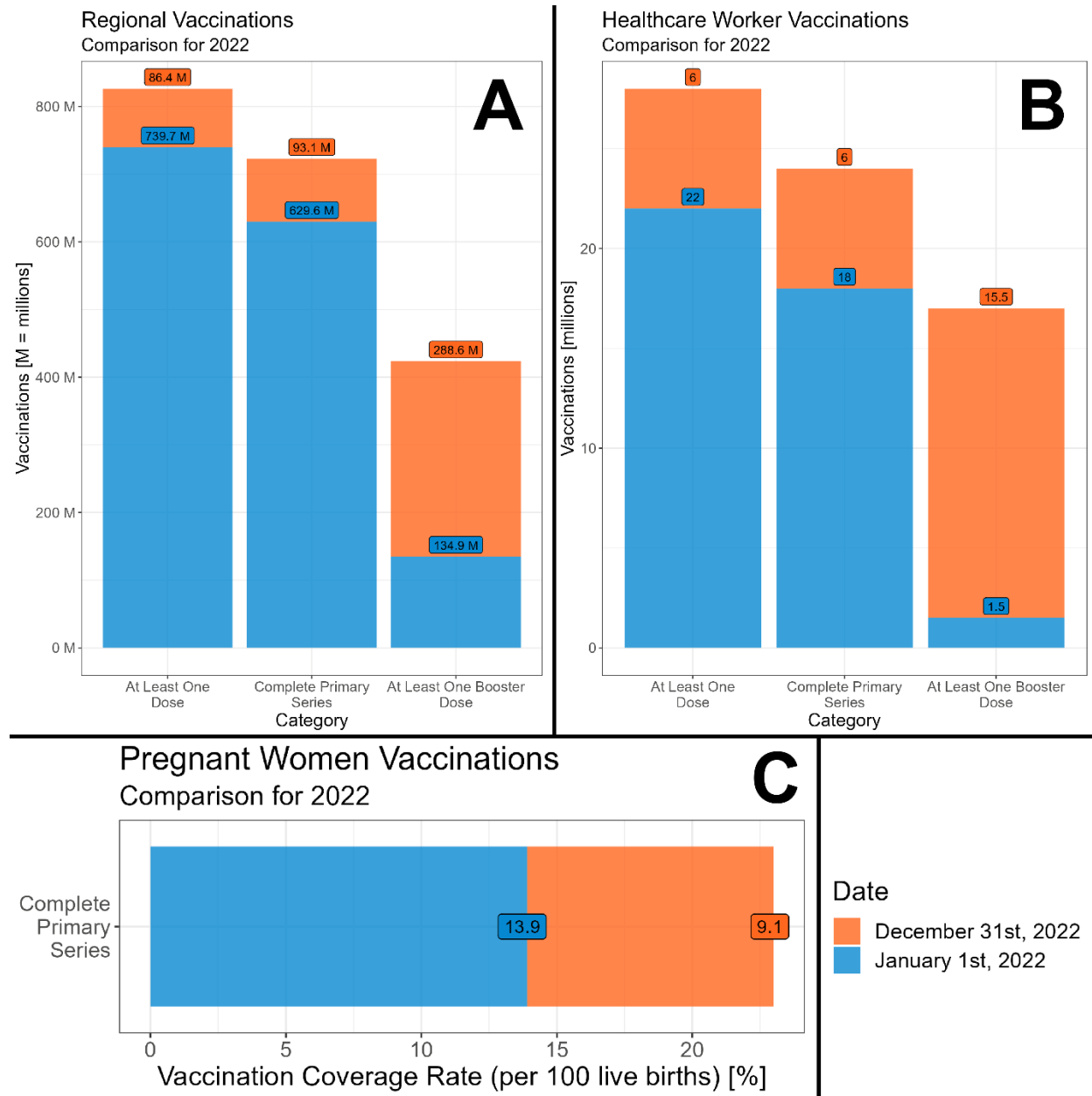


For the same period, **COVID-19 deaths** increased by 21.3% (57 deaths) in the Caribbean and Atlantic Ocean Islands subregion. Four countries and territories in the subregion observed a relative increase in their biweekly deaths in EW 14 & 15 compared to the previous 2 weeks (range: 18.2% - 100%). Biweekly deaths either remained the same or declined in the remaining countries and territories of the subregion (range: -100 – -62.5%).

During EW 14 & 15, among the countries and territories with available data for **biweekly COVID-19 hospitalizations**, eleven countries and territories reported an increase in their biweekly COVID-19 hospitalizations (range: 27.3 – 155.2%). Among countries and territories with data available for **biweekly COVID-19 ICU admissions**, four reported an increase in their biweekly COVID-19 ICU admissions (range: 50 - 100%).

Immunization

Figure 7: Increases in the number of vaccinated persons in the Region of the Americas between 1 January and 31 December 2022, by vaccine dose and by population group.



Graph A reports the number of persons in the general population of the Americas who received the first, second and at least one booster dose of COVID-19 vaccine. The blue portion of the column represents the number of persons who had received each dose by 1 January 2023, while the orange portion of the column represents the number of persons who received each dose by 31 December 2022. **Graphs B and C** report the same information for health workers and pregnant women, respectively.

The following elements are worth noting:

1. **Graph A** reports a 214% increase in the “At Least One Booster Dose” category among the general population between January and December 2022.
2. A similar trend can be seen in **Graph B**, where 15.5 million health workers fell into the “At Least One Booster Dose” category during this same period. On 1 January 2022, this number was 1.5 million.
3. **Graph C** reports the proportion of pregnant women (as estimated using the number of live births in 2021 *) who completed a primary vaccination series between January and December 2022.

Genomic surveillance

Through PAHO's Genomic Surveillance Regional Network and the work of Member States, 560,304 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 18 April 2023.

The vast majority of SARS-CoV-2 viruses circulating globally are sublineages of Omicron. According to the Pango Network nomenclature, Omicron comprises the BA.1 to BA.5 sublineages, which are in turn subdivided into diverse sublineages based on additional mutations that slightly change their genomic profile. Several sublineages arising from recombinations involving Omicron viruses have also been described.

Starting 15 March 2023, the WHO variant tracking system considers the classification of Omicron sublineages independently as **variants under monitoring** (VUM), **variants of interest** (VOIs), or **variants of concern** (VOCs)¹. With these changes, no lineage has been classified as currently circulating VOC, while the recombinant sublineage XBB.1.5 was classified as a currently circulating VOI. Additionally, BQ.1 (a BA.5 sublineage), BA.2.75 and CH.1.1 (two BA.2 sublineages), and XBB, XBB.1.9.1, XBB.1.16 and XBF recombinants were classified as currently circulating VUMs². Alpha, Beta, Gamma, Delta and the Omicron original lineages are classified as previously circulating VOCs.

Since the introduction of Omicron in the Americas, different sublineages have been predominant and have then progressively been replaced by new sublineages (**Figure 8**). BA.1 sublineages were dominant at the beginning of Omicron circulation, followed by a predominance of BA.2 sublineages from week 12 to 24 of 2022, and then by a combination of BA.4 and BA.5 from week 25 to 34. In weeks 34 to 40 of 2022, BA.5 sublineages continued their expansion and, since week 41, the proportion of recombinant lineages has been increasing. Currently, most circulating viruses are recombinant and BA.5 sublineages, with some circulation of BA.2 sublineages (**Figure 8**). In fact, in the past eight weeks, recombinant lineages represented 82.6%, 88.8%, 93.9%, and 88.8% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively. During the same period, BA.5 sublineages represented 14.2%, 4.7%, 3.2% and 9.9% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively.

Within these main sublineages, most viruses currently circulating in the Americas correspond to VOI XBB.1.5 and, to a lesser extent, VUMs XBB.1.9.1 and XBB.1.16. In particular, XBB.1.5, first identified in the USA at the end of October 2022,

* 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

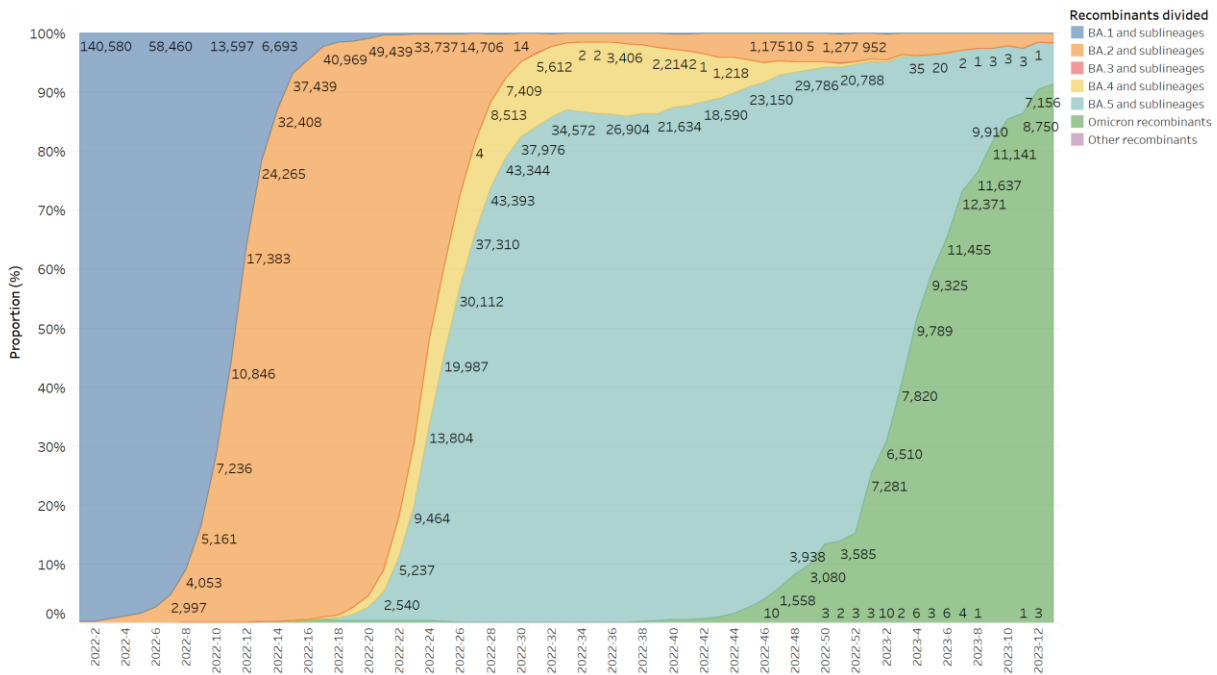
¹ WHO. Statement on the update of WHO's working definitions and tracking system for SARS-CoV-2 variants of concern and variants of interest. 16 March 2023. Available at: <https://www.who.int/news/item/16-03-2023-statement-on-the-update-of-who-s-working-definitions-and-tracking-system-for-sars-cov-2-variants-of-concern-and-variants-of-interest>

² WHO. Tracking SARS-CoV-2 variants. Available at: <https://www.who.int/en/activities/tracking-SARS-CoV-2-variants/>

has been detected in 29 countries and territories of the Americas. Since 12 March 2023, **VOI XBB.1.5** (and sublineages) represented 78.6%, 86.2%, 62.5%, and 78.5% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively. During the same period, **VUM XBB.1.9.1** (and sublineages) represented 2.9%, 5.0%, and 0.2% of the characterized samples in North America, Central America, and South America, respectively (no detections in the Caribbean). **VUM XBB.1.16** has been detected in Aruba, Canada, French Guiana, and the US, and has been increasing in Canada and the US during the past few weeks. Model-based projections estimate that XBB.1.16 represents 7.2% (95%CI: 4.5-11.3%) of the US sequences in week 15 of 2023³.

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 (**Figure 9**). This decrease, which is also observed in other regions, increases the risk of bias in the sublineage prevalence estimates reported above and reduces our collective ability to timely identify new emerging lineages or new variants. In this context, **PAHO strongly encourages all countries in the Region to continue collecting representative samples for sequencing and to maintain appropriate COVID-19 genomic surveillance.**

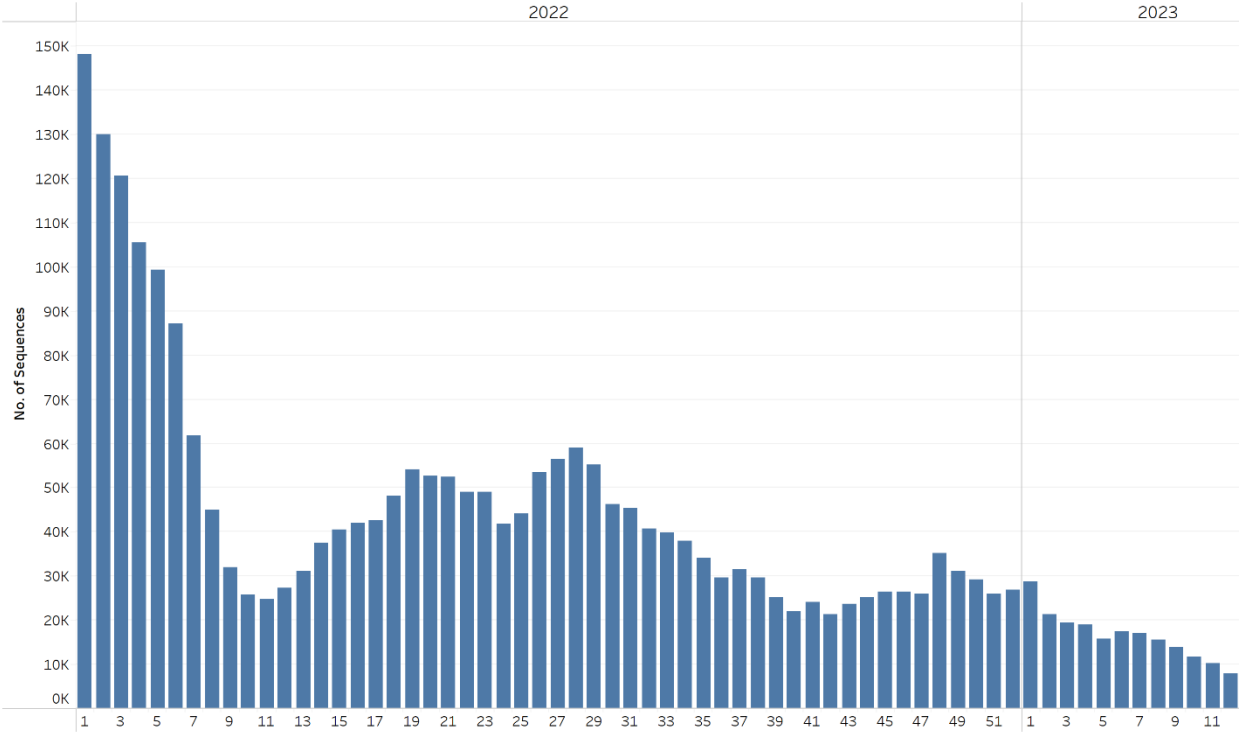
Figure 8: Proportions of VOC Omicron sublineages identified by the countries in the Region of the Americas (January 2022 - April 2023)



Source: GISAID

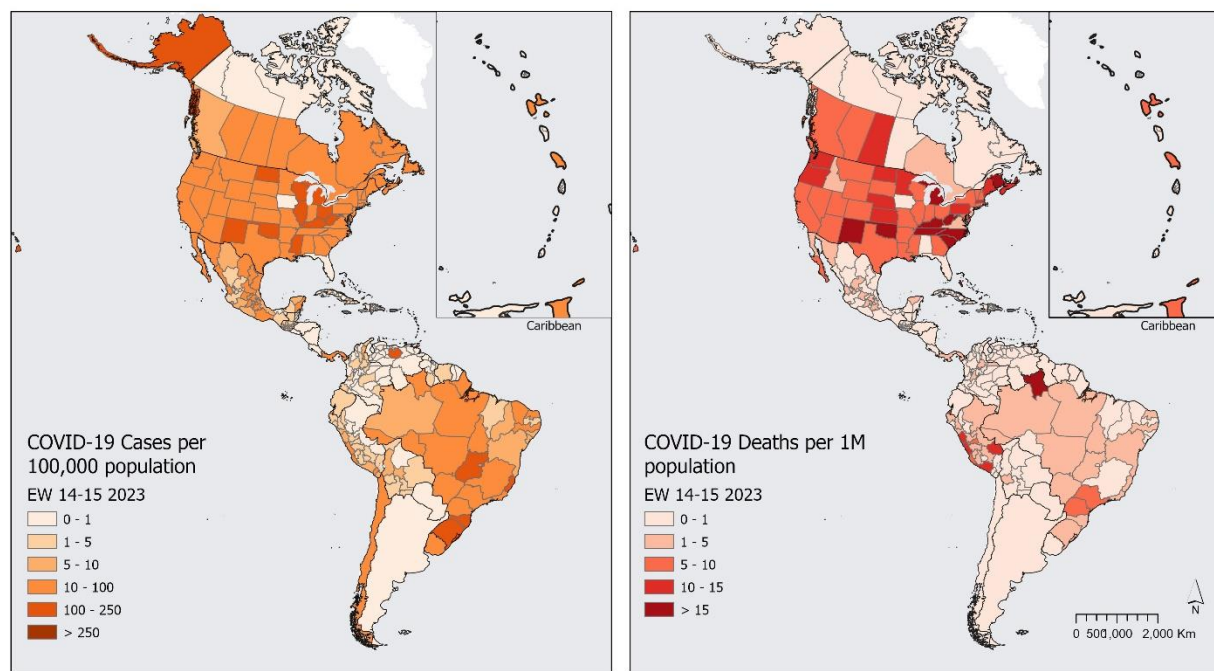
³ US CDC. COVID Data Tracker - Variant Proportions. Available at: <https://covid.cdc.gov/covid-data-tracker/#variant-proportions>

Figure 9: Number of weekly sequences generated in the Region of the Americas (January 2022 - April 2023)



Source: GISAID

Annex 1: COVID-19 incidence rate per 100,000 population and COVID-19 mortality rate per 1 million population. Region of the Americas. Between EW 14 and 15 in 2023



The maps 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 14 and 15, 2023.

The highest case incidence was observed in the US, Brazil and Venezuela, while the highest mortality was seen in the USA, Canada, and Brazil.

In North America, some states in the US observed the highest incidence rates in the subregion with over 100 cases per 100,000 population. While the highest mortality rates with over 15 deaths per 1 million population were observed in some states of the US, and in New Brunswick in Canada.

In Central America, the highest incidence and mortality rates was reported in Panama. In South America, some states in Brazil (State of Goiás, State of Santa Catarina, State of Rio Grande do Sul and State of Espírito Santo) and Guarico in Venezuela reported over 100 cases per 100,000 population. At the same time, the State of Roraima in Brazil and some regions in Peru reported the highest mortality rates in the subregion with over 10 deaths per 1M population.

In the Caribbean territories, the overall incidence rate was relatively low. Puerto Rico reported the highest incidence and mortality rates in the subregion.

**Please note, data from Chile is being retro-adjusted and might result in a data artifact in the map*