

In several countries and territories of the Caribbean and Central America, the season with the highest circulation of dengue has begun; this is occurring in a context of intense transmission of SARS-CoV-2 in the Americas. The Pan American Health Organization / World Health Organization (PAHO / WHO) calls on Member States to strengthen surveillance, diagnosis, and treatment, and at the same time to carry out actions for the eventual expansion of primary and specialized care services, mainly in places where a seasonal increase in the number of cases of dengue and other arbovirolosis is expected, along with the increase in cases of COVID-19.

### Introduction

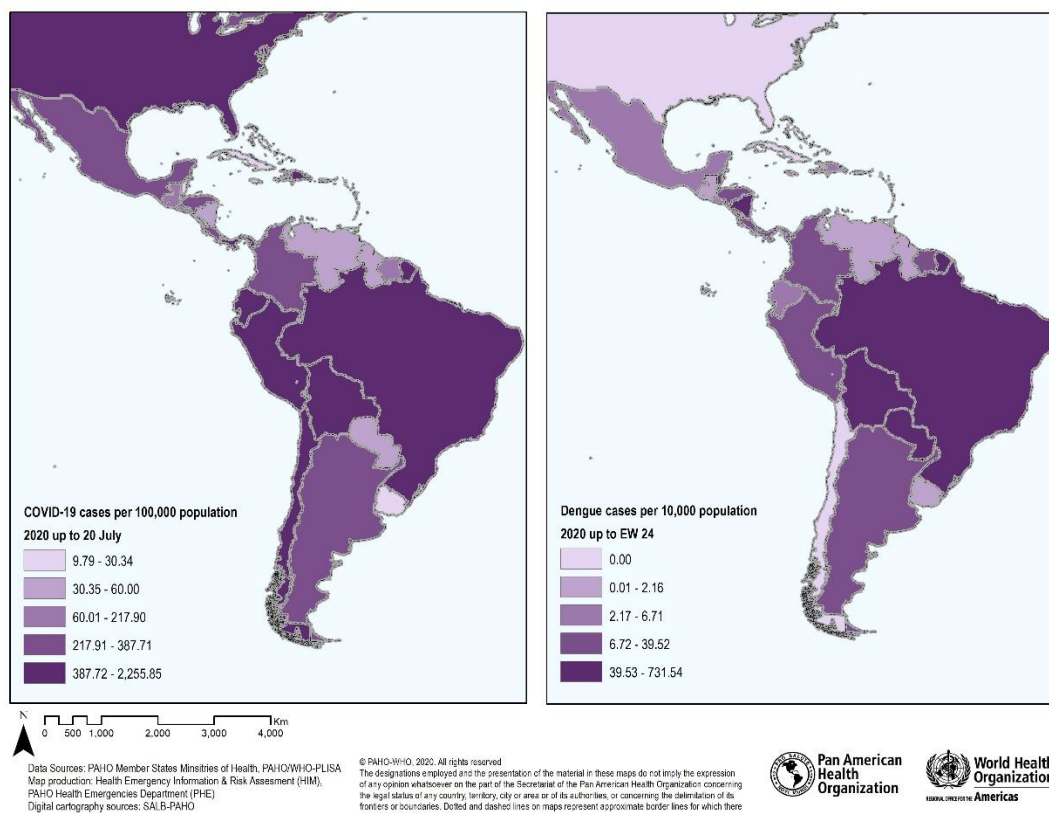
In the context of the current COVID-19 pandemic, the potential seasonal increase in dengue cases in endemic countries represents a challenge for both the population at large and health service providers who would be responding to concomitant emergencies (**Figure 1**). This situation is especially worrisome in areas where highly vulnerable communities to dengue and other arboviruses and COVID-19 reside.

Factors that may influence the response capacity of endemic countries and territories due to the COVID-19 pandemic include, but are not limited to:

- Possible underreporting of dengue cases due to the exhaustion of healthcare services or because patients opt not to go to healthcare services.
- Delayed medical consultation of dengue cases with warning signs as a result of COVID-19 pandemic containment measures or as the result of fear of COVID-19 exposure in health care services by the population.
- Focus of the health care services on COVID-19 response.
- Interruption of fumigation activities (restrictions on the mobility of healthcare workers or other teams in charge of fumigation).
- Limited numbers of healthcare professionals with experience in handling dengue cases and / or COVID-19.
- Exhaustion of specialized care beds.
- Laboratory overload for confirmation of severe cases and lack of supplies for virologic surveillance.

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**Figure 1.** Incidence of COVID-19 and dengue in the Americas. Epidemiological Week (EW) 1 to 28 of 2020.



## Situation by subregion

### The Central American Isthmus and Mexico<sup>1</sup>

As of 27 July 2020, there are six countries that have reported more than 10,000 accumulated cases of COVID-19: Costa Rica, El Salvador, Guatemala, Honduras, Mexico, and Panama. The sum of cases reported in the eight countries represented has reached 568,463 cumulative COVID-19 cases, including 48,473 deaths.

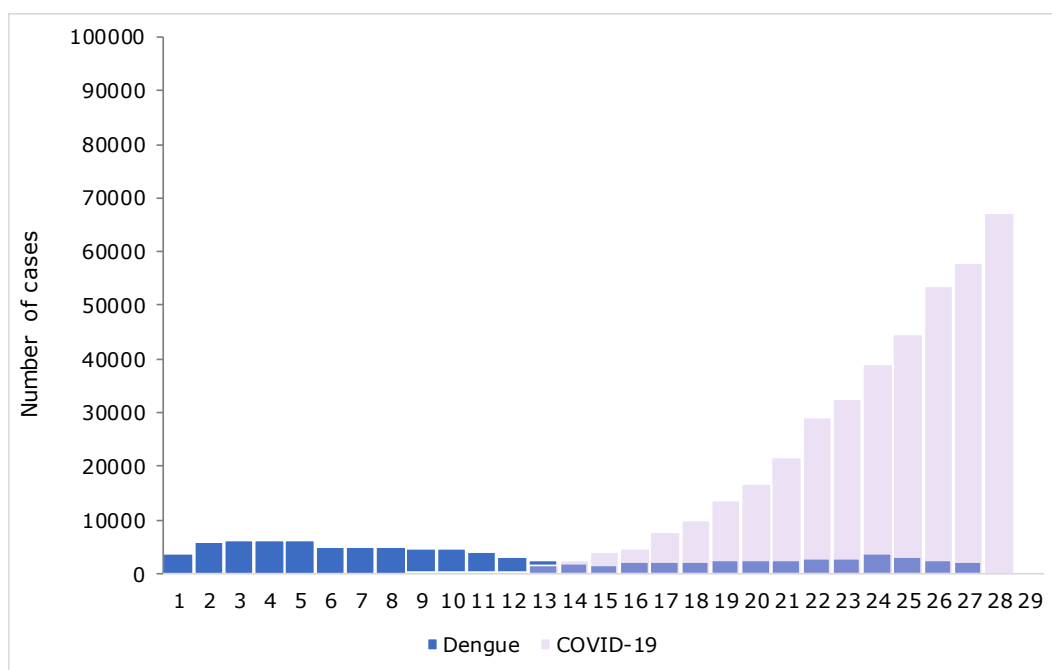
With respect to dengue, there has been a 25% decrease in the number of reported cases and a 72% decrease in the number of reported deaths in comparison to the data reported between epidemiological week (EW) 1 and EW 28 of 2019 and 2020; 132,224 cases and 122 deaths in 2019 compared to 98,791 cases and 34 deaths in 2020. While the overall numbers being reported represent a decrease in dengue cases, there are three countries that individually are reporting an increase in 2020 compared to the numbers they reported for the same period in 2019. Belize is showing a 68% increase (1,743 cases in 2020 vs. 1,040 cases in

<sup>1</sup> Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, and Panama.

2019), Costa Rica an 82% increase (4,860 cases in 2020 vs. 2,669 cases in 2019), and Mexico an 11% increase (36,327 cases in 2020 vs. 32,856 cases in 2019).

In highlighting the co-existence of dengue and COVID-19 cases in the Central American Isthmus and Mexico (**Figure 2**), a sustained increase in COVID-19 cases and an overall decrease in dengue cases is visible as of EW 6 of 2020. This decrease should be interpreted with caution due to the seasonal behavior of dengue, where an increase in cases is expected between May and November.

**Figure 2.** Distribution of dengue and COVID-19 cases by epidemiological week (EW). Central American Isthmus and Mexico. EW 1 to EW 28 of 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 and in the WHO Coronavirus Disease (COVID-19) dashboard. Available at: <https://bit.ly/2EslfUp> and <https://covid19.who.int/>. Last accessed 19 July 2020.

### Andean subregion<sup>2</sup>

As of 27 July 2020, the five countries in the Andean subregion are among those that have reported more than 10,000 accumulated cases of COVID-19 each, with a total of 799,826 confirmed COVID-19 cases reported, including 35,011 deaths.

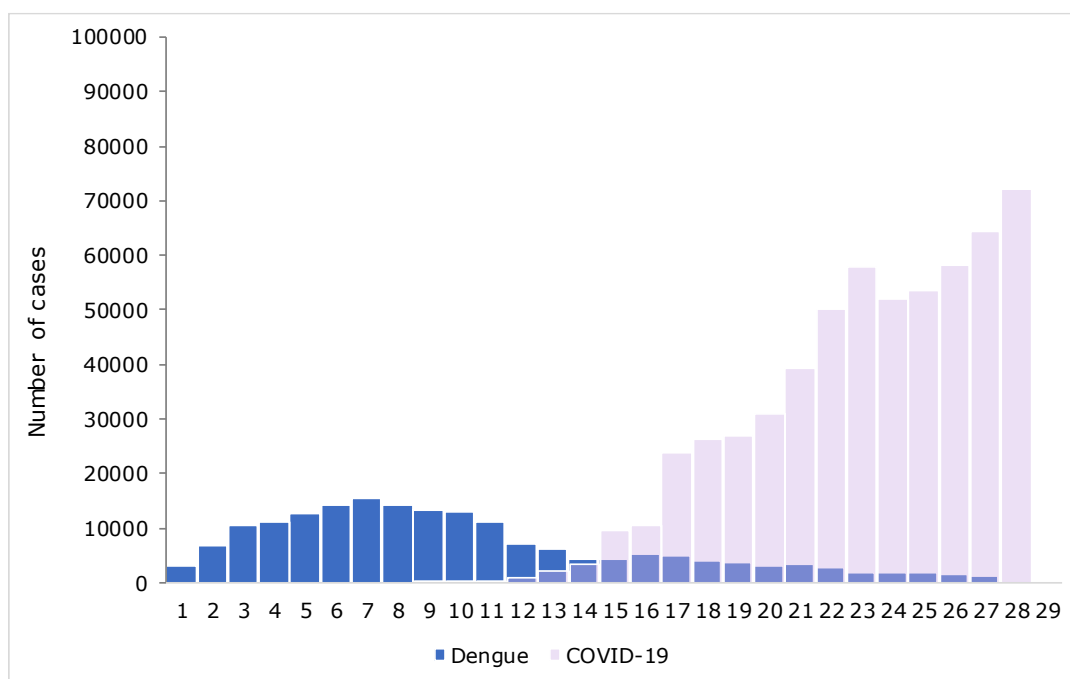
With respect to dengue, three of the five countries have reported a large increase in dengue cases in the first EWs of 2020 compared to the same period of 2019. The increases reported are 727% in **Bolivia** (82,793 cases in 2020 vs. 10,007 in 2019) a 143% increase in **Ecuador** (11,639

<sup>2</sup> Bolivia, Colombia, Ecuador, Peru, and Venezuela

cases in 2020 vs. 4,799 cases in 2019), and a 263% increase in **Peru** (27,975 cases in 2020 vs. 7,689 cases in 2019).

Dengue cases and COVID-19 were also reported concomitantly in this subregion (**Figure 3**). A sustained increase is observed in COVID-19 cases, while the number of dengue cases shows a decrease from EW 7 of 2020, potentially related to the start of domestic confinement measures aimed at preventing the spread of COVID-19. The confinement measures considerably and progressively reduced the mobility of people in cities and consequently of dengue patients and asymptomatic carriers. Additionally, the drop in temperatures with the onset of winter in the southern hemisphere decreases the transmitting mosquito population. An increase in dengue cases the countries of the southern hemisphere of the Andean subregion is not expected this season. However, the behavior of dengue in some areas of Colombia, Ecuador, Peru, and Venezuela should be observed with caution.

**Figure 3.** Distribution of dengue and COVID-19 cases by epidemiological week (EW). Andean subregion. EW 1 to EW 28 of 2020.



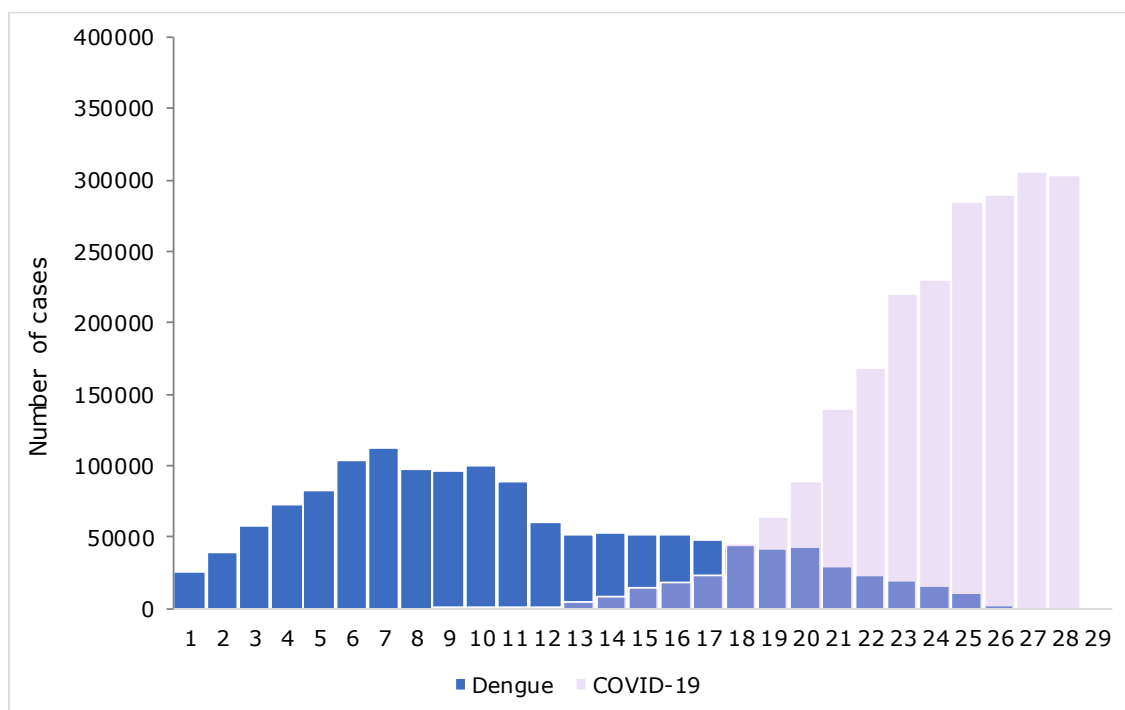
**Source:** Data entered into the Health Information Platform for the Americas (PLISA, PAHO / WHO) by the Ministries and Institutes of Health of the countries and territories of the Region and in the WHO COVID-19 data table. Available at: <https://bit.ly/2EslfUp> and <https://covid19.who.int/>, Last accessed 19 July 2020.

### Southern Cone<sup>3</sup>

As of 27 July 2020, three of the five countries, Argentina, Brazil and Chile, in the Southern Cone are among those that reported more than 10,000 cumulative cases of COVID-19 each; the cumulative total of COVID-19 cases reported in the subregion reached 2,935,176 confirmed COVID-19 cases, including 99,222 deaths.

**Figure 4** shows the behavior of the reported dengue and COVID-19 cases in the Southern Cone. A sustained increase in dengue cases is observed between EW 2 and EW 7 of 2020, followed by a progressive decrease from EW 8 of 2020; this decrease may be related to the confinement measures implemented for COVID-19.

**Figure 4.** Distribution of dengue and COVID-19 cases by epidemiological week (EW). Southern Cone subregion. EW 1 to EW 28 of 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 and in the WHO Coronavirus Disease (COVID-19) dashboard. Available at: <https://bit.ly/2EsLfUp> and <https://covid19.who.int/>. Last accessed 19 July 2020.

During the summer period, in the Southern Cone, the countries that presented a significant increase in dengue cases in the first EW of 2020, compared to the same period in 2019, are **Argentina** with an increase of 2,426% (79,775 cases in 2020 vs. 3,158 cases in 2019) and **Paraguay** with an increase of 2,698% (219,913 cases in 2020 vs. 7,859 cases in 2020). The number of dengue cases in the Southern Cone countries is not expected to increase in the coming weeks, due to the start of the winter season which has less activity of the vector mosquito.

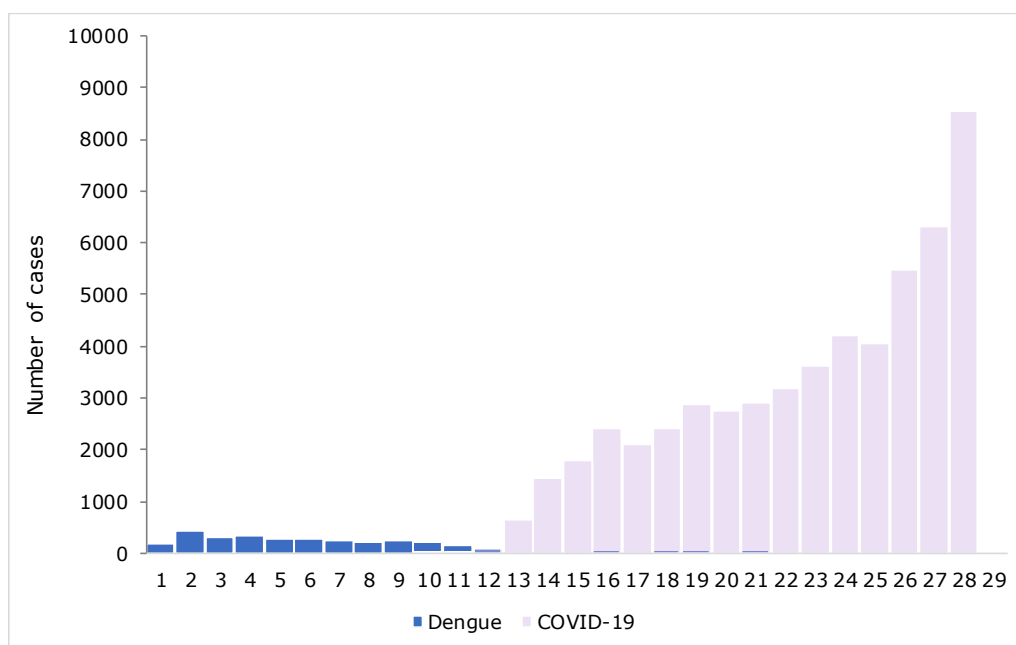
<sup>3</sup> Argentina, Brazil, Chile, Paraguay, and Uruguay

## Latin Caribbean<sup>4</sup>

As of 27 July 2020, the **Dominican Republic** and **Puerto Rico** are among the countries/territories that have reported more than 10,000 cases of COVID-19 each: with the Latin Caribbean reaching 82,119 confirmed COVID-19 cases cumulatively, including 1,371 deaths.

In this subregion, while a sustained increase in the epidemic curve of COVID-19 is observed, the dengue epidemic curve presents an almost constant number of weekly cases, with slight variations (**Figure 5**).

**Figure 5.** Distribution of dengue and COVID-19 cases by epidemiological week (EW). Latin Caribbean subregion. EW 1 to EW 28 of 2020.



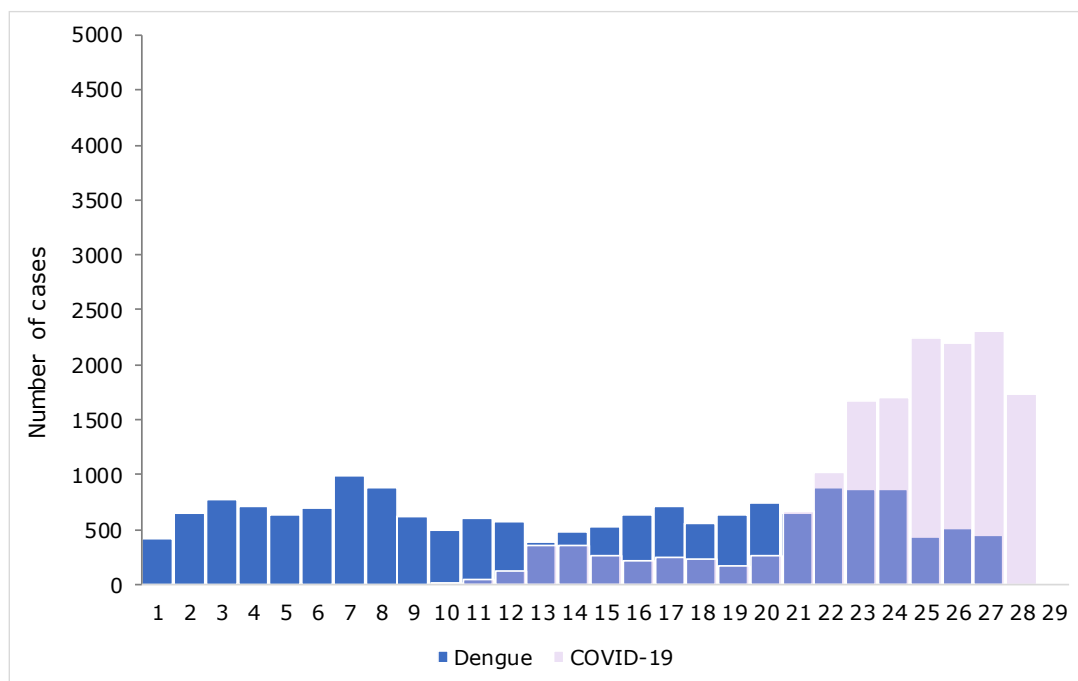
**Source:** Data entered into the Health Information Platform for the Americas (PLISA, PAHO / WHO) by the Ministries and Institutes of Health of the countries and territories of the Region and in the WHO Coronavirus Disease (COVID-19) dashboard. Available at: <https://bit.ly/2EslfUp> and <https://covid19.who.int/>. Last accessed 19 July 2020.

<sup>4</sup> Cuba, the Dominican Republic, and Puerto Rico

## Non-Latin Caribbean<sup>5</sup>

As of 27 July 2020, no country or territory in this subregion has accumulated more than 10,000 COVID-19 cases individually; together the confirmed cases reported reached 19,941 confirmed COVID-19 cases, including 353 deaths. In this subregion, **Haiti** and **French Guiana** have reported the most confirmed COVID-19 cases, with 7,315 and 7,514 respectively.

**Figure 6.** Distribution of dengue and COVID-19 cases by epidemiological week (EW). Non-Latin Caribbean subregion. EW 1 to EW 28 of 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 and in the WHO Coronavirus Disease (COVID-19) dashboard. Available at: <https://bit.ly/2EsLfUp> and <https://covid19.who.int/>. Last accessed 19 July 2020.

With respect to dengue, the greatest increase in cases between EW 1 and EW 28 of 2020 compared to the same period of 2019, occurred in **French Guiana** with a 13,958% increase (4,358 cases in 2020 vs. 31 cases in 2019), **Guadeloupe** with a 2,991% increase (5,935 cases in 2020 vs. 192 cases in 2019), **Martinique** with a 1,244% increase (5,783 cases in 2020 vs. 430 cases in 2019), **Saint Martin** with a 9,275% increase (1,875 cases in 2020 vs. 20 cases in 2019), and **Saint Barthelemy** which had no cases in 2019 and reported 521 cases in 2020.

<sup>5</sup> Anguilla, Antigua and Barbuda, Aruba, the Bahamas, Barbados, Bermuda, Bonaire, St. Eustatius and Saba, the British Virgin Islands, the Cayman Islands, Curacao, Dominica, Grenada, Guadeloupe, Guyana, French Guiana, Haiti, Jamaica, Martinique, Montserrat, Saint Barthelemy, Saint Kitts and Nevis, Saint Lucia, Saint Martin, Saint Vincent and the Grenadines, Sint Maarten, Suriname, Trinidad and Tobago, Turks and Caicos, and the US Virgin Islands.

## Advice to national authorities

Due to the coexistence of COVID-19 with dengue and other arboviruses in various countries and territories in the Americas, the Pan American Health Organization / World Health Organization (PAHO/WHO) calls on Member States to continue surveillance, diagnosis, and adequate treatment of COVID-19 while simultaneously increasing efforts to facilitate access of patients with dengue and/or other arboviruses to healthcare services, the adequate treatment of these cases, and ensuring appropriate triage of patients both for the timely detection of dengue warning signs, as well as, to determine if isolation is warranted and reduce the risk of infection by SARS-CoV-2 acquired in healthcare services.

The guidelines disseminated and published in the PAHO/WHO Epidemiological Update on dengue and arboviruses of 10 June 2020, available at: <https://bit.ly/2X3USiK>, remain in force as do guidelines published in the PAHO/WHO Epidemiological Update on Coronavirus disease (COVID-19) of 23 June 2020, available at: <https://bit.ly/2X52XDJ>.

## References

1. PAHO/WHO. Health Information Platform for the Americas (PLISA). Available at: <https://bit.ly/2EsLfUp>
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3. PAHO/WHO. Epidemiological Update: Dengue and other arboviruses. 10 June 2020, Washington, D.C.; 2020. Available at: <https://bit.ly/2X3USiK>
4. PAHO/WHO. Epidemiological Update: Coronavirus disease (COVID-19). 23 June 2020, Washington, D.C.; 2020. Available at: <https://bit.ly/2X52XDJ>
5. WHO. Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic. Available at: <https://bit.ly/2CO15bT>