

3 December 2020

Situation Summary

Between epidemiological week (EW) 1 and EW 47¹ of 2020, 2,163,354 dengue cases were reported in the Region of the Americas (incidence rate of 221.6 cases per 100,000 population), including 872 deaths. Of these cases, 963,787 (45%) were confirmed by laboratory criteria and 5,197 (0.2%) were classified as severe dengue. The case fatality rate was 0.04%, the lowest recorded in the last 10 years, despite being an epidemiologically complex year for dengue due to the simultaneous pandemic transmission of Coronavirus disease (COVID-19).

Although the cumulative incidence rate as of EW 47 of 2020 for the Region of the Americas is lower than that reported during the epidemic year 2019, it is higher than the incidence rate reported for the 2016-2018 period and it is the highest reported since 2015 in two sub-regions of the Americas: non-Latin Caribbean and Andean Subregion². (**Figure 1**)

This situation occurs in parallel with an intense transmission of SARS-CoV-2. As of EW 47 of 2020 in the Region of the Americas, the total accumulated cases of COVID-19 were 24,563,640 (2,424 cases per 100,000 population) and 697,740 deaths (case fatality rate of 2.8%).

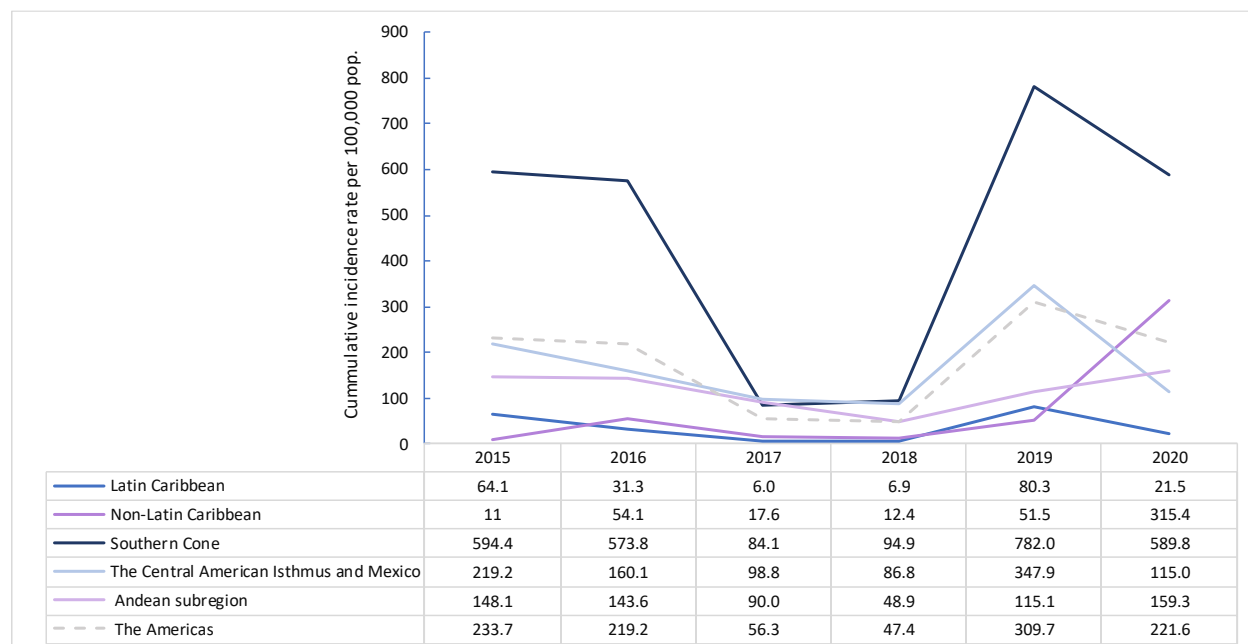
In the current context of the COVID-19 pandemic, the persistence of higher than expected dengue cases in endemic areas and the beginning of the summer season in the southern hemisphere will represent a significant challenge for the concerned populations and the systems that will need to respond to concomitant public health risk events.

Furthermore, recent hurricanes and storms have placed an additional burden on the already overburdened health systems in affected Central American countries and has caused the potential slowdown or postponement of vector control activities.

¹ Data available in the Health Information Platform for the Americas (PLISA, PAHO/WHO), accessed on 1 December 2020. Available at: <https://bit.ly/314Snw4>

² Note: the subregions and the corresponding countries and territories follow the divisions outlined in the Health Information Platform for the Americas (PLISA), available at: <https://bit.ly/314Snw4>

Figure 1. Incidence rate of dengue cases by 100,000 population as of Epidemiological Week (EW) 47 by year of report and subregion. Region of the Americas, 2015-2020.



Source: Data entered into the Health Information Platform for the Americas (PLISA, PAHO/WHO) by the Ministries and Institutes of Health of the countries and territories of the Region. Available at: <https://bit.ly/314Snw4>. Accessed 1 December 2020.

As of EW 47 of 2020, 6 of the 10 countries and territories with the highest cumulative incidence rate of dengue cases correspond to the Non-Latin Caribbean: Saint Barthelemy (15,978 cases per 100,000 population), Saint Martin (7,875 cases per 100,000 population), Martinique (7,706 cases per 100,000 population), Guadeloupe (3,494 cases per 100,000 population), French Guiana (2,843 cases per 100,000 population), and Saint Vincent and the Grenadines (1,050 cases per 100,000 population).

In the Southern Cone, as of EW 47 of 2020, countries with the highest cumulative incidence rates were Paraguay (3,212 cases per 100,000 population), a country that was affected with the largest dengue epidemic in its history, and Brazil (661 cases per 100,000 population), where the number of cases had a decreasing trend since EW 11 of 2020; in the Andean subregion, Bolivia (750 cases per 100,000 population), where cases decreased since EW 9 and, in the Central American isthmus, Nicaragua (709 cases per 100,000 population), with a slight upward trend since EW 25 of 2020.

Situation by Subregion

Non-Latin Caribbean³

Currently, the Non-Latin Caribbean subregion is experiencing an active dengue outbreak, with co-circulation of SARS-CoV-2. Dengue cases reported between EW 1 and EW 47 of 2020 have remained above what was reported for the same period in 2019.⁴ In 2020, as of EW 47, 62,620 dengue cases (incidence of 315.4 cases per 100,000 population), including 20 deaths, were reported, with a case fatality rate of 0.03%. In contrast, in 2019, 10,222 dengue cases (51.5 cases per 100,000 population), including 15 deaths, were reported for the same period.

The countries and territories that present dengue cases above the historical trend since 2015 and that have active outbreaks reported in the three-week period of EW 43 to EW 45 of 2020 are: Martinique (with an average of 1,058 cases per week), Guadeloupe (with an average of 990 cases per week), French Guiana (with an average of 87 cases per week), and Saint Barthelemy (with an average of 32 cases per week).

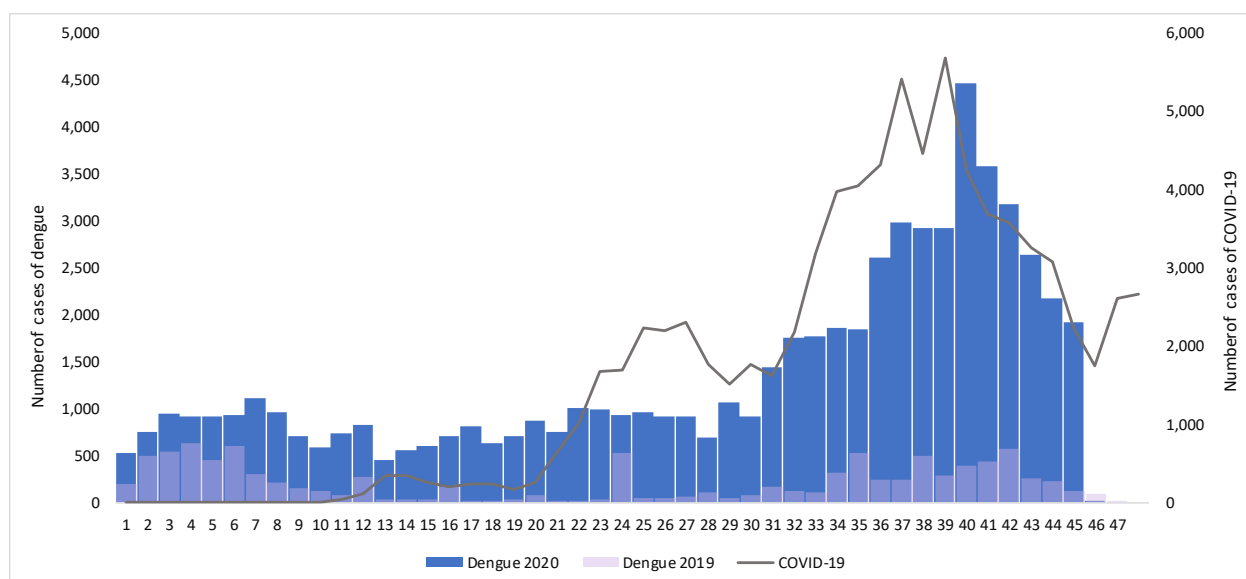
With regard to the COVID-19 pandemic, a first wave among these countries and territories started in EW 20 of 2020 and a second one started in EW 31, coinciding with an increase in notifications of dengue cases (**Figure 2**). Of the 6 countries and territories with the highest dengue incidence rates, French Guiana, Guadeloupe, Martinique, and Saint Martin also report community transmission of COVID-19, while Saint Barthelemy and Saint Vincent and the Grenadines report sporadic cases of COVID-19.

Due to this situation, there has been substantial technical cooperation over the last three months in this subregion, prioritizing patient management as a method to prevent severe cases and deaths, and the case fatality rate of 0.03% has been maintained.

³ As defined by the Health Information Platform for the Americas to include: Anguilla, Antigua and Barbuda, Aruba, the Bahamas, Barbados, Bermuda, Bonaire, Sint Eustatius and Saba, the British Virgin Islands, the Cayman Islands, Curacao, Dominica, Grenada, Guadeloupe, French Guiana, Guyana, Haiti, Jamaica, Martinique, Montserrat, Saint Barthelemy, Saint Kitts and Nevis, Saint Lucia, Saint Martin, Sint Maarten, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos, and the U.S. Virgin Islands.

⁴ Data available in the Health Information Platform for the Americas (PLISA, PAHO/WHO) at: <https://bit.ly/3IGwSwc>. Accessed 1 December 2020.

Figure 2. Distribution of dengue and COVID-19 cases by epidemiological week (EW). Non-Latin Caribbean, EW 1 to 47 of 2019 and 2020.



Source: Data available through the Health Information Platform for the Americas (PLISA, PAHO/WHO) and the WHO COVID-19 Dashboard. Available at: <https://bit.ly/314Snw4> and <https://covid19.who.int/>. Accessed 1 December 2020.

Andean Subregion⁵

Between EW 1 and EW 47 of 2020, 226,970 cases of dengue (incidence of 159.3 cases per 100,000 population), including 153 deaths were reported in the Andean Subregion.⁶ The case fatality rate was 0.07%.

This subregion reported the highest number of reported dengue cases between EW 1 and EW 17 of 2020. The number of reported cases peaked in EW 7 of 2020, and began to decrease steadily from EW 10, coinciding with the increase of COVID-19 cases. From EW 20 to EW 47, the number of cases registered per week remained below those reported in 2019. In this subregion, the number of COVID-19 cases reached a peak in EW 34 of 2020. (**Figure 3**)

Bolivia reported an unusual increase in dengue cases since EW 2 of 2020 that peaked in EW 7, with 8,976 cases reported weekly. After EW 8, cases began to decline, and as of EW 25 there continued to be less than 100 cases reported per week.

In the three-week period of EW 45 to EW 47, Colombia maintained an average of 623 reported cases per week, the lowest average since EW 18 of 2018 and after two years with high-intensity circulation, having reached a peak in EW 3 of 2020 with 4,947 weekly cases reported.

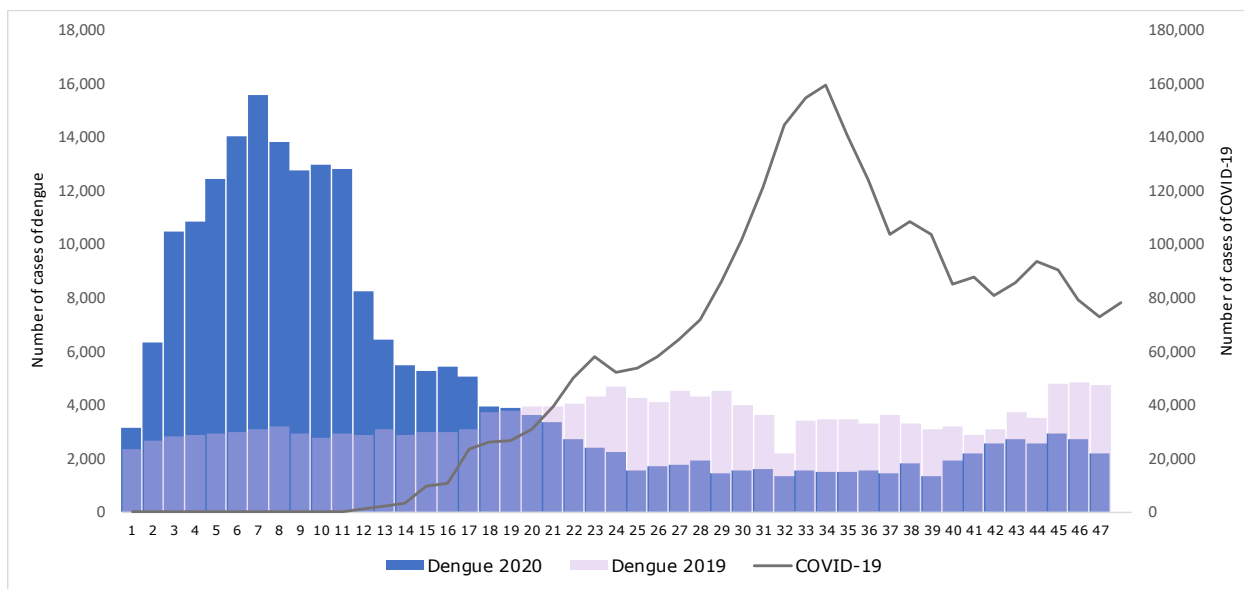
⁵ Bolivia, Colombia, Ecuador, Peru, and Venezuela

⁶ Data available in the Health Information Platform for the Americas (PLISA, PAHO/WHO). Available at: <https://bit.ly/314Snw4>. Accessed 1 December 2020

In Peru, as of EW 47 of 2020, there were 46,711 cases of dengue, including 71 deaths, reported through the surveillance system. Of the total reported cases, 25,484 (54.56%) were laboratory confirmed and 210 (0.45%) were classified as severe dengue. The epidemic curve displays three peaks of cases during 2020: the first in EW 10 (2,054 cases), one EW 16 (1,500 cases), and a third in EW 45 (2,065 cases).

Over the last nineteen weeks, EW 29 to EW 47 of 2020, an ascending curve of cases was observed in Peru, with an average of 980 weekly cases in an atypical period of the year; from 2015 to 2018 the weekly average reported for the same period never exceeded 500 cases.

Figure 3. Distribution of dengue and COVID-19 cases by epidemiological week (EW). Andean Subregion, EW 1 to 47 of 2019 and 2020.



Source: Data available through the Health Information Platform for the Americas (PLISA, PAHO/WHO) and the WHO COVID-19 Dashboard. Available at: <https://bit.ly/3IGwSwc> and <https://covid19.who.int/>. Accessed 1 December 2020.

Southern Cone⁷

Between EW 1 and EW 47 of 2020, 1,661,700 cases of dengue (incidence of 589.8 cases per 100,000 population), including 591 deaths, were reported in the Southern Cone.⁸ The case fatality rate was 0.04%.

This subregion reported a sustained increase in the number of dengue cases between EW 1 and EW 11 of 2020, followed by the reported weekly average falling to almost half since EW 12; this coincides with the start of the COVID-19 pandemic and measures restricting mobility applied by countries to contain the pandemic. Since EW 17 of 2020 there has been a sustained decrease in the number of notifications of dengue cases.

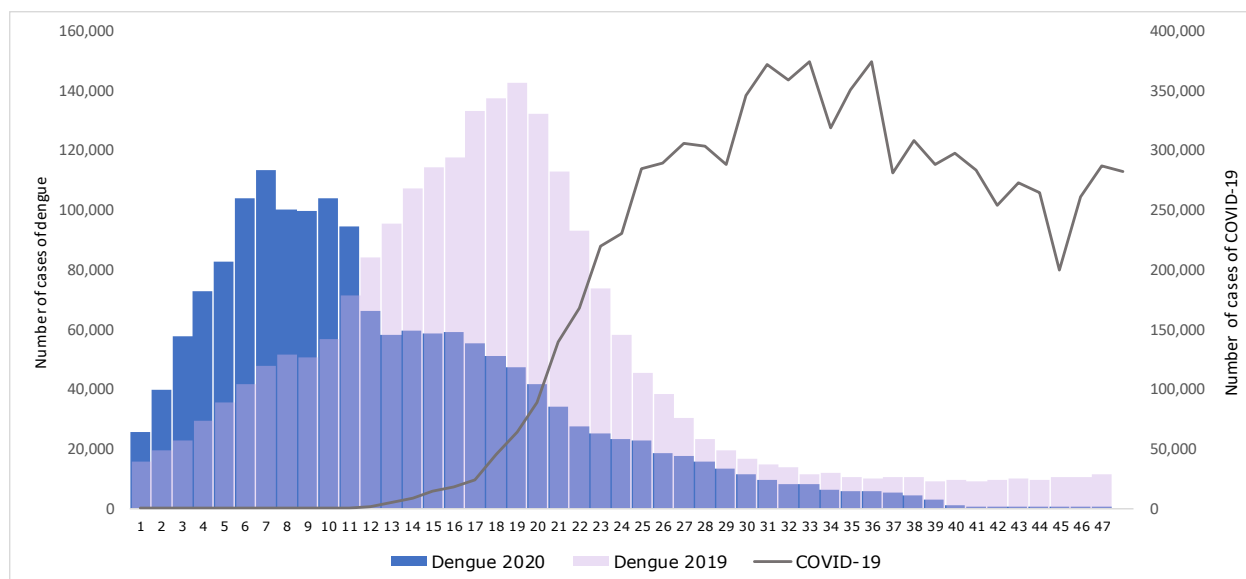
In this subregion, the number of accumulated dengue cases and the cumulative incidence rate as of EW 47, did not reach the epidemic figures reported in 2019, even with the outbreak reported in the first quarter of 2020. In 2019, there were 2,203,396 cases reported during the same period, with an incidence rate of 782 cases per 100,000 population. **(Figure 4)**

Notably, Paraguay reported a historical peak of suspected dengue cases with 33,468 cases in EW 6 of 2020; in addition, in the same week, the highest peak of confirmed dengue cases was reported with 9,350 cases. Since EW 12, the number of dengue cases per week has dropped to less than 1,000 cases weekly. In the three-week period of EW 45 to EW 47, the weekly average of notifications of suspected cases was 183. As of EW 47 of 2020, a total of 61,573 cases (confirmed and probable) were reported with an incidence rate of 849 cases per 100,000 population.

⁷ Argentina, Brazil, Chile, Paraguay, and Uruguay

⁸ Data available in the Health Information Platform for the Americas (PLISA, PAHO/WHO). Available at: <https://bit.ly/314Snw4>. Accessed 1 December 2020

Figure 4. Distribution of dengue and COVID-19 cases by epidemiological week (EW). Southern Cone, EW 1 to 47 of 2019 and 2020.



Source: Data available through the Health Information Platform for the Americas (PLISA, PAHO/WHO) and the WHO COVID-19 Dashboard. Available at: <https://bit.ly/314Snw4> and <https://covid19.who.int/>. Accessed 1 December 2020.

Latin Caribbean⁹

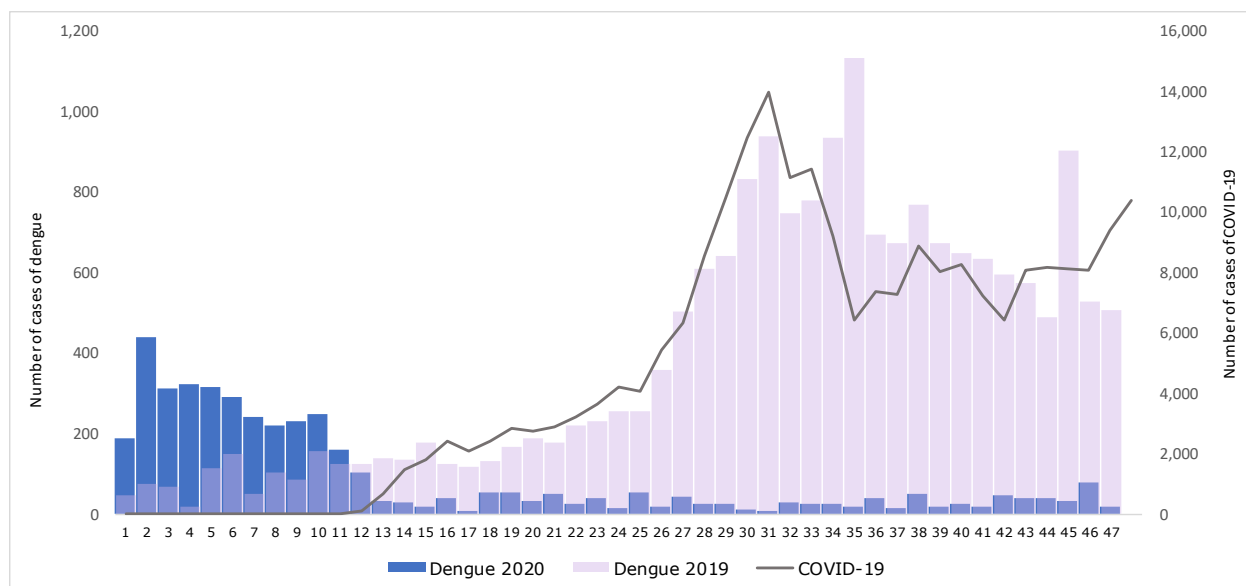
Between EW 1 and EW 47 of 2020, 5,592 dengue cases (incidence of 21.5 cases per 100,000 population), including 35 deaths, were reported in the Latin Caribbean subregion.¹⁰ The case fatality rate (0.63%) is the highest in the region of the Americas, with the Dominican Republic being the country that reports all of the deaths for this subregion. With respect to COVID-19, since EW 12 of 2020 there has been an increase in the number of reported cases, with a peak in EW 31 of 2020. (Figure 5)

In this subregion, as of EW 47 of 2019, 20,896 dengue cases (incidence of 80.3 cases per 100,000 population), including 47 deaths, were reported, with a case fatality rate of 0.23%.

⁹ Cuba, the Dominican Republic, and Puerto Rico

¹⁰ Data available in the Health Information Platform for the Americas (PLISA, PAHO/WHO). Available at: <https://bit.ly/314Snw4>. Accessed 1 December 2020

Figure 5. Distribution of dengue and COVID-19 cases by epidemiological week (EW). Latin Caribbean, EW 1 to 47 of 2019 and 2020.



Note: In Figure 5 the cases from Cuba are omitted, due to the notification of accumulated cases in EW26 / 2019, EW35 / 2019 and EW26 / 2020.

Source: Data available through the Health Information Platform for the Americas (PLISA, PAHO/WHO) and the WHO COVID-19 Dashboard. Available at: <https://bit.ly/314Snw4> and <https://covid19.who.int/>. Accessed 1 December 2020.

Central American Isthmus and Mexico¹¹

Between EW 45 and EW 47 of 2020, two successive hurricanes¹² affected the Central American Isthmus, mainly Guatemala, Honduras, and Nicaragua, causing floods, landslides and damage to infrastructure, homes, and services. The consequent high demand in health and social services increases the risk of disease transmission, as well as makes epidemiological surveillance and vector control difficult.¹³

Between EW 1 and EW 47 of 2020, 206,211 dengue cases (incidence rate of 115 cases per 100,000 population), including 73 deaths, were reported in the Central American Isthmus and Mexico.¹⁴ The case fatality rate was 0.04%.

¹¹ Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, and Panama

¹² Between 1 and 2 November 2020, Hurricane Eta, cataloged as Category 4, with winds of 150 mph (240 km/h). On 16 November 2020, Category 5 hurricane Iota appeared, with rainfall and maximum sustained winds close to 160 mph (260 km/h).

¹³ United Nations Office for the Coordination of Humanitarian Affairs. Weekly Situation Summary (23-29 November 2020). Available at <https://bit.ly/39Bmym7>.

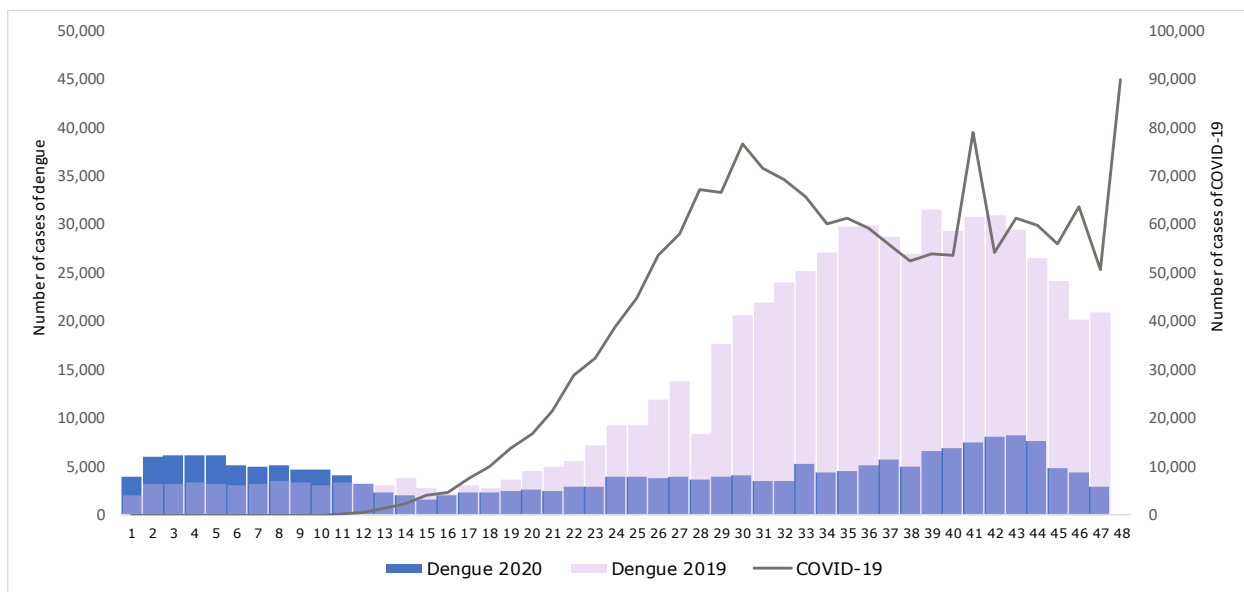
¹⁴ Data available in the Health Information Platform for the Americas (PLISA, PAHO/WHO). Available at: <https://bit.ly/314Snw4>. Accessed 1 December 2020

The number of reported dengue cases has remained stable as of EW 47 of 2020 and below that reported for the same period in 2019, when 623,980 cases (incidence of 347.9 cases per 100,000 population), including 415 deaths, were reported. Dengue cases are being reported simultaneously to the appearance and increase of COVID-19 cases, which had peaks in EW 30 and EW 41, followed by another peak in COVID-19 cases in EW 48 of 2020. (Figure 6)

As of EW 45 of 2020, Costa Rica had reported 9,556 cases of dengue and zero deaths. An increase in dengue cases had been reported between EW 19 and EW 32, reaching a peak of 451 weekly cases in EW 27, and then decreasing in the following weeks.

In the three-week period of EW 45 to EW 47 two countries had reported sustained circulation: Mexico and Nicaragua. Mexico reported an average of 3,858 cases per week, similar to the trend reported between 2016 and 2018, but lower than the 2019 epidemic year, when an average of 10,040 cases were reported per week. Nicaragua reported an average of 1,130 cases per week, below its epidemic threshold.

Figure 6. Distribution of dengue and COVID-19 cases by epidemiological week (EW). Central American Isthmus and Mexico, EW 1 to 48 of 2019 and 2020.



Source: Data available through the Health Information Platform for the Americas (PLISA, PAHO/WHO) and the WHO COVID-19 Dashboard. Available at: <https://bit.ly/314Snw4> and <https://covid19.who.int/>. Accessed 1 December 2020.

Advice to Member States

Given the coexistence of COVID-19 with dengue, and other arboviruses in several countries and territories of the Region of the Americas, the Pan American Health Organization/World Health Organization (PAHO/WHO) urges Member States to continue strengthening surveillance, diagnosis, triage, and adequate treatment of dengue in the context of COVID-19, while establishing strategies to facilitate access to health services for patients with dengue and other arboviruses. PAHO/WHO recommends the adequate triage of patients both for the timely detection of dengue warning signs and to reduce the risk of SARS-CoV-2 infections acquired in health care services.

PAHO/WHO reminds Member States of the guidelines published in the 10 June 2020 PAHO/WHO Epidemiological Update on dengue and other arboviruses, available at: <https://bit.ly/3mM1H36>; as well as those related to COVID-19 published in the 9 November 2020 PAHO/WHO Epidemiological Update, available at: <https://bit.ly/3g4vK3S>.

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3. PAHO/WHO. Epidemiological Update: Dengue and other Arboviruses. 10 June 2020, Washington, D.C.: PAHO/WHO; 2020. Available at: <https://bit.ly/3mM1H36>
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