

## Weekly COVID-19 Epidemiological Update - Region of the Americas

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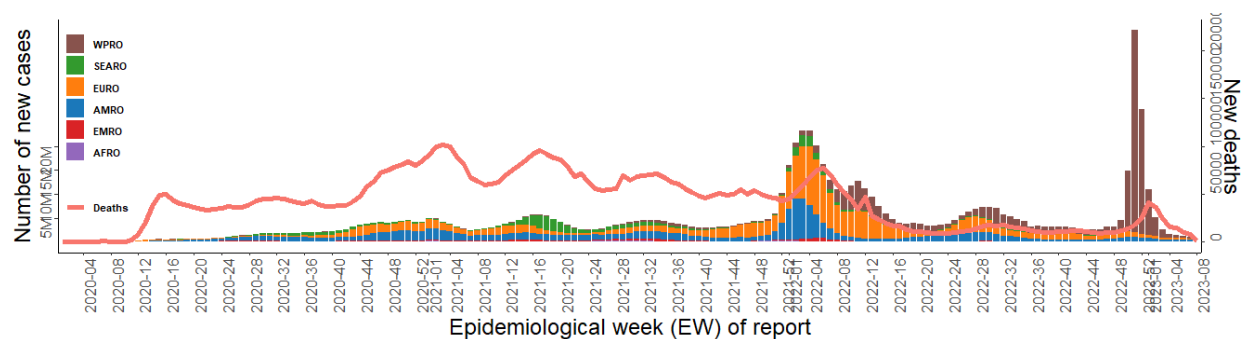
### Contents:

- Executive summary including global overview
- Regional and sub-regional trends
- Immunization
- Genomic Surveillance

## Executive Summary

- **Since the onset of the pandemic** in 2020 and up to 22 February 2023, a cumulative total of about 757 million COVID-19 cases including about 6.9 million deaths were reported from all six WHO regions. During epidemiological week (EW) 7, cases decreased in four regions while they increased in EURO (3.5% increase) and EMRO (25% increase), and deaths decreased in five WHO regions while they increased in EMRO (9.4% increase).
- **Globally**, approximately 1,097,189 new COVID-19 cases were reported in EW 7 (12 February 2023 – 18 February 2023) - a -12.4% decrease compared to EW 6 (05 February 2023 - 11 February 2023) (**Figure 1**). For the same period, 8,187 new COVID-19 deaths were reported globally – a -20.3% relative decrease compared the previous week.
- **In the region of the Americas**, 364,432 cases and 3,775 deaths were reported in EW 7 – a -8.8% decrease in cases and -16.2% decrease in deaths compared to the previous week.
- At the subregional level, COVID-19 cases and deaths decreased in all four subregions.
- The overall weekly case notification rate for the region of the Americas was 35.6 cases per 100,000 population during EW 7 (39.1 the previous week). Between EW 7 and 6, the 14-day COVID-19 death rate was 8.1 deaths per 1 million population (9.4 the previous two weeks).
- Among 19 countries/territories in the region with available data, **COVID-19 hospitalizations** increased in 6 countries and territories (range: 0.3% - 100%) during EW 7 compared to the previous week. Among 15 countries and territories with available data, **COVID-19 ICU admissions** increased in 2 countries and territories (range: 12.8% - 100%).

**Figure 1:** COVID-19 cases and deaths by epidemiological week (EW) of report and WHO region. EW 4 2020 - EW 7 2023.

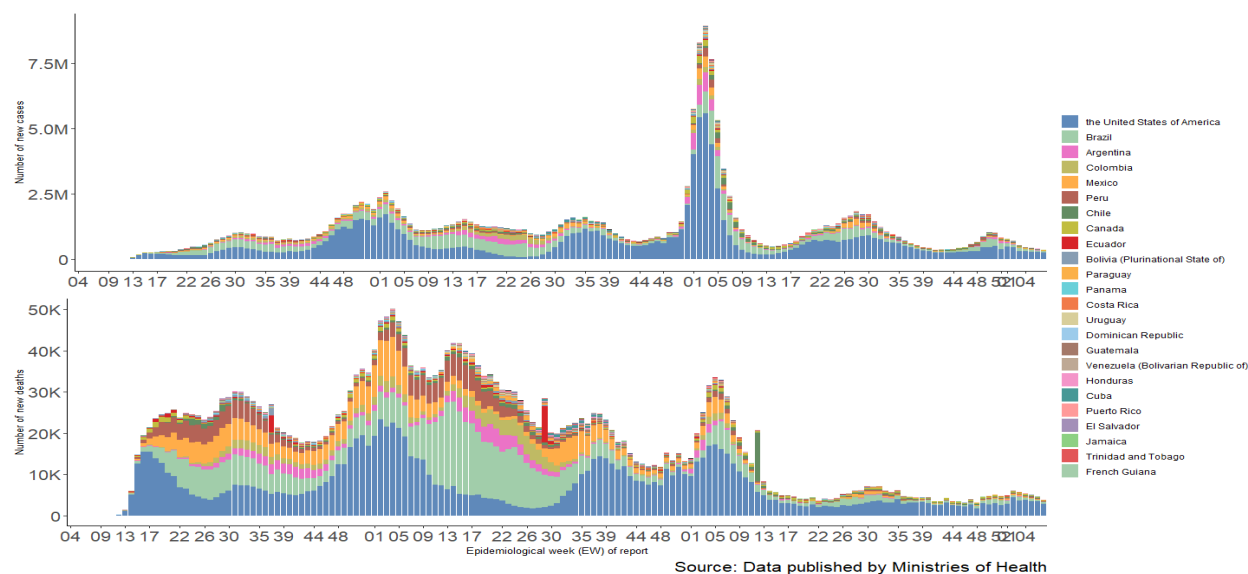


Source: Data from WHO COVID-19 Dashboard

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 - 7 2023.



During EW 7, 364,432 new **COVID-19 cases** were reported in the region of the Americas - a relative decrease of -8.8% compared to previous week (**Figure 2**). The highest number of COVID-19 cases in the last week was reported from North America (280,197 cases, -8% decrease) compared to the previous week. (**Table 1**). During EW 7, the highest proportion of weekly COVID-19 cases at the national level were reported by the United States of America (254,372 new cases, -8.6% decrease), Brazil (57,343 new cases, -10% decrease), Mexico (15,439 new cases, -11.2% decrease).

**Table 1:** Weekly change (%) in cases and deaths between EW 6 and EW 7 by subregion. Region of the Americas

Subregion	Total Cases	Total Deaths	Cases EW 06	Deaths EW 06	Cases EW 07	Deaths EW 07	% Change Cases	% Change Deaths
Caribbean and Atlantic Ocean Islands	4,393,556	36,256	5,360	52	4,375	43	-18.4%	-17.3%
Central America	4,223,502	54,244	7,519	42	6,722	32	-10.6%	-23.8%
North America	113,763,937	1,490,683	306,045	3,750	280,197	3,120	-8.4%	-16.8%
South America	67,598,044	1,346,260	80,803	663	73,138	580	-9.5%	-12.5%

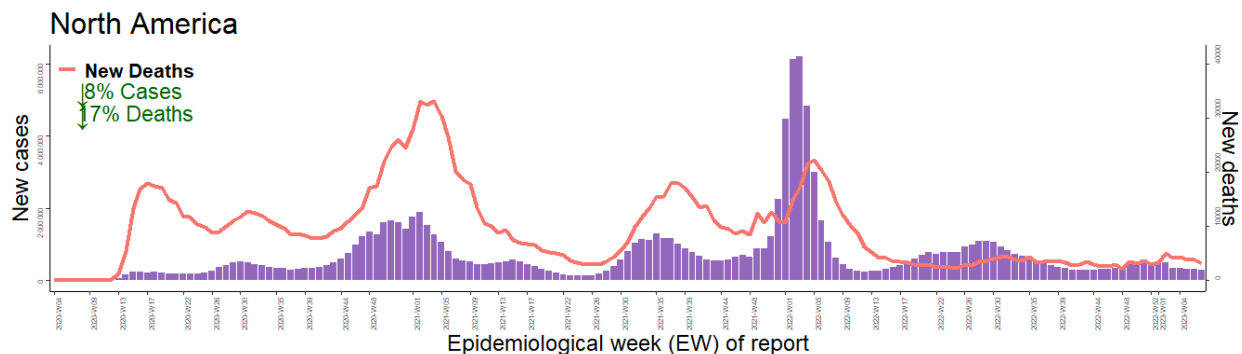
For the same period, 3,775 **COVID-19 deaths** were reported in the region of the Americas - a relative decrease of -16.2% compared to previous week (**Figure 2**). The highest number of COVID-19 deaths in the last week was reported from North America (3,120 deaths, -17% decrease) (**Table 1**). At the national level, the highest proportion of weekly COVID-19 deaths were reported by the United States of America (2,857 new deaths, -16.9% decrease), Brazil (385 new deaths, 21.5% increase), and Canada (158 new deaths, -20.6% decrease).

**A summary of the COVID-19 trends for EW 7 by subregion is presented below.**

## North America

The overall trends for **COVID-19 cases** have been decreasing in North America as of EW 7. During EW 7, the largest decline in cases were reported by Mexico (15,439 new cases, -11.2% decrease), followed by the United States of America (254,372 new cases, -8.6% decrease), and Canada (10,386 new cases, -0.4% decrease).

**Figure 3:** COVID-19 cases and deaths by epidemiological week (EW). **North America.** Region of the Americas. EW 3 2020 - EW 7 2023.



For the same period, **weekly COVID-19 deaths** decreased by -16.8% in North America during EW 7 relative to the previous week. The largest decline in deaths were reported by Canada (158 new deaths, -20.6% decrease), followed by the United States of America (2,857 new deaths, -16.9% decrease), and Mexico (105 new deaths, -5.4% decrease).

During EW 7, among the two countries in North America with available data for **COVID-19 weekly hospitalizations and ICU admissions**, the United States of America reported an increase in its weekly COVID-19 hospitalizations (n=29,132 hospitalizations, 0.3% increase) and a decrease in its weekly ICU admissions (n=3,499 ICU admissions, -3.1% decrease). In Canada, weekly hospitalizations and ICU admissions decreased during EW 7 compared to the previous week (3,760 hospitalizations, -5.2% decrease, and 199 ICU admissions, -2% decrease).

The Omicron lineages BA.5 and XBB are circulating in all three countries in the subregion. In the United States of America, the proportions of the BA.5 subvariant have been gradually decreasing over the past three months and its sub-lineages, BQ.1 and BQ.1.1, have been decreasing in the last month, while the estimated proportions of XBB sub-lineages have been rapidly increasing since mid-December – accounting for 81.7% (including 80.2% of XBB.1.5) of sequences for the week ending on 18 February 2023<sup>1</sup>. The sub-lineages of BA.5 and XBB.1.5 made up about 64% (including 2.9% of BQ.1 and 32.5% of BQ.1.1) and about 27.7% respectively, in EW 5 in Canada<sup>2</sup>. The sub-lineages of BA.5 and XBB made up about 50% and 44% of sequences in EW 4 in Mexico, respectively.

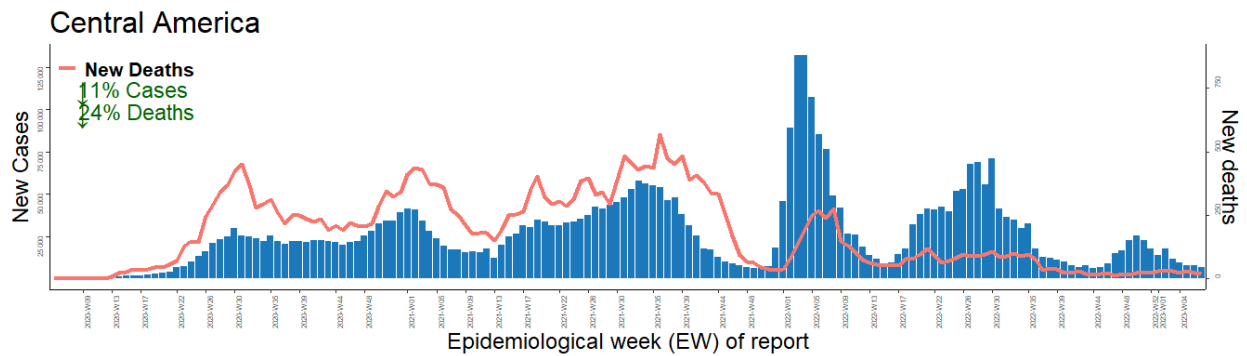
## Central America

In Central America, the overall **COVID-19 incidence** for the subregion is on a downward trend with 6,722 new cases being reported during EW 7 – a -10.6% decrease compared to the previous week (**Figure 4**).

1 The United States Centers for Disease Control and Prevention (CDC). Variant Proportions. Accessed 22 February 2023. Available at: <https://bit.ly/3Obz8cT>

2 Public Health Agency of Canada (PHAC). COVID-19 Variants in Canada. Accessed 22 February 2023. Available at: <https://bit.ly/3bbFRFr>

**Figure 4: COVID-19 cases and deaths by epidemiological week (EW). Central America. Region of the Americas. EW 6 2020 - EW 7 2023.**



During EW 7, **COVID-19 weekly cases** decreased in all countries and territories (range: -70.6% - -11.7%) except for Costa Rica that reported an increase in weekly new cases (4,471 new cases, 6.3% increase). The countries with the largest decline in **weekly cases** included Honduras (140 new cases, -70.6% decrease), Belize (24 new cases, -35.1% decrease), and Nicaragua (15 new cases, -25% decrease). Please note that Panama and El Salvador have not report cases for EW 7.

During EW 7, **weekly deaths** decreased by approximately -23.8% relative to the previous week (**Figure 4**) with one out of the seven countries and territories reporting an increase – Costa Rica (19 new deaths, 35.7% increase). The remaining countries did not report any deaths (n=3) or reported a decline in deaths (n=2, range: -100 - -40.9% decrease).

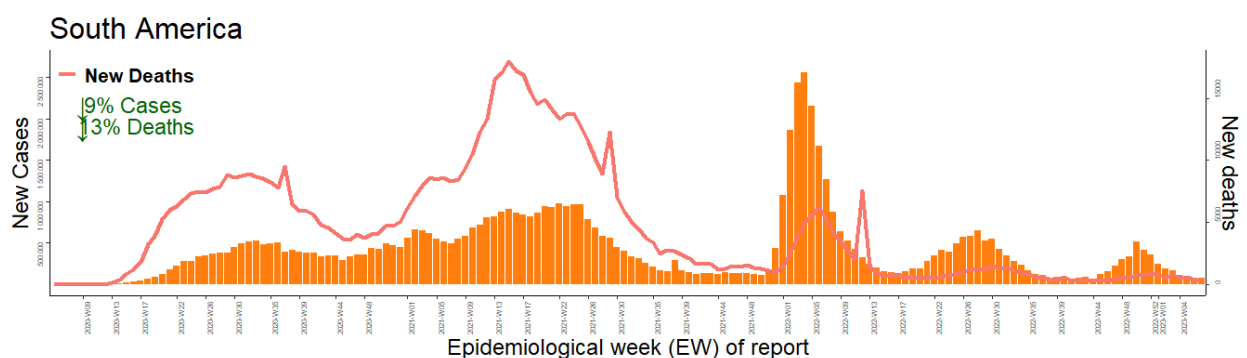
Among four countries and territories with available data for **weekly COVID-19 hospitalizations** in the Central American subregion, Honduras and Costa Rica reported an increase in their weekly COVID-19 hospitalizations (range: 10.2 - 60% increase). Among three countries and territories with available data for **weekly COVID-19 ICU admissions**, Costa Rica reported a decrease in weekly COVID-19 ICU admissions (11 ICU admissions, -8.3% decrease).

To date, the Omicron lineages BA.5 and XBB have been reported from six and five of the seven countries and territories in the subregion, respectively – Costa Rica, Panama, Guatemala, El Salvador, and Belize. Nicaragua reported BA.5 only as of EW 7.

## South America

In South America, the overall **COVID-19 incidence** for the subregion has decreased by -9.5%, with a total of 73,138 new COVID-19 cases being reported during EW 7 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 7 2023.**



Out of the ten countries and territories in the sub-region, Paraguay and Venezuela (Bolivarian Republic of) experienced an increase in **COVID-19 weekly cases** during EW 7 (596 new cases, 777% increase, and 215 new cases, 103% increase respectively). The remaining countries and territories in the sub-region reported a decrease in weekly cases compared to the previous week, with the largest decline in cases being reported by Uruguay (280 new cases, -44.1% decrease), followed by Argentina (1,172 new cases, -35.1% decrease), and Bolivia (Plurinational State of) (974 new cases, -33.3% decrease).

During EW 7, a total of 580 **COVID-19 deaths** were reported in South America – a -12.5% decrease compared to the previous week. Bolivia (Plurinational State of) and Brazil reported an increase in deaths compared to the previous week (5 new deaths, 150% increase, and 385 new deaths, 21.5% increase respectively). The remaining countries and territories in the sub-region reported a decrease in weekly deaths compared to the previous week, with the largest decline in deaths being reported by Uruguay (0 new deaths, -100% decrease), followed by Venezuela (Bolivarian Republic of) (1 new death, -83.3% decrease), and Peru (68 new deaths, -58.8% decrease).

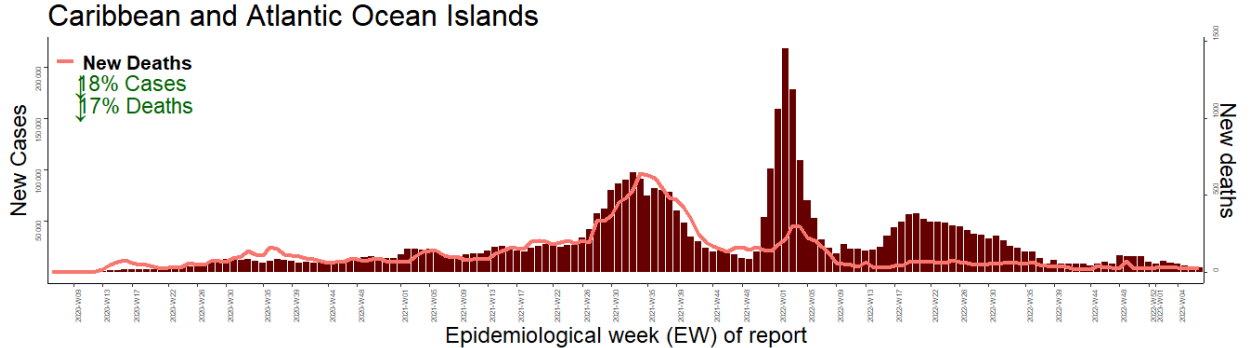
Among the four countries and territories in the subregion with data available for **COVID-19 weekly hospitalizations**, Chile did not report any variation in their weekly COVID-19 hospitalizations (n=812), while the remaining three reported a decline (range: -15.3% - -5.5% decrease). For the same period, among the five countries and territories with data available for **COVID-19 ICU admissions**, Peru reported an increase (53 ICU admissions, 12.8% increase), Chile did not report any variation (n=108 ICU admissions), and the remaining countries and territories reported a decrease in their weekly COVID-19 ICU admissions (range: -33.3 - -7.7% decrease).

To date, the Omicron lineages BA.5 and XBB have been reported from ten and eight out of the 10 countries in the subregion, respectively – Argentina, Bolivia (Plurinational State of) (BA.5 only), Brazil, Chile, Colombia, Ecuador, Paraguay (BA.5 only), Peru, Uruguay, Venezuela (Bolivarian Republic of).

## Caribbean and Atlantic Ocean Islands

In the Caribbean and Atlantic Ocean Islands sub -region, **COVID-19 weekly cases** decreased by -18.4% (4,375 new cases) compared to the previous week (**Figure 6**). At the national level, cases increased in three out of the 34 countries and territories in the subregion (range: 7.2% - 200%). Eighteen countries and territories in the subregion reported no new cases during EW 7. Notable increases in weekly cases in the subregion during EW 7 were observed in Saint Kitts and Nevis (3 new cases, 200% increase), and Trinidad and Tobago (312 new cases, 7.2% increase).

**Figure 6:** COVID-19 cases and deaths by epidemiological week (EW). **Caribbean and Atlantic Ocean Islands.** Region of the Americas. EW 6 2020 - EW 7 2023.



For the same period, **COVID-19 weekly deaths** decreased by -17.3% (43 new deaths) in the Caribbean and Atlantic Ocean Islands subregion. Three countries and territories observed a relative increase in their weekly deaths in EW 7 compared to the previous week (range: 100% - 200% increase). Weekly deaths either remained the same, no cases were reported, or declined in the remaining countries and territories of the subregion (range: -100— -44.7%).

During EW 7, among the ten countries and territories with available data for **weekly COVID-19 hospitalizations**, three countries and territories reported an increase in their weekly COVID-19 hospitalizations (range: 17.7% - 100% increase). Among the eleven countries and territories with data available for **COVID-19 ICU admissions**, only Guadeloupe reported an increase in their weekly COVID-19 ICU admissions (2 ICU admissions, 100% increase).

To date, the Omicron lineages BA.5 and XBB have been reported from 22 and 15 countries and territories in the subregion respectively. 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

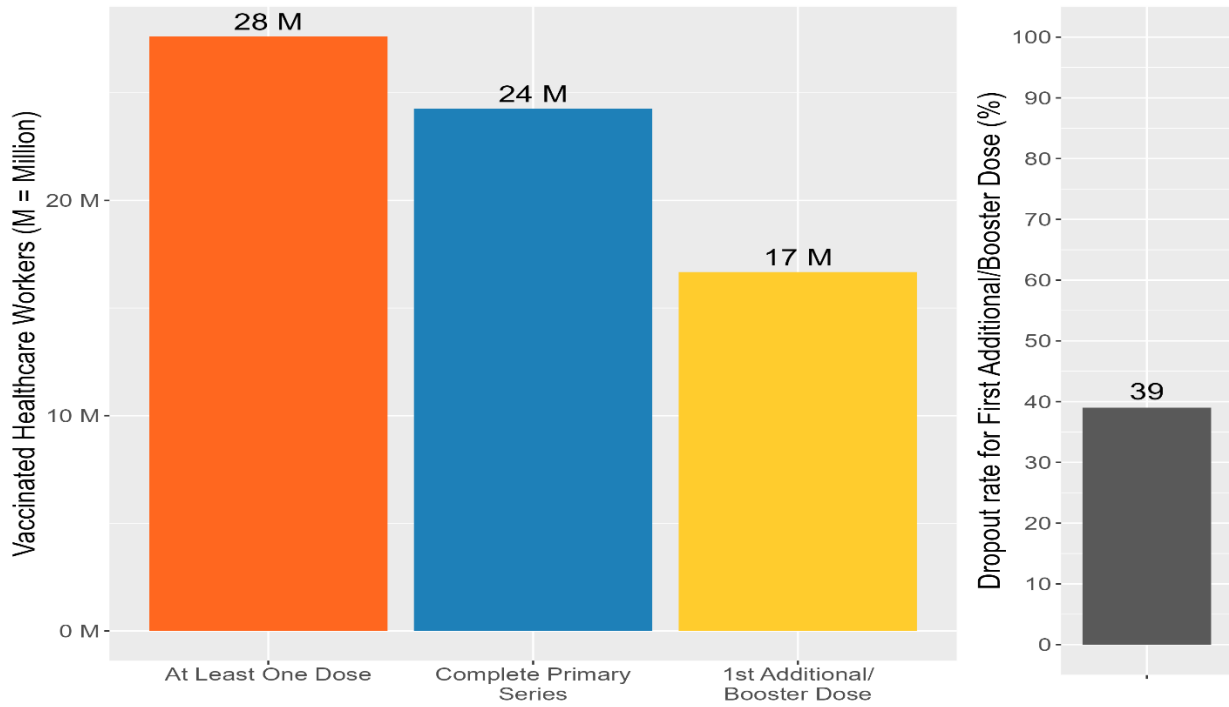
In last week's PAHO weekly COVID-19 Situation Report, we calculated the dropout rate as the proportion of health workers who – having received the first COVID-19 vaccine dose – did not complete the primary series by receiving the second dose. The region-level dropout rate was calculated at 11%. This week, we report the dropout rate between completed primary series and first additional/booster dose. The dropout rate rises to 39% (**Figure 7**). This gap is confirmed by **Figure 8**<sup>1</sup>, which compares both dropout rates by country. We note that dropout rates between completed primary series and first additional/booster dose are significantly higher than between first and second dose of the primary series. Two possible interpretations should be considered:

1. High dropout rates highlight vaccination hesitancy among health workers, and
2. Lack of data reporting may manifest itself as high dropout rates, since the number of applied doses may continue to increase but are not being reported. Of the 22 countries reported here, only 15 updated health workers vaccination information in the last 6 months, and 12 in the last 3 months.

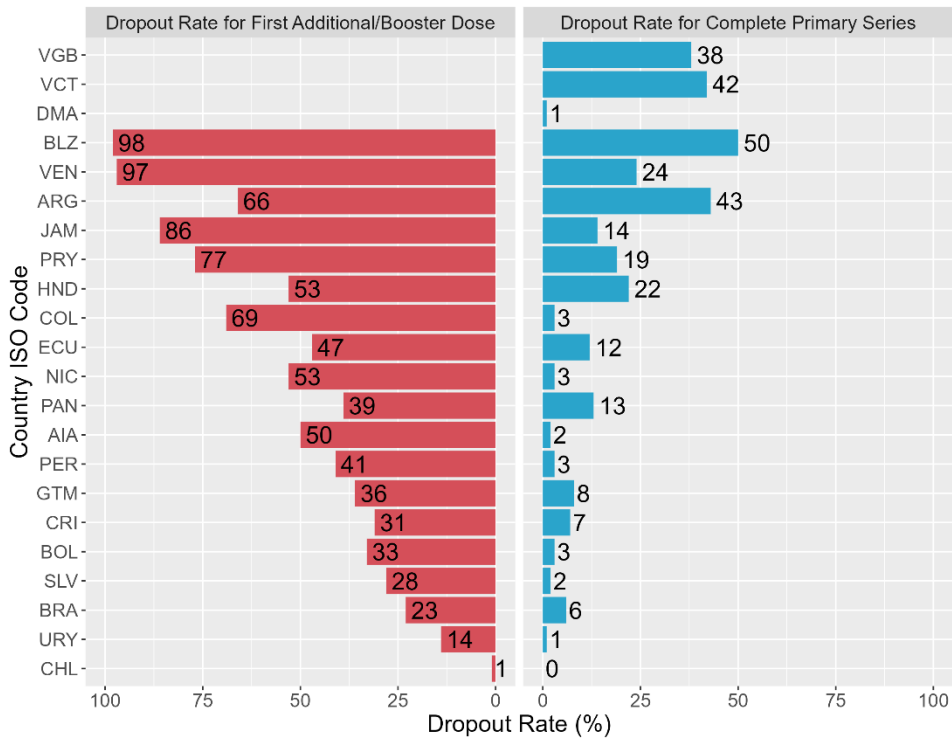
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<sup>1</sup> It is important to note that the first three countries or territories in the left graph of **Figure 8** have been left blank, due to a lack of information on first additional/booster doses.

**Figure 7:** Number of health worker vaccinated with each COVID-19 doses and dropout rate between primary series and first additional/booster dose. Region of the Americas.



**Figure 8:** Dropout rate between primary series and first additional/booster dose among health workers, by country. Region of the Americas.



## Genomic surveillance

Through PAHO's Genomic Surveillance Regional Network and the work from the Member States, 540,848 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 February 2023.

The Omicron variant of concern (VOC) was introduced in the Americas at the end of 2021, and it rapidly replaced Delta VOC and other lineages throughout the Region. Omicron has been predominant in all PAHO countries since the beginning of 2022. In the past two months, very few sequences from "previously circulating" VOCs have been detected in the Region (two Delta sequences in North America).

Omicron comprises the BA.1 to BA.5 sublineages (or subvariants), which are in turn subdivided into diverse sublineages based on additional mutations that slightly change their genomic profile. These sublineages of BA.1 to BA.5 include those denominated as BC.x to EF.x. Several sublineages arising from recombinations involving Omicron viruses have also been described. The cumulative proportion of Omicron sequences collected in the Americas from November 2021 to date are: 40.4% of BA.1 (and BA.1 sublineages), 22.4% of BA.2 (and sublineages), <0.1% of BA.3 (and sublineages), 4.1% of BA.4 (and BA.4 sublineages), 31.2% BA.5 (and BA.5 sublineages), and 2.0% recombinant 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 9**). Since then, BA.5 proportion has continued to increase, BA.4 proportion has significantly decreased, and BA.2 proportion has increased again, owing to the circulation of several BA.2.75 sublineages. The proportion of recombinant lineages has also been increasing since week 41, driven by increased circulation of XBB (and sublineages), a recombinant between two BA.2 sublineages.

Most viruses currently circulating in the Americas correspond to BA.5 and XBB sublineages, and to a lesser extent BA.2.75 sublineages (in particular CH.1.1 and BN.1.2). In the past eight weeks, BA.5 and its sublineages, in particular BQ.1, represented 63.9%, 49.2%, 34.2%, and 63.5% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively. During the same period, recombinant lineages represented 31.0%, 37.7%, 64.3% and 32.1% of the characterized samples in North America, the Caribbean, Central America, and South America, respectively. In particular, the XBB recombinant has been detected in 31 countries and territories (across all subregions). Countries reporting the highest prevalence of XBB sequences in the past eight weeks are Guatemala (88.1%), Peru (78.8%), and Saint Lucia (70.6%). Among XBB sublineages, XBB.1.5 is the most prevalent at the regional level. XBB.1.5 was first detected in the USA at the end of October 2022 and model-based projections estimate it accounts for 80.2% (95% CI: 74.2-85.2%) of the US sequences in EW7 2023<sup>2</sup>. In addition to the USA, XBB.1.5 has also been detected in 26 countries and territories of the Americas.

An update rapid risk assessment for XBB.1.5 was published by WHO on 25 January<sup>3</sup>. There is moderate-strength evidence for increased risk of transmission and immune escape but no early signals of increases in severity have been observed. Overall, available information does not suggest that XBB.1.5 has additional public health risks relative to the other currently circulating Omicron descendent lineages. Therefore, PAHO/WHO recommends the same precautions for XBB.1.5 as for other Omicron variants, including primary vaccination and boosters.

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. 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

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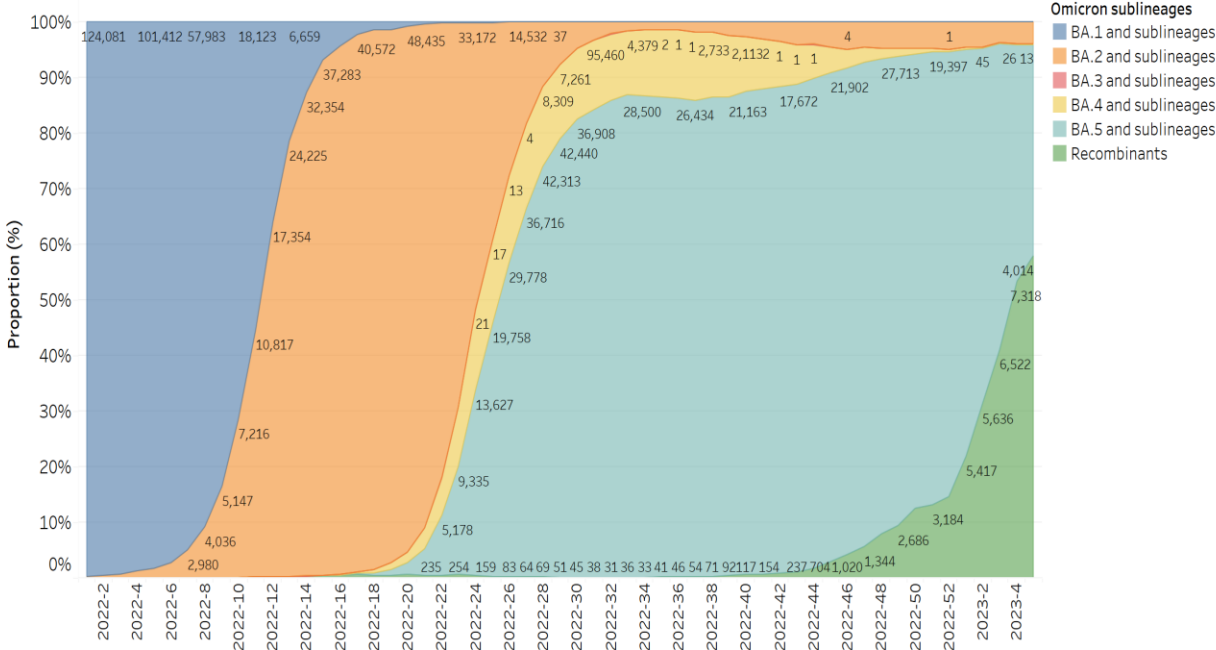
<sup>2</sup> US CDC. COVID Data Tracker - Variant Proportions. Available at: <https://covid.cdc.gov/covid-data-tracker/#variant-proportions>

<sup>3</sup> WHO. XBB.1.5 Updated Rapid Risk Assessment, 25 January 2023. Available at: <https://www.who.int/docs/default-source/coronaviruse/25012023xbb.1.pdf>



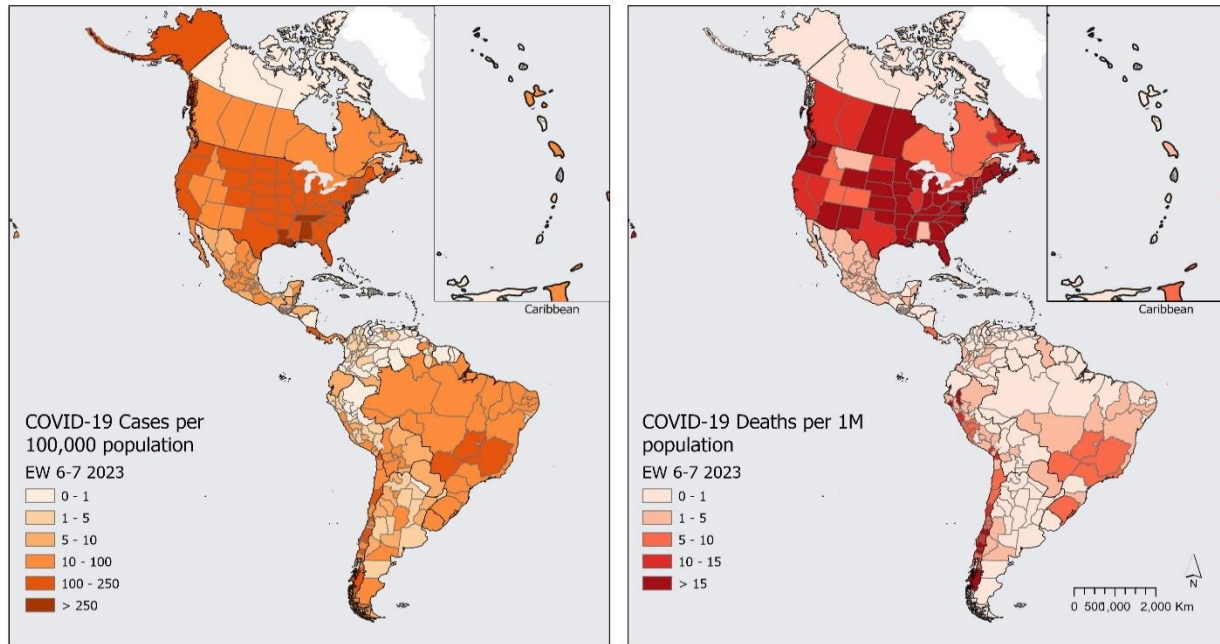
emerging lineages or new variants. In this context, **PAHO strongly encourages all countries in the Region to continue collecting representative samples for sequencing and to maintain appropriate COVID-19 genomic surveillance.**

**Figure 9:** Proportions of VOC Omicron sublineages identified by the countries in the Region of the Americas (January 2022 - February 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 6 and 7 in 2023



These maps (**Annex 1**) represent the COVID-19 case incidence and mortality rates in the Americas in during EW 6 and 7 in 2023.

The highest case incidence was observed in the USA, followed by some parts of Brazil and Chile, while the highest mortality was seen in the US, Canada, Chile, and Peru.

In North America, the highest incidence rates with over 250 cases per 100,000 pop were observed in some southeastern parts (Alabama, Tennessee, Louisiana) while most states in the US observed over 100 cases per 100,000 populations. Most territories of Canada and Mexico observed moderate incidence rates (5-10 cases per 100,000 pop). The highest mortality rates in the subregion were observed in most territories of the US and Canada.

In Central America, the largest number of reported cases was observed in Costa Rica, while in South America, some parts of Brazil (Mato Grosso do Sul, Goiás, Minas Gerais) and Chile reported relatively high incidence rates with over 100 cases per 100,000 population. The highest mortality rates in South America were observed in some parts of Peru (Amazonas, Lambayeque) and Chile (Maule, Araucania, Los Rios) with over 15 deaths per 1M populations.

In the Caribbean islands, overall incidence rates and mortality rates remained stable. In the past two weeks, the United States Virgin Islands and Puerto Rico reported the highest incidence rates in the subregion, while the highest mortality rates were reported from some parts of Puerto Rico and Trinidad and Tobago.