Monthly COVID-19 Epidemiological Update - Region of the Americas
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Executive Summary

Epidemiological trends below are presented using a 4-week interval, comparing the past four complete epidemiological weeks (EW 22-25 2023; 28 May 2023 – 24 June 2023) to the previous four epidemiological weeks (EW 18-21 2023; 30 April 2023 - 27 May 2023). Data presented in this report should be interpreted with caution, given the global reduction in COVID-19 testing and frequency of epidemiological updates.

- Since the onset of the pandemic in 2020 and up to 28 June 2023, a cumulative total of 768,225,426 COVID-19 cases including 6,946,448 deaths were reported from all six WHO regions. In EW 22-25 2023, approximately 1,009,745 new COVID-19 cases were reported globally. For the same period, 5,936 new COVID-19 deaths were reported globally. (Figure 1)

- In the region of the Americas, 137,590 cases and 1,896 deaths were reported in EW 22-25 2023. At the subregional level, COVID-19 cases increased in Central America subregion.

- The overall monthly case notification rate for the region of the Americas was 13.5 cases per 100,000 population during EW 22-25 (39.3 the previous 4 weeks). Between EW 18-21 and EW 22-25, the 8-week COVID-19 death rate was 7.6 deaths per 1 million population (13.8 the previous eight weeks).

- Among 16 countries/territories in the region with available data, COVID-19 hospitalizations increased in 3 countries and territories (range: 1.7% - 225%) during EW 22-25 compared to the previous 4 weeks. Among 13 countries and territories with available data, COVID-19 ICU admissions increased in 3 countries and territories (range: 13.3% - 100%).

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.
During EW 22-25, 137,590 new COVID-19 cases were reported in the region of the Americas (Figure 2). The highest number of COVID-19 cases in the last 4 weeks was reported from South America (93,774 new cases; -36%). (Table 1). During EW 22-25, the highest proportion of monthly COVID-19 cases at the national level were reported by Brazil (77,022 new cases; -40.6%), Mexico (11,923 new cases; -58.2%), Canada (10,480 new cases; -40.7%).
Table 1: Cases and deaths in EW 22-25 by subregion. Region of the Americas

<table>
<thead>
<tr>
<th>Subregion</th>
<th>Total Cases</th>
<th>Total Deaths</th>
<th>Cases EW 22-25</th>
<th>Deaths EW 22-25</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>115,758,976</td>
<td>1,514,348</td>
<td>22,403</td>
<td>329</td>
</tr>
<tr>
<td>Central America</td>
<td>4,299,106</td>
<td>54,504</td>
<td>14,803</td>
<td>28</td>
</tr>
<tr>
<td>South America</td>
<td>68,470,778</td>
<td>1,351,482</td>
<td>93,774</td>
<td>1,521</td>
</tr>
<tr>
<td>Caribbean and Atlantic Ocean Islands</td>
<td>4,566,070</td>
<td>36,609</td>
<td>6,610</td>
<td>18</td>
</tr>
</tbody>
</table>

For the same period, 1,896 COVID-19 deaths were reported in the region of the Americas (Figure 2). The highest number of COVID-19 deaths in the last 4 weeks was reported from South America (1,521 new deaths, -24%) (Table 1). At the national level, the highest proportion of monthly COVID-19 deaths were reported by Brazil (1,055 new deaths, -9.8%), Peru (250 new deaths, -62.7%), and Canada (212 new deaths, -57.2%).

During EW 22-25, among the 16 countries in the region with available data, 3 countries reported an increase in COVID-19 hospitalizations (range: 1.7% - 225%) compared to the previous 4 weeks. 3 countries in the region reported an increase in COVID-19 ICU admissions (range: 13.3% - 100%). The country with largest increase in COVID-19 hospitalizations in EW 22-25 compared to the previous 4 weeks was Suriname (225% increase, with 26 hospitalizations reported in EW 22-25), and the largest increase in COVID-19 ICU admissions was observed in Suriname (100% increase, with 2 ICU admissions reported in EW 22-25).

A summary of the COVID-19 trends for EW 22-25 by subregion is presented below.

**North America**

The overall trends for COVID-19 cases have been decreasing in Mexico (11,923 cases, -58.2%) and Canada (10,480 cases, -40.7%). For the same period, monthly COVID-19 deaths decreased in North America during EW 22-25 relative to the previous 4 weeks. The largest decline in deaths were reported by Canada (212 new deaths, -57.2%) and Mexico (117 new deaths, -36.8%). United States of America has shifted COVID-19 data reporting, with data available up to May 2023 and therefore excluded from this analysis.

Figure 3: COVID-19 cases and deaths by epidemiological week (EW). North America. Region of the Americas. EW 3 2020 - EW 25 2023.
reported a decrease in its monthly COVID-19 hospitalizations (n=9,672, -28.9%) and a decrease in its monthly ICU admissions (n=1,420, -17.7%). In Canada, monthly hospitalizations decreased, and monthly ICU admissions decreased during EW 22-25 compared to the previous 4 weeks - (2,936 hospitalizations, -7.4% & 157 ICU admissions, -6%).

Central America

In Central America, the overall COVID-19 case incidence for the sub-region is on an upward trend with 14,803 new cases being reported during EW 22-25 – a 48.9% change compared to the previous 4 weeks (Figure 4). The countries with the largest proportion of reported cases these 4 weeks included Guatemala (7,337 new cases, +83.5%), Panama (3,989 new cases, +109%), and Costa Rica (3,385 new cases, -13.6%).

Figure 4: COVID-19 cases and deaths by epidemiological week (EW). Central America. Region of the Americas. EW 6 2020 - EW 25 2023.

During EW 22-25, monthly deaths increased in Panama (11 new deaths, +450%), while it decreased in other countries in the subregion. (Figure 4).

Among four countries/territories with available data for COVID-19 hospitalizations in the Central American subregion, only Panama reported a slight increase in their monthly COVID-19 hospitalizations (1.7%). Among three countries and territories with available data for COVID-19 ICU admissions, Panama reported 50% increase in their monthly COVID-19 ICU admissions.

South America

In South America, the overall COVID-19 incidence for the subregion has decreased by -36.5%, with a total of 93,774 new COVID-19 cases being reported during EW 22-25 compared to the previous 4-week period (Figure 5).

Figure 5: COVID-19 cases and deaths by epidemiological week (EW). South America. Region of the Americas. EW 3 2020 - EW 25 2023.
Out of the 10 countries and territories the sub-region, Bolivia, Colombia, and Ecuador experienced an increase in cases during EW 22-25 (range 55% - 137.9%).

During EW 22-25, a total of 1,521 COVID-19 deaths were reported in South America — a 24.7% change compared to the previous 4 weeks. The largest increase in deaths were reported by Colombia (59 new deaths, 68.6%), followed by Ecuador (12 new deaths, 300%).

Among the 4 countries in the subregion with data available for COVID-19 hospitalizations and COVID-19 ICU admissions, all countries are reporting a decline in hospitalizations and ICU admissions during EW 22-25.

**Caribbean and Atlantic Ocean Islands**

In the Caribbean and Atlantic Ocean Islands sub-region, COVID-19 cases decreased by -76.0% (6,610 new cases) compared to the previous 4 weeks (Figure 6). At the national level, cases increased in 10 out of the 34 countries and territories in the subregion (range: 7.7% - 848.1%) while they declined in the remaining 9 countries and territories (range: -100% - -4.8%).

**Figure 6:** COVID-19 cases and deaths by epidemiological week (EW). Caribbean and Atlantic Ocean Islands. Region of the Americas. EW 6 2020 - EW 25 2023.

For the same period, COVID-19 deaths decreased by -71.9% (18 deaths) in the Caribbean and Atlantic Ocean Islands subregion. Aruba and Guadeloupe observed a relative increase in their monthly deaths in EW 22-25 compared to the previous 4 weeks.

During EW 22-25, among the 12 countries and territories with available data for COVID-19 hospitalizations or COVID-19 ICU admissions, Puerto Rico and Suriname reported an increase in their monthly COVID-19 hospitalizations and ICU admissions.
Immunization

**Figure 7:** Monthly COVID-19 vaccination uptake for the first semester of 2021, 2022 and 2023 in the Region of the Americas

*Figure 7* reports the monthly uptake achieved by all countries and territories against COVID-19 during the first 6 months of 2021, 2022 and 2023. These violin plots showcase the minimum and maximum vaccination rates reported during each month (January-June), where the length of the violin corresponds to the number of countries that fall within that section of the distribution.

The large differences shown between each year reflect the gradual decrease in vaccination uptake, as well as the plateau observed over the past year. Of note:

1. 2021 reports a "staircase" behavior, where vaccination uptake gradually increases across the first semester of the year.
2. 2022 reports an overall decrease in maximum vaccination uptake, and the violin plots become more skewed as the months progress, highlighting the gradual decrease in vaccination rates.
3. 2023 reports a significant decrease in vaccination uptake: the small, zoomed-in represent the maximum uptake do not rise above 1% uptake in all months.

Please note that there are no data points shown for January 2021, as vaccination operations were in their early phases and country-level data were not yet available.

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1 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 of Member States, 580,481 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 June 2023.

The vast majority of SARS-CoV-2 viruses circulating globally belong to 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. Multiple sublineages arising from recombinations involving Omicron viruses have also been described and they now make up the majority of the circulating SARS-CoV-2 viruses worldwide.

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), while Alpha, Beta, Gamma, Delta and the Omicron original lineages are classified as “previously circulating” VOCs². At present, in this classification, no lineage is classified as currently circulating VOC. The recombinant sublineage XBB.1.5 and XBB.1.16 were classified as currently circulating VOIs in January and April 2023, respectively. Risk assessments for both VOIs have been published³,⁴. These risk assessments found that available information does not suggest that XBB.1.5 nor XBB.1.16 have additional public health risk relative to XBB and the other currently circulating Omicron descendent lineages. Additionally, BA.2.75 and CH.1.1 (two BA.2 sublineages), and recombinants XBB, XBB.1.9.1, XBB.1.9.2, and XBB.2.3 are classified as currently circulating VUMs.

Since the introduction of Omicron in the Americas, different sublineages have been predominant and have then progressively been replaced by new sublineages (Figure 8). Currently, most circulating viruses belong to recombinant lineages and, to a lesser extent, BA.5 sublineages, with some circulation of BA.2 sublineages (Figure 8). In fact, in the past eight weeks, recombinant lineages represented 96.6%, 96.9%, 98.5%, and 99.7% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively. During the same period, BA.5 sublineages represented 1.7%, 0.2%, and 0.2% of the characterized samples in North America, the Caribbean, and South America, respectively. The proportion of BA.5 sublineages in Central America during this period is negligible.

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.1.9.2, and VOI XBB.1.16. Since 26 March 2023, VOI XBB.1.5 (and sublineages) represented 68.9%, 70.3%, 83.6%, and 63.5% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively. However, the proportion of XBB.1.5 has been decreasing over the past few weeks (Figure 8). The proportion of VOI XBB.1.16 (and sublineages) and VUMs XBB.1.9.1 and

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³ WHO. XBB.1.5 Updated Rapid Risk Assessment, 24 February 2023. Available at: [https://www.who.int/docs/default-source/coronaviruse/22022024xbb.1.5ra.pdf](https://www.who.int/docs/default-source/coronaviruse/22022024xbb.1.5ra.pdf)

⁴ WHO. XBB.1.16 Initial Risk Assessment. 17 April 2023. Available at: [https://www.who.int/docs/default-source/coronaviruse/21042023xbb.1.16ra-v2.pdf](https://www.who.int/docs/default-source/coronaviruse/21042023xbb.1.16ra-v2.pdf)
XBB.1.9.2 (and sublineages) has been increasing during the past few weeks (Figure 8), in particular in North America. Since 26 March 2023, XBB.1.16 (and sublineages) represented 7.6%, 4.4%, 2.1% and 0.4% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively. During the same period, VUMs XBB.1.9.1 and XBB.1.9.2 (combined and including sublineages) represented 8.9%, 7.5%, 4.5%, and 1.7% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively (Figure 8). Model-based projections estimate that XBB.1.5, XBB.1.16, XBB.1.9.1, and XBB.1.9.2, represent 32.9%, 29.4%, 11.4%, and 13.0% of the US sequences in the two-week period ending 24 June 2023. Additionally, VUM XBB.2.3 has been increasing in proportion over the past few weeks in the US and is projected to represent 10.6% of the sequences in the same two-week period.

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 Omicron main sublineages and selected recombinant variants of interest (XBB.1.5 and XBB.1.16) and variants under monitoring (XBB.1.9.1, XBB.1.9.2 and XBB.2.3) identified by the countries in the Region of the Americas (January 2022 – June 2023)

Source: GISAID

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Figure 9. Number of weekly sequences generated in the Region of the Americas (January 2022 – June 2023)

Source: GISAID
Annex 1: COVID-19 incidence rate per 100,000 population in the region of the Americas from April 2023 to June 2023

This map (Annex 1) represents the COVID-19 case incidence per 100,000 population in the region of the Americas from EW 14 to EW 25 2023.

From EW 14 to EW 17, most countries and territories of the Americas presented incident rates under 250 cases per 100,000 population, except Atacama in Chile, Rio Grande do Sul in Brazil, and some regions of Puerto Rico that showed incident rates between 250 and 1,000 cases per 100,000 population.

From EW 18 to EW 21, all subregions presented a relative decline in incidence rates compared to the previous four weeks. Incident rates with over 250 cases per 100,000 population were only observed in the state of Roraima in Brazil.

From EW 22 to EW 25, incidence rates continued declining in all subregions compared to the previous four weeks. The highest incident rates were observed in Roraima and Tocantins in Brazil, St Lucia, British Virgin Islands and the US Virgin Islands. This data should be examined carefully as many countries and territories have stopped reporting COVID-19 cases in a regular basis.