Weekly COVID-19 Epidemiological Update - Region of the Americas

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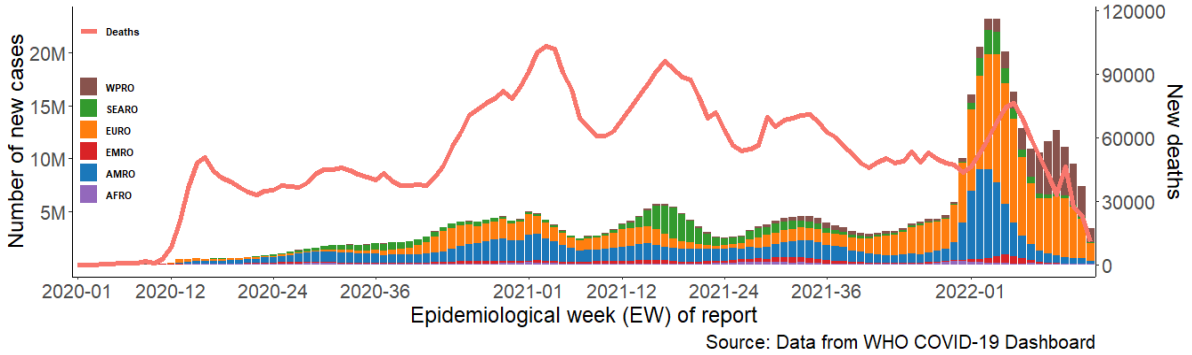
Executive Summary

- **Since the onset of the pandemic** in 2020 and up to April 19, 2022, a cumulative total of over 500 million COVID-19 cases including approximately 6.2 million deaths were reported from all six WHO regions. During EW 15, cases and deaths decreased in all WHO regions.
- **Globally,** approximately 5.6 million new COVID-19 cases were reported in epidemiological week (EW) 15 (April 10, 2022-April 16, 2022), which was a 24.3% decrease compared to EW 14 (April 03, 2022-April 09, 2022) (**Figure 1**). For the same period, 18,215 new COVID-19 deaths were reported globally – a 21.4% relative decrease compared the previous week.
- **In the region of the Americas,** 490,525 cases and 4,797 deaths were reported in EW 15, which represent 2.2% decrease in cases and 15.2% decrease in deaths compared to the previous week.
- At the subregional level, there was a **11.2% increase in cases in North America** – primarily in the United States of America – while the trend declined across the other three subregions during EW 15. For the same period, while the **Caribbean and Atlantic Ocean Islands subregion reported a 38.9% increase in weekly deaths** – primarily in Jamacia and Trinidad & Tobago – the trends declined in the remaining three subregions.
- The overall weekly case notification rate for the region of the Americas continued to decline with 48 cases per 100,000 population reported during EW 15 (49.1 the previous week). The 14-day COVID-19 death rate also declined in the region with 10.2 deaths per 1 million population reported during EW 14 and EW 15 (12.8 the previous two weeks).
- Among 36 countries/territories in the region with available data, **COVID-19 hospitalizations** increased in three countries and territories (range: 20.2% - 85.7%). Among 30 countries and territories with available data, **COVID-19 ICU admissions** increased in three countries and territories (range: 6.5% - 20%).
- As of April 15, 2022, the cumulative vaccination rates with completed schedule per 100 people in the Region of the Americas ranged from 1.1 to 93.5%.[1] (paho.org)

Figure 1: COVID-19 cases and deaths by epidemiological week (EW) of report and WHO region. As of EW 15, 2022.

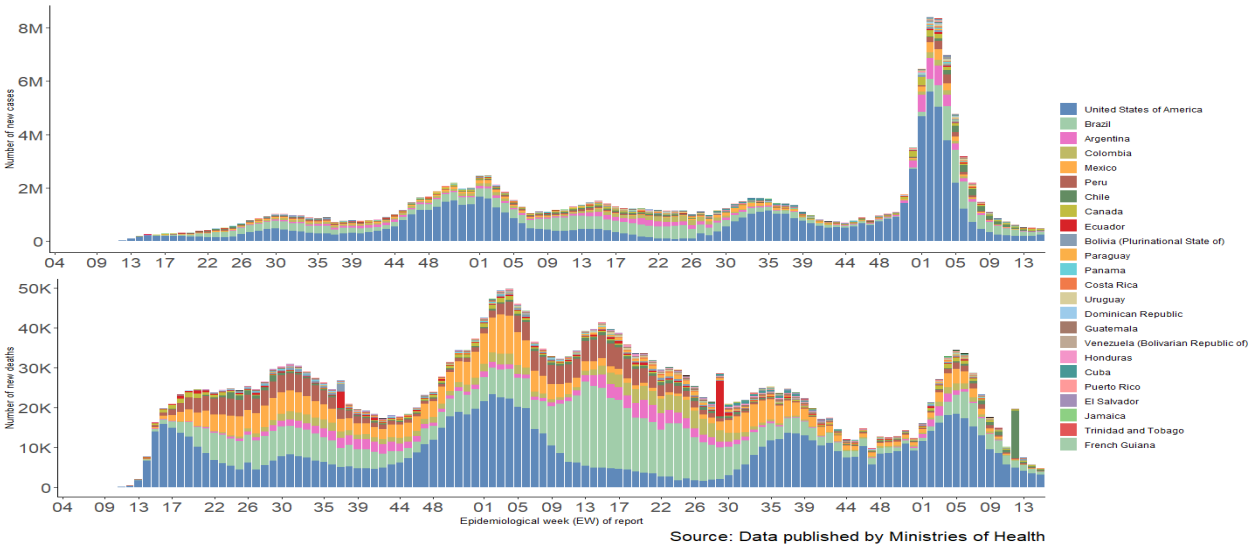


Source: Data from WHO COVID-19 Dashboard

[1] Completed schedule represents the % of population who received the last recommended dose of any vaccine or completed their schedule. This includes the second dose if it is a two-dose schedule and the single dose in a single-dose schedule.

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. As of EW 15, 2022.



During EW 15, 490,525 new **COVID-19 cases** were reported in the region of the Americas – a 2.2% relative decrease compared to previous week **(Figure 2)**. Among the subregions, North America reported a 11.2% increase in weekly cases while also contributing the highest number of new COVID-19 cases (301,186 cases) (**Table 1**). Cases declined in the other three subregions. The highest proportion of weekly COVID-19 cases at the national level were reported by United States of America (245,594 new cases, 24% increase), Brazil (123,339 new cases, -17.1% decrease), Canada (53,391 new cases, -22.2% decrease).

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

Subregion	Total Cases	Total Deaths	Cases EW 14	Deaths EW 14	Cases EW 15	Deaths EW 15	% Change Cases	% Change Deaths
Caribbean and Atlantic Ocean Islands	3,367,385	32,592	21,160	54	20,267	75	-4.2%	38.9%
Central America	3,106,116	49,883	11,088	102	6,866	85	-38.1%	-16.7%
North America	89,223,700	1,345,999	270,890	3,758	301,186	3,335	11.2%	-11.3%
South America	56,335,648	1,288,968	198,717	1,745	162,208	1,302	-18.4%	-25.4%

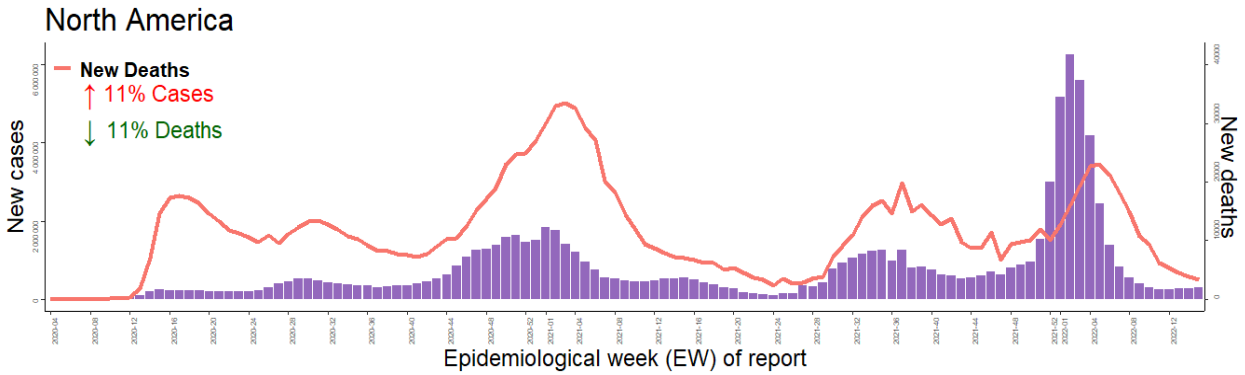
For the same period, 4,797 **COVID-19 deaths** were reported in the region of the Americas – a relative decrease of -15.2% compared to previous week **(Figure 2)**. While deaths increased in the Caribbean and Atlantic Ocean Islands subregion by 38.9% during EW 15, it declined in the other three subregions (range: -25.4% - 16.7%) (**Table 1**). The countries and territories with the highest proportion of weekly COVID-19 deaths were United States of America (3,076 new deaths, -8.6% decrease), Brazil (785 new deaths, -29.9% decrease), and Chile (234 new deaths, -24% decrease).

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

North America

The overall trends for **COVID-19 cases** have been increasing in North America for the last three consecutive weeks, with 301,186 new cases reported during EW 15 – an 11.2% increase compared to EW 14 (**Figure 3**). The increase was primarily due to rising trends in the United States of America (245,594 cases, 24% increase), which also reported the largest proportion of cases in the entire region. After three weeks of increasing trends in cases, Canada reported a 22.2% decrease during EW 15 compared to the previous week. Mexico continued to report a decrease in cases since the beginning of 2022 (2,201 cases, -47% decrease).

Figure 3: COVID-19 cases and deaths by epidemiological week (EW). **North America.** Region of the Americas. EW 3, 2020 - EW 15, 2022.



Weekly COVID-19 deaths decreased by 11.3% in North America during EW 15 compared to the previous week (**Figure 3**). The largest decline in deaths was observed in Mexico (29 new deaths, -65.9% decrease), followed by Canada (230 new deaths, -24.8% decrease), and the United States of America (3,076 new deaths, -8.6% decrease).

Weekly data for COVID-19 hospitalizations and Intensive Care Unit (ICU) admissions are available in Canada and the United States of America. Canada observed an increase in their weekly COVID-19 hospitalizations (5,958 hospitalizations, 20% increase) and ICU admissions (440 ICU admissions, 11.7% increase) despite the decrease in COVID-19 cases during EW 15. According to the Public Health Agency of Canada (PHAC), the percentage of the Omicron Variant of Concern (VOC) detected in Canada is approximately 100% since February 2022.2 In particular, the proportion of the sub-variant BA.2 surpassed the sub-variant BA.1.1 since March 20, 2022.[2] In the United States of America, hospitalizations and ICU admissions decreased by 1.8% and 8.4%, respectively relative to the previous week.

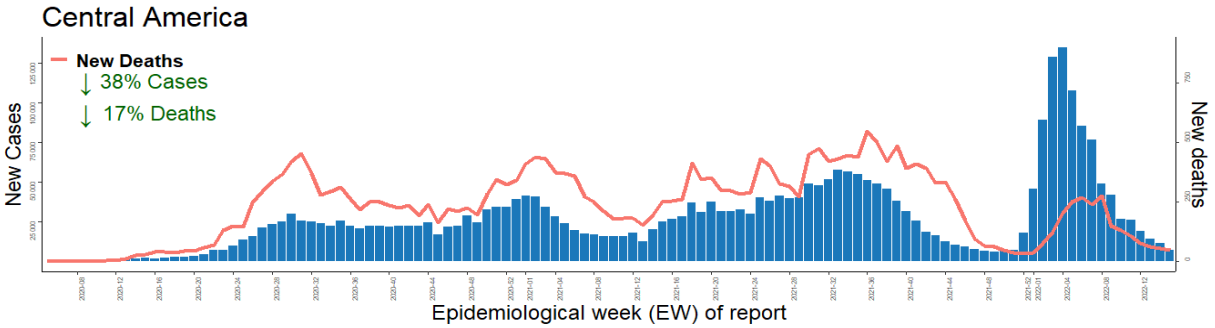
Central America

In Central America, the overall COVID-19 incidence for the sub-region has been on a downward trend since the beginning of 2022, with 6,866 new cases reported during EW 15 – a 38.1% decrease compared to the previous week (**Figure 4**).

Out of the seven countries and territories in the subregion, **COVID-19 cases** increased in two countries – Panama (1,966 cases, 17.5% increase) and El Salvador (519 cases, 0.2% increase). The countries with the largest decline in cases this week included Costa Rica (1,408 new cases, -65.8% decrease) and Guatemala (2,896 new cases, -37% decrease). Data for Honduras was not publicly available since as of April 8, 2022, resulting in a data artifact for weekly changes in both cases and deaths.

[2] Public Health Agency of Canada (PHAC) COVID-19 daily epidemiology update. Accessed 19 April 2022. Available at: https://bit.ly/3JYm3B0

Figure 4: COVID-19 cases and deaths by epidemiological week (EW). **Central America. Region of the Americas.** EW 6, 2020 - EW 15, 2022.



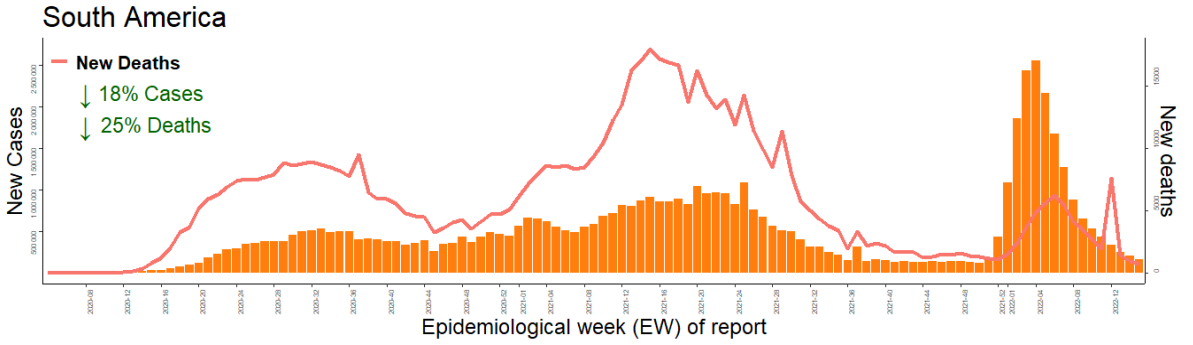
For the same period, **weekly deaths** decreased by approximately 16.7% relative to the previous week (**Figure 4**). Two out of the seven countries and territories reported an increase in their weekly deaths – El Salvador (3 deaths, 50% increase) and Guatemala (55 deaths, 12.2% increase). The remaining countries did not have a substantial change in their weekly deaths (Nicaragua, Belize, and Panama; 0%) or reported a decline (Costa Rica; 14 deaths, 60% decrease).

Among four countries and territories with available data for **weekly COVID-19 hospitalizations and ICU admissions** in the Central America, two countries reported an increase in their weekly COVID-19 hospitalizations – Belize (4 hospitalizations, 100% increase) and Panama (100 hospitalizations, 22% increase). In terms of weekly COVID-19 ICU admissions, Belize reported 2 ICU admissions (100% increase) in EW 15, while the remaining three countries reported either a decline or the same (Panama, Costa Rica, and Honduras).

South America

In South America, a total of 162,208 new COVID-19 cases were reported during EW 15 – a 18.4% 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 15, 2022.



Out of the 10 countries and territories the sub-region, two countries experienced an increase in **new COVID-19 cases** during EW 15 – Ecuador (2,643 cases, 13.7% increase) and Peru (3,878 cases, 21.8% increase). The largest decline in cases was reported by Uruguay (2442 new cases, -44.1% decrease), followed by Bolivia (the Plurinational State of) (582 new cases, -32.2% decrease). Please note that EW 15 data for Paraguay is not available at this time, resulting in a data artifact for both cases and deaths.

During EW 15, a total of 1,302 **COVID-19 deaths** was reported in South America – a 25.4% decrease compared to the previous week. The largest decline in deaths was reported by Argentina (3 new deaths, -72.7% decrease), followed by Colombia (38 new deaths, -43.3% decrease). Ecuador reported 60 deaths in EW 15 for a relative increase of 160.9%

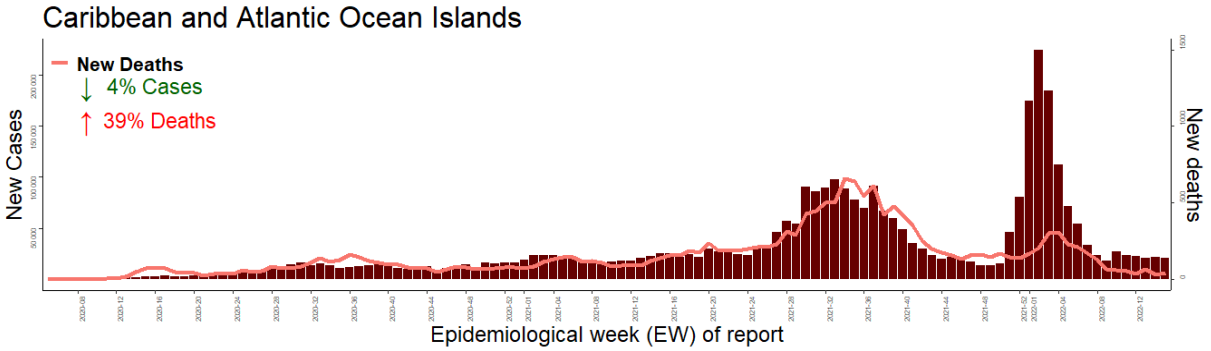
compared to the previous week – however, more than half of those deaths were attributed to having occurred between 2020 and 2021 – leading to the artificial increase in the weekly trends.

Among the countries and territories with data available for **COVID-19 hospitalizations**, two countries and territories out of six reported an increase in their weekly COVID-19 hospitalizations – Paraguay (37 hospitalizations, 100% increase) and Ecuador (249 hospitalizations, 15.8% increase). The remaining four countries and territories experienced declining trends in their weekly hospitalizations (range: 19.4 - 2.8%). Similarly, two countries out of eight countries/territories reported an increase in **weekly COVID-19 ICU admissions** – Paraguay (3 ICU admissions, 100% increase) and Venezuela (Bolivarian Republic of) (111 ICU admissions, 5.7% increase). The remaining six countries/territories reported declining trends (range: 25.5 - 8.4%).

Caribbean and Atlantic Ocean Islands

In the Caribbean and Atlantic Ocean Islands sub-region, **COVID-19 weekly cases** decreased by 4.2% and weekly deaths increased by 38.9% compared to the previous week (**Figure 6**). At the national level, cases increased in 17 out of the 34 countries and territories in the subregion (range: 3.6% - 191.7%), while it remained the same (Turks and Caicos Islands) or declined in the remaining 14 countries and territories (range: -100% - -3.4%).

Figure 6: COVID-19 cases and deaths by epidemiological week (EW). **Caribbean and Atlantic Ocean Islands.** Region of the Americas. EW 6, 2020 - EW 15, 2022.



Out of 33 countries and territories in the Caribbean and Atlantic Ocean Islands subregion with reported **COVID-19 deaths**, eight observed a relative increase in their weekly deaths during EW 15 for an overall sub-regional increase of 38.9% (75 new deaths) compared to the previous week. Jamacia (24 new deaths, 166.7% increase) and Trinidad and Tobago (24 new deaths, 20% increase) contributed the highest proportion of weekly deaths during EW 15. Among the remaining countries and territories, 18 reported no deaths during EW 15 and seven reported a decrease (range: -100% – -40%).

Among the countries and territories with available data for **COVID-19 hospitalizations**, three countries and territories out of 24 reported an increase in their weekly COVID-19 hospitalizations – Puerto Rico (104 hospitalization, 85.7% increase), Grenada (4 hospitalization, 100% increase), and United States Virgin Island (4 hospitalizations, 300% increase). Similarly, four countries and territories out of 16 with available data for **COVID-19 ICU admissions** reported an increase in their weekly COVID-19 ICU admissions (range: 6.5% – 100%).

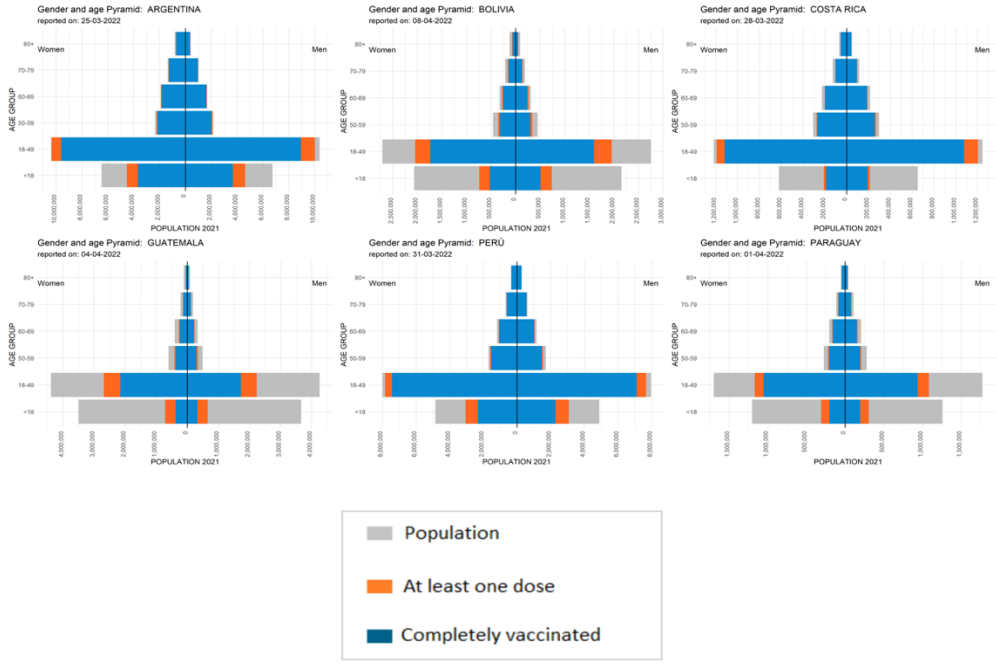
During EW15, **significant increases in new cases /deaths this week for the subregion** were observed in Suriname (35 cases, 191.7% increase), Haiti (29 cases, 163.6% increase), and Grenada (141 cases, 100% increase) for new cases, and Jamaica (24 deaths; 166.7% increase) for new deaths. These four countries/territories have vaccinated less than approximately 40% of their population with a completed schedule of the COVID-19 vaccines (range: 1.1 – 40.1%).**Error! Bookmark not defined.**

For the same period, **important increases in severity trends** were observed in United States Virgin Island (4 hospitalizations; 300% increase & 2 ICU admissions; 100% increase), Grenada (4 hospitalizations; 100% increase), and Puerto Rico (104 hospitalizations, 85.7% increase).

Immunization

Figure 7 shows the distribution of COVID-19 vaccination rate and population by age & gender, and country in the region of the Americas. It highlights the countries and territories that consistently share disaggregated COVID-19 vaccination data by age group and gender.

Figure 7: Distribution of COVID-19 vaccination rate and population by age and gender by country. Region of the Americas. As of EW 15, 2022.



Source: Data published by Ministries of Health and analyzed by PAHO/WHO Immunization.

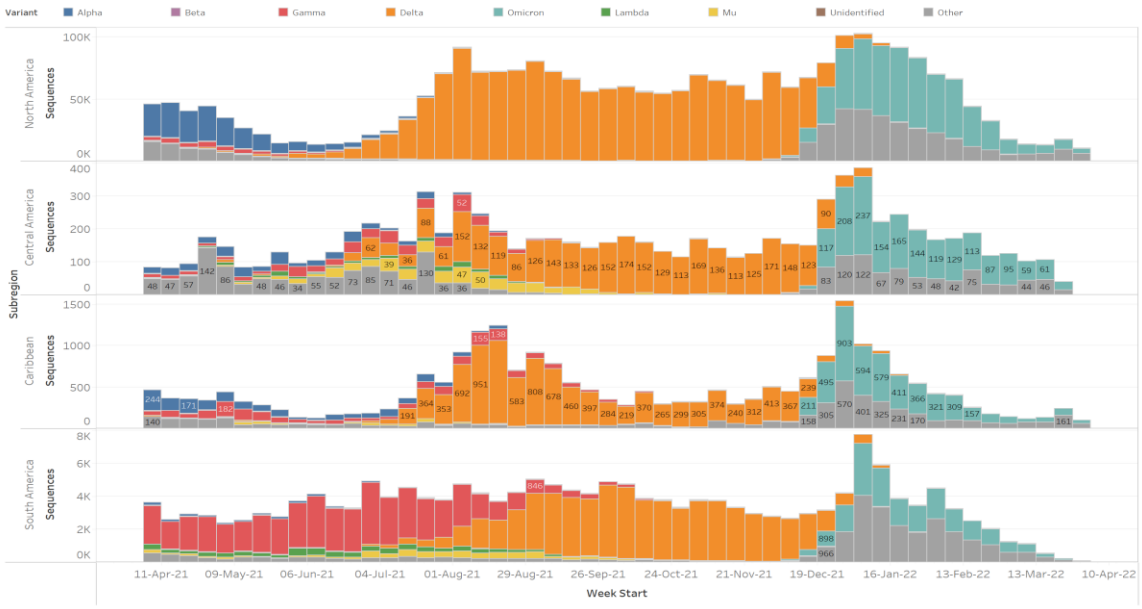
Across all six countries, a light skew of vaccination rate is observed among women. The plots suggest that a higher number of women received one or more COVID-19 vaccine doses compared to men, although the difference is not statistically significant. These population pyramids report that the drop-out rate between doses is small in each of the six countries. Nonetheless, consistent with the data reported in last week's situational report, it is observed that countries reporting high portion of the eligible population with 0 doses (i.e., gray area), need to increase the reach of their vaccination programs to achieve the WHO target set for June 2022. Completing the schedules of people who have yet to receive the first/second/third dose might still not be enough to reach 70% coverage. Sharing increasingly disaggregated information allows PAHO to provide more accurate analysis and specific recommendations to countries and territories. The age groups utilized for this analysis differ from a traditional population pyramid due to the nature of COVID-19 vaccination rollout across the region. Where target groups were not evenly spaced but responded to priority vaccination groups and vaccine availability.

Genomic Surveillance

Through PAHO's Genomic Surveillance Regional Network and the work from the Member States, more than 321,683 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 2022.

After the introduction of the Omicron VOC in the Americas by the end of December 2021, it has rapidly increased in prevalence and has been officially reported by 53 Countries or Territories **(Figure 8**). Omicron now represents the vast majority of sequences detected in the PAHO Region, outcompeting Delta and other lineages. In fact, the last documented detection of Delta was on 6 April 2022 in North America.

Figure 8. Distribution of SARS-CoV-2 variants by subregion. Region of the Americas. April 2021-March 2022



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

Spotlight: Omicron Sub-linages and recombination events

As expected, the highly transmission pattern demonstrated for Omicron has facilitated the occurrence of additional mutations driving the emergence of different sublineages classified into the same variant (i.e., Omicron). So far (April 18), five (5) different main sublineages of Omicron classified as BA.1 (including BA.1.1), BA.2, BA.3, BA.4 and BA.5 have been reported globally.

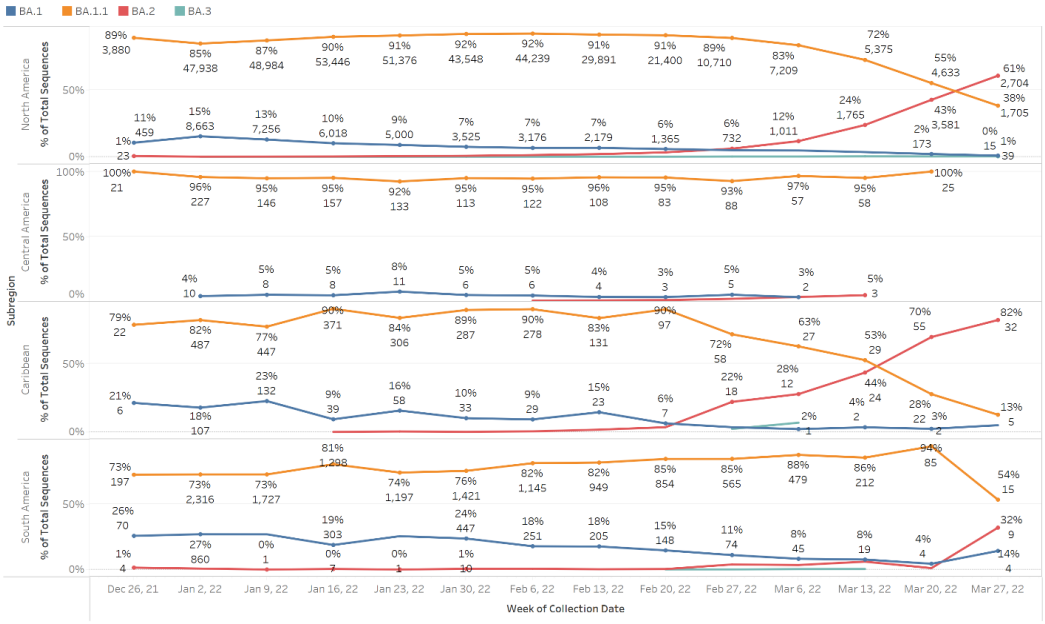
Although BA.2 is predominant in most of the Regions at global level (Africa, Asia, Europe, Oceania), in the Americas the sublineages BA.1 and BA.1.1 are still predominant and have been identified in more than 97.5% of the characterized samples since Omicron introduction. However, the proportions of BA.2 have been increasing in all subregions (Figure 9) and in the last four weeks (March 20 – April 16) it represents 38% of the Omicron samples in Latin America (50% in North America).

The most recently described sublineages BA.4 and BA.5 were first reported on April 04 in South Africa and have apparently been circulating since January 2022. So far, around 135 Omicron BA.4 / BA.5 sequences have been reported mostly from

South Africa, but also few samples from Botswana, Denmark, Germany, United Kingdom, Belgium, Iraq, Israel, Nepal, Switzerland, Turkey, USA, and Australia.

BA.4 and BA.5 sublineages share a similar Spike (S) protein gene profile as BA.2, except for some additional mutations (69-70del, L452R, F486V) including one similar to the original wild type of index virus identified at the end of 2019 (Q493).

Figure 9. Prevalence of Omicron sublineages by Subregion. Region of the Americas. January-March 2022



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

Recombination events:

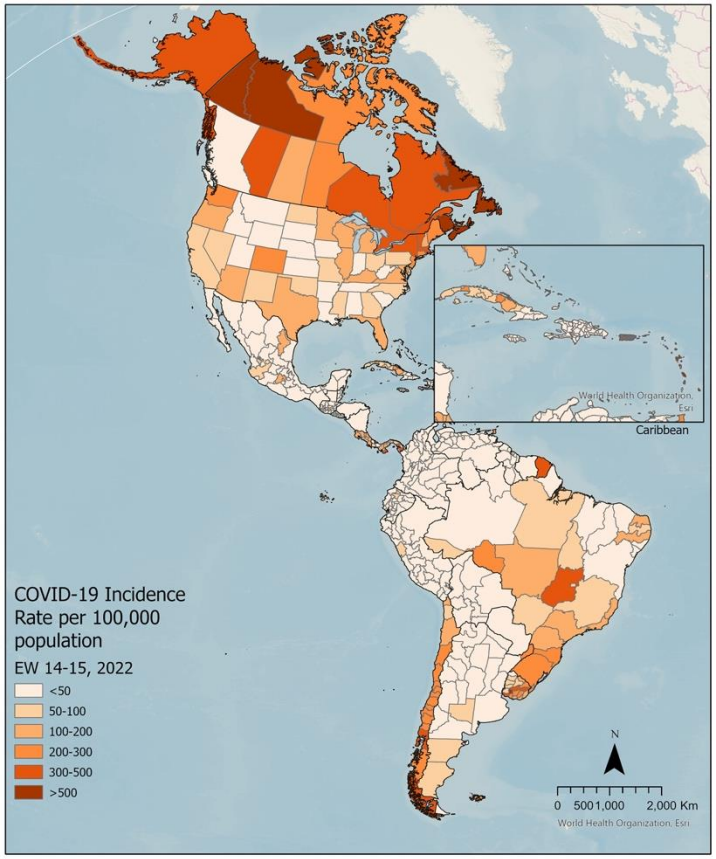
On 8 February 2022, a recombination event between the variants of concern (VOC) Delta and Omicron was reported in Europe. Although the event was described for the first time in France, it is not clear yet where the first emergence of the recombinant occurred. The virus sequence indicates mainly Delta genes (sublineage AY.4) with most of the Spike protein gene (S) corresponding to Omicron (sublineage BA.1).

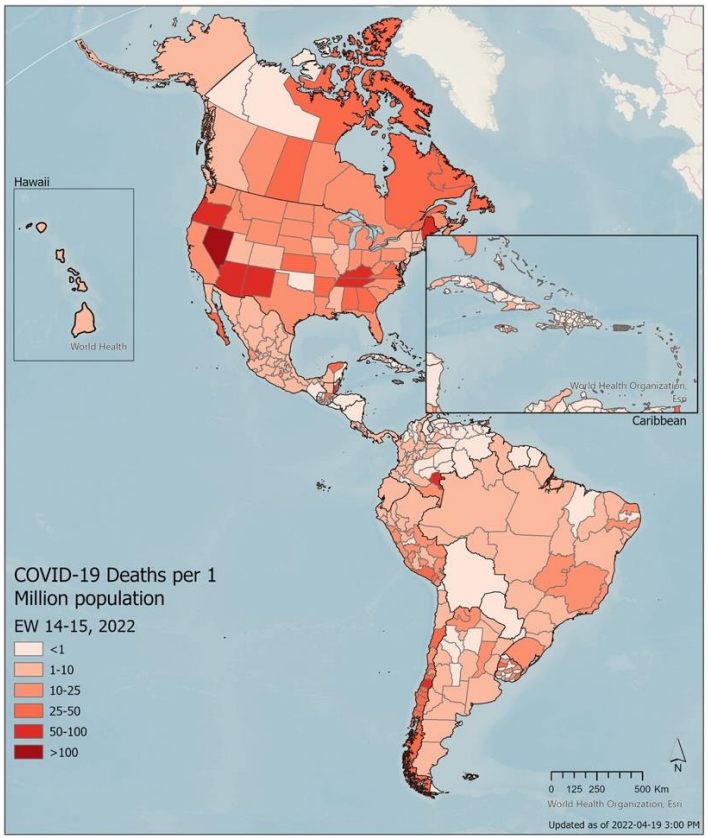
Similar recombinants (currently denominated XD) were documented in clusters reported in Denmark and the Netherlands, as well as in isolated cases in Belgium and Germany. It is not yet clear if these viruses derive from a common ancestor or if they correspond to different recombination events.

On the other hand, the simultaneous high circulation of BA.1 and BA.2 has facilitated the occurrence of recombination between these 2 sublineages and the event has already been demonstrated in different countries including the United Kingdom where at least 6 different recombinants have been described (depending on the recombination sites), denominated XE, XR, XL, XN, XP and XQ with XE the most detected at the country level. Denmark (XG, XH), Finland (XJ), Belgium (XK), and Netherlands (XM), have also detected additional recombination events. At PAHO Region, one XE case have been reported by Brazil and additional signals still to be confirmed have been reported in Costa Rica (possible XE).

Currently, there is no evidence that indicates a significant increased transmission capacity, or changes in the clinical form or severity of the disease due to infection with this recombinant virus, and all public health control measures including vaccines remain highly efficient and should be maintained. Also, the recommendation to maintain and enhance genomic surveillance for the early detection of any change in viral sequences and viral behavior is reiterated.

Annex 1: Maps of the COVID-19 incidence rate per 100,00 population and the mortality rate from COVID-19 per 1 million population in the Region of the Americas reported in EW 14 and 15





The maps (**Annex 1)** represent the COVID-19 incidence rate per 100,00 population and the mortality rate from COVID-19 per 1 million population in the Region of the Americas reported in EW 14 and 15. Over the past two weeks, territories in Canada reported among the highest incidence and mortality rates in the region (most provinces and territories reported over 300 cases per 100,00 people and above 10 deaths per million people). Relatively high mortality rates were also observed in the United States (especially Nevada reporting over 100 deaths per million people), Belize (with the districts of Cayo and Toledo reporting between 50 and 100 deaths per million people), Argentina, and Peru (territories from the last two countries reporting between 10 and 50 deaths per million people).

All subregions have followed a declining trend for cases and deaths compared to the previous two weeks, except for North America where an increase in cases was noted in EW 14-15. The highest decline in cases was observed in Central America, while the highest decline in deaths was observed in South America (comparing EW 14-15 to EW 12-13). We can see that most territories in Central America reported below 50 cases per 100,000 people except for Costa Rica and Panama, and that most territories in South America reported below 10 deaths per million people (except for Peru and Argentina).

*Note: Incidence and mortality data was not available at the sub-national level for EW 14-15 for Honduras and Paraguay, explaining why national level data is shown on both maps.