Executive Summary

- **Since the onset of the pandemic** in 2020 and up to October 04, 2022, a cumulative total of approximately 615.8 million COVID-19 cases including 6.5 million deaths were reported from all six WHO regions. During epidemiological week (EW) 39, cases decreased in all WHO (range: -28.4 - -7.5%) but one region - EURO (13%). COVID-19 deaths decreased in all six WHO regions (range: -23.9 - -2.2% decrease).

- **Globally**, approximately 3,017,434 new COVID-19 cases were reported in EW 39 (September 25, 2022 - October 01, 2022) - a -4.1% decrease compared to EW 38 (September 18, 2022 - September 24, 2022) (Figure 1). For the same period, 8,391 new COVID-19 deaths were reported globally – a -11.7% relative decrease compared to the previous week.

- **In the region of the Americas**, 441,133 cases and 3,745 deaths were reported in EW 39 - a -11.1% decrease in cases and -2.2% decrease in deaths compared to the previous week.

- At the subregional level, COVID-19 cases increased in two subregions – South America (0.8%) Caribbean and Atlantic Ocean Islands (52.7%). COVID-19 Deaths decreased in all (range: -25.9 - -2.5%) but one subregion – North America (5.3%).

- The overall weekly case notification rate for the region of the Americas was 43.1 cases per 100,000 population during EW 39 (48.5 the previous week). Between EW 39 and 38, the 14-day COVID-19 death rate was 7.4 deaths per 1 million population (8 the previous two weeks).

- Among 30 countries/territories in the region with available data, **COVID-19 hospitalizations** increased in 5 countries and territories (range: 0.6% - 246.2%) during EW 39 compared to the previous week. Among 21 countries and territories with available data, COVID-19 **ICU admissions** increased in 6 countries and territories (range: 3.2% - 200%).

Figure 1: COVID-19 cases and deaths by epidemiological week (EW) of report and WHO region. EW 4, 2020 - EW 39, 2022.
During EW 39, 441,133 new **COVID-19 cases** were reported in the region of the Americas - a relative decrease of -11.1% compared to previous week (**Figure 2**). The highest number of COVID-19 cases in the last week was observed in North American subregion (334,110 cases, -14% decrease) compared to the previous week. (**Table 1**). During EW 39, the highest proportion of weekly COVID-19 cases were reported by the United States of America (312,125 new cases, -15.3% decrease), Brazil (48,097 new cases, 6.1% increase), Chile (24,409 new cases, 22.9% increase).

**Table 1**: Weekly change (%) in cases and deaths between EW 38 and EW 39 by subregion. Region of the Americas

<table>
<thead>
<tr>
<th>Subregion</th>
<th>Total Cases</th>
<th>Total Deaths</th>
<th>Cases EW 38</th>
<th>Deaths EW 38</th>
<th>Cases EW 39</th>
<th>Deaths EW 39</th>
<th>% Change Cases</th>
<th>% Change Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caribbean and Atlantic Ocean Islands</td>
<td>4,199,396</td>
<td>35,084</td>
<td>7,416</td>
<td>80</td>
<td>11,325</td>
<td>78</td>
<td>52.7%</td>
<td>-2.5%</td>
</tr>
<tr>
<td>Central America</td>
<td>3,977,919</td>
<td>53,425</td>
<td>12,181</td>
<td>78</td>
<td>11,099</td>
<td>69</td>
<td>-8.9%</td>
<td>-11.5%</td>
</tr>
<tr>
<td>North America</td>
<td>106,454,510</td>
<td>1,423,736</td>
<td>392,567</td>
<td>2,807</td>
<td>334,110</td>
<td>2,956</td>
<td>-14.9%</td>
<td>5.3%</td>
</tr>
<tr>
<td>South America</td>
<td>63,838,420</td>
<td>1,326,904</td>
<td>83,886</td>
<td>866</td>
<td>84,599</td>
<td>642</td>
<td>0.8%</td>
<td>-25.9%</td>
</tr>
</tbody>
</table>

For the same period, 3,745 **COVID-19 deaths** were reported in the region of the Americas - a relative decrease of -2.2% compared to previous week (**Figure 2**). The highest number of COVID-19 deaths in the last week was reported from the North American subregion (2,956 deaths, 5% increase) (**Table 1**). At the national level, the highest proportion of weekly COVID-19 deaths were reported from the United States of America (2,728 new deaths, 6.3% increase), Brazil (286 new deaths, -36.4% decrease), and Canada (193 new deaths, -2.5% decrease).

**A summary of the COVID-19 trends for EW 39 by subregion is presented below.**
North America

The overall trends of **COVID-19 cases** in North America have been decreasing since mid-July 2022, with a total of 334,110 new cases (-14.9% decrease) being observed during EW 39. During EW 39, two countries reported a decline in cases – Mexico (3,778 cases, -44 % decrease) and the United States of America (312,125 cases, -15.3 % decrease) – while Canada reported a slight increase in cases (18,207 cases, 5.1 % increase) during EW 39 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 39, 2022.

For the same period, **weekly COVID-19 deaths** have increased by 5.3% (2,956 new deaths) in the subregion, primarily due to an increase of deaths observed in the United States of America during EW 39 relative to the previous week. While two countries reported a decline in deaths – Mexico (35 new deaths, -18.6% decrease) and Canada (193 new deaths, -2.5% decrease), the United States of America observed a 6.3% increase in deaths (2,728 new deaths) during EW 39 compared to the previous week.

During EW 39, among the two countries in North America with available data for **COVID-19 weekly hospitalizations and ICU admissions**, the United States of America continued to observe a decline in both hospitalizations (n=28,495; -5.8% decrease) and ICU admissions (n=3,436; -6.1% decrease). On the other hand, Canada reported a slight increase in weekly hospitalizations (n=4,792; 9.9% increase) including ICU admissions (n=256; 9.4% increase) during EW 39 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 81.3% and 13.9% (including 12.8% of BA.4.6) of cases for the week ending on 1 October 2022 in the United States of America\(^1\), 88% and 9% for the week of 11 September 2022 in Canada\(^2\), and 91.5% and 6.8% as of EW 35 in Mexico, respectively.

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Central America

In Central America, the overall COVID-19 incidence for the sub-region continued to be on a downward trend with 11,099 new cases reported during EW 39 – a -8.9% 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 39, 2022.

During EW 39, one country – Guatemala – in the subregion experienced an increase in weekly cases (5,190 new cases, 16% increase), while the remaining five countries and territories reported a decline in cases compared to the previous week (range: -89 - -12.5% decrease). The largest decrease in weekly cases was observed from Honduras (55 new cases, -89% decrease), followed by Nicaragua (25 new cases, -54.5% decrease), and Panama (747 new cases, -29% decrease) compared to the previous week. No cases have been reported from El Salvador during EW 39. Please note that data for Honduras for the complete EW 39 were not publicly available, resulting in a data artifact in percent change in weekly cases/deaths for EW 39.

For the same period, weekly deaths decreased by approximately -11.5% relative to the previous week (Figure 4), with two out of the seven countries and territories reporting an increase – Honduras (1 new death, 100%) and Guatemala (47 new deaths, 2.2% increase). The remaining five countries and territories reported a decline in deaths during EW 39 compared to the previous week (range: -100 - -28.6% decrease).

Among four countries/territories with available data for weekly COVID-19 hospitalizations in this subregion, two countries reported an increase in weekly hospitalizations – Belize (2 hospitalizations, 100% increase) and Honduras (29 hospitalizations, 31.8 % increase), while there were no substantial changes observed in Costa Rica (178 hospitalizations, -4.8% decrease) and Panama (77 hospitalizations, -12.5% decrease) during EW 39 compared to the previous week. In terms of weekly COVID-19 ICU admissions, all three countries with available data for ICU admissions did not report any substantial changes during EW 39 – Honduras (3 ICU admissions, 200% increase), Costa Rica (32 ICU admissions, 3.2% increase), and Panama (8 ICU admissions, 14.3% increase) 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, there were no substantial changes in COVID-19 weekly cases in the subregion – reporting a 0.8% increase in cases (84,599 new cases) during EW 39 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 39, 2022.

Out of the 10 countries and territories in the sub-region, four countries reported an increase in weekly cases during EW 39, with the largest increase in cases being reported by Paraguay (484 cases, 868% increase), followed by Venezuela (Bolivarian Republic of) (398 new cases, 26.3% increase), and Chile (24,409 new cases, 22.9% increase). Please note that reported weekly cases (484 cases) from Paraguay during EW 39 include historical cases that the respective ministries of health published retroactively (456 cases), resulting in a data artifact in percent changes during EW 39 compared to the previous week.

During EW 39, COVID-19 weekly deaths in the subregion have declined for the seventh consecutive week, with a total of 642 COVID-19 deaths being reported – a -25.9% decrease compared to the previous week. In the subregion, three countries reported an increase in weekly deaths – Chile (132 new deaths, 7.3% increase), Ecuador (7 new deaths, 40% increase), and Colombia (25 new deaths, 8.7% increase). The remaining seven countries and territories reported a decline in deaths (range: -100 - -4.8% decrease).

For the same period, among five countries and territories in the subregion with data available for COVID-19 weekly hospitalizations, four reported a decline (range: -20.7 - -4.9% decrease), while one country – Colombia – reported no substantial changes (508 hospitalizations, 0.6% increase) relative to the previous week. Two of the six countries and territories with data available for COVID-19 ICU admissions reported an increase – Uruguay (14 ICU admissions, 27.3% increase) and Colombia (107 ICU admissions, 8.1% increase) – while the remaining four countries reported a decline (range: -21.7 - -4.5% decrease) 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).

In the Caribbean and Atlantic Ocean Islands sub-region, **weekly cases** increased by 52.7%, primarily due to Puerto Rico and Dominica (Figure 6). At the national level, cases increased in 8 out of the 34 countries and territories in the subregion (range: 5.4% - 250%) while they declined in 20 countries and territories (range: -100% - -8.3%). The remaining six countries and territories either did not report any substantial changes or had not reported any cases during EW 39 compared to the previous week. Please note that reported cases/deaths (895 new cases, 6 new deaths) from Dominica include new cases/deaths between EW 26, 2022 and EW 39, 2022 since the data were not publicly available during the period.

During EW 39, **COVID-19 weekly deaths** decreased by -2.5% (78 deaths) in the subregion relative to the previous week. Six countries and territories observed a relative increase in their weekly deaths in EW 39 (range: 2.4 – 100% increase). Weekly deaths either remained the same (n=22) or declined in the remaining countries and territories of the subregion (n=6, range: -100 – -12.5% decrease).

For the same period, 19 countries and territories with available data for **weekly COVID-19 hospitalizations** reported either a decline (n=7, range: -100 - -3.9% decrease) or no changes (n=12) in weekly hospitalizations. Similarly, among 10 countries and territories with data available, one – Trinidad and Tobago – observed an increase (8 ICU admissions, 33.3% increase) in **COVID-19 ICU admissions** during EW 39 compared to the previous week. The remaining nine countries either remained the same (n=2) or reported a decline (n=7, range: -100 - -20% decrease).

**Notable increases** in weekly cases in the subregion during EW 39 were reported from Anguilla (7 new cases, 250% increase) and Puerto Rico (7,583 new cases, 179.7% increase) relative to the previous week.

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. Improvement in national vaccination coverage rate against COVID-19 over the last 12 months (October 2021 to September 2022) by country/territory. The Region of the Americas. From October 2021 to September 2022.

Approximately one year ago, WHO published global targets for national COVID-19 vaccination coverage. The thresholds were: 10% coverage by September 2021, 40% by December 2021, and 70% by June 2022*. This figure describes the improvement that each country or territory in the Region reported over the last 12 months, starting from October 2021 up to 30 September 2022.

- By September 2021, 48 countries or territories had reached the 10% target set by WHO.**
- By December 2021, 36 had reached the 40% target.
- By June 2022, 17 had reached the 70% target.

Among the 51 countries and territories, 36 immunized a greater proportion of their population in the months leading up to September 2021, compared to the following 12-month period up to September 2022.

At the regional level, the average increase in coverage rate between October 2021 and September 2022 was 21% with a standard deviation of 15%. This is a deceleration compared to the period before September 2021, when the average increase in vaccination rate was 39% with a standard deviation of 20%.


** 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, 458,113 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 4 October 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 seven non-Omicron sequences have been detected (five Delta VOC and one Alpha VOC in North America, one Delta VOC in South America).

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

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: 49.8% of BA.1 (and BA.1 sublineages), 27.1% of BA.2 (and sublineages), 0% of BA.3 (and sublineages), 4.0% of BA.4 (and BA.4 sublineages), and 19.2% 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 (and sublineages) combined represent 98.3%, 95.5%, 99.4%, and 94.4% 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.

**Spotlight: Sequencing and genomic surveillance in the Caribbean subregion**

During the last 21 months (January 2021 to 1st October 2022), 50,658 whole genome sequences from the Caribbean countries and territories 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 four weeks (Figure 10). Since Omicron’s first detection, BA.1 and BA.1 sublineages represent the majority (41.8%) of cumulative sequences, while BA.2 and BA.2 sublineages represent 35.8% of the cumulative sequences, and BA.3, BA.4, and BA.5 (with their respective sublineages) represent <0.1%, 5.7%, and 16.7% of cumulative sequences, respectively (Figure 11). However, BA.1 was progressively replaced by BA.2 in weeks 10 to 15, and the proportion of BA.4 and BA.5 have been increasing since week 19 (Figure 12). When focusing on the past eight weeks, BA.5 is the predominant sublineage (70.8%) while BA.4 accounts for 27.5% of the sequences. In the same period, BA.2 and BA.3 only represent 0.8% of the sequences each and BA.1 was not identified in any of the sequences. It is important to note that the majority of sequences for the 8-week period was contributed by the Trinidad and Tobago (31.7%).

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

Source: GISAID
**Figure 10.** Variants detected and reported by the countries in the Caribbean (January 2021-October 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 Caribbean subregion (November 2021-October 2022)

Source: GISAID
Figure 12. Distribution of VOC Omicron sublineages identified by the countries in the Caribbean subregion (January-October 2022)

Source: GISAID

The maps (Annex 1) compare the monthly COVID-19 incident rates per 100,000 population in the region of the Americas for the months of August and September 2022. Overall, at the regional level we observed a decrease in COVID-19 incidence over time in the last two months. The subregion with the largest relative decrease in incidence over the two-month period was South America. From August to September 2022, the countries in South America with the highest relative decrease in incidence (>80% decrease) were Bolivia, Paraguay, and Peru.

The Central American subregion and the Caribbean subregion experienced a decrease in incidence rates from August to September 2022, with about 50% decrease at the subregional level. The countries/territories showing the largest relative decreases (>80%) in the Caribbean region were the British Virgin Islands, Turks and Caicos Islands, Saint Martin, Haiti, Guadeloupe, Barbados, Saint Barthelemy, Anguilla, and Aruba. The countries/territories showing the largest relative decrease (>80%) in Central America were El Salvador and Honduras.

The North American subregion also experienced a relative decrease in incidence rates of ~40% from August to September 2022. The country in the subregion with the largest relative decrease was Mexico.

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.