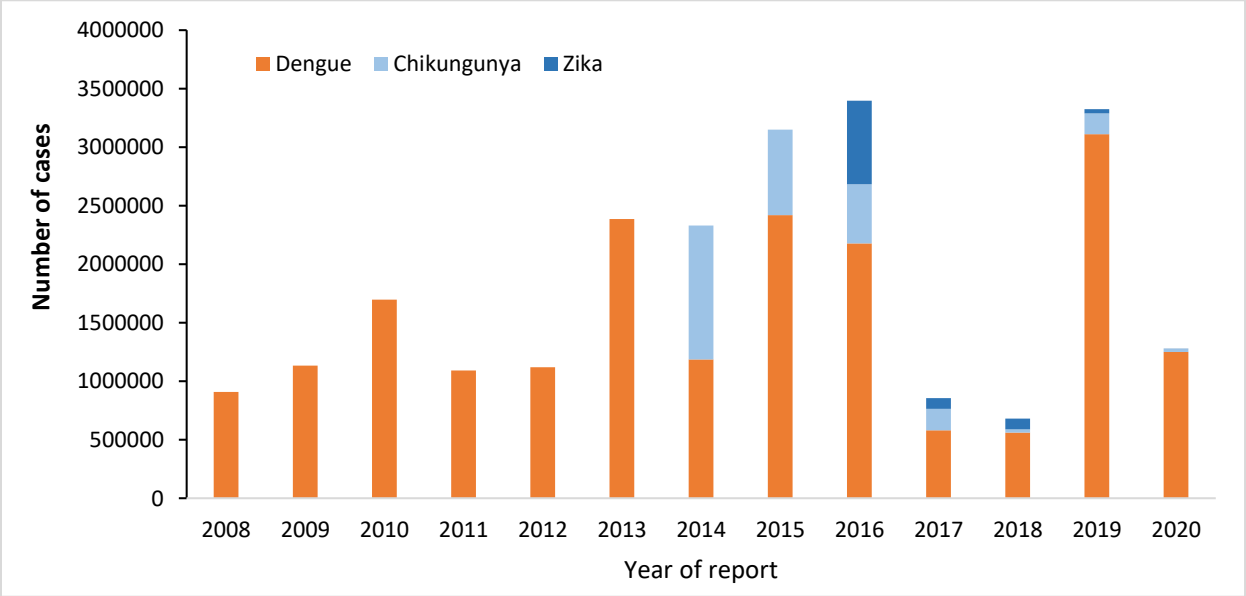
Epidemiological Update
Dengue and other Arboviruses

10 June 2020

Situation summary

In the Region of the Americas, between epidemiological week (EW) 1 and EW 21 of 2020, a total of 1,645,678 cases[1] of arboviral disease were reported. Of those, 1,600,947 (97.3%) were dengue cases, 37,279 were chikungunya cases, and 7,452 were Zika cases (**Figure 1**).

Figure 1. Distribution of reported cases of dengue, chikungunya, and Zika by year of report. Region of the Americas, 2008-2020 (up to EW 21 of 2020).



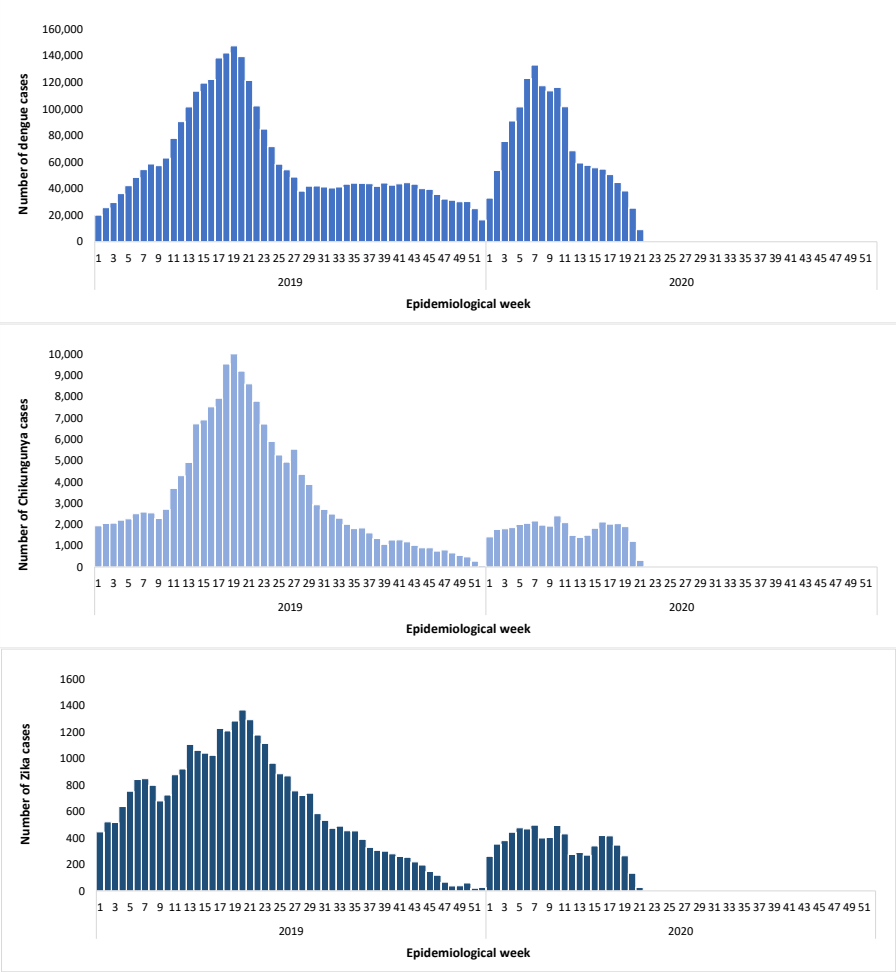
Source: Data entered into the Health Information Platform for the Americas (PLISA, PAHO / WHO) by the Ministries and Institutes of Health of the countries and territories of the Region. Available at: https://www.paho.org/data/index.php/en/

In the Region of the Americas, the total number of cases of arboviral disease reported in 2020 as of EW 21 of 2020 represents approximately a 10% relative decrease compared to the same period in 2019, which was an epidemic year (**Figure 2**).

[1] Data available in the Health Information Platform for the Americas (PLISA, PAHO/WHO), accessed on 5 June 2020 Available at: https://bit.ly/314Snw4

Suggested citation: Pan American Health Organization / World Health Organization. Epidemiological Update: Arbovirus. 10 June 2020, Washington, D.C. PAHO / WHO. 2020

Figure 2. Distribution of cases of dengue, chikungunya, and Zika by epidemiological week (EW), Region of the Americas, 2019-2020 (up to EW 21 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. Available at: https://www.paho.org/data/index.php/en/

Dengue

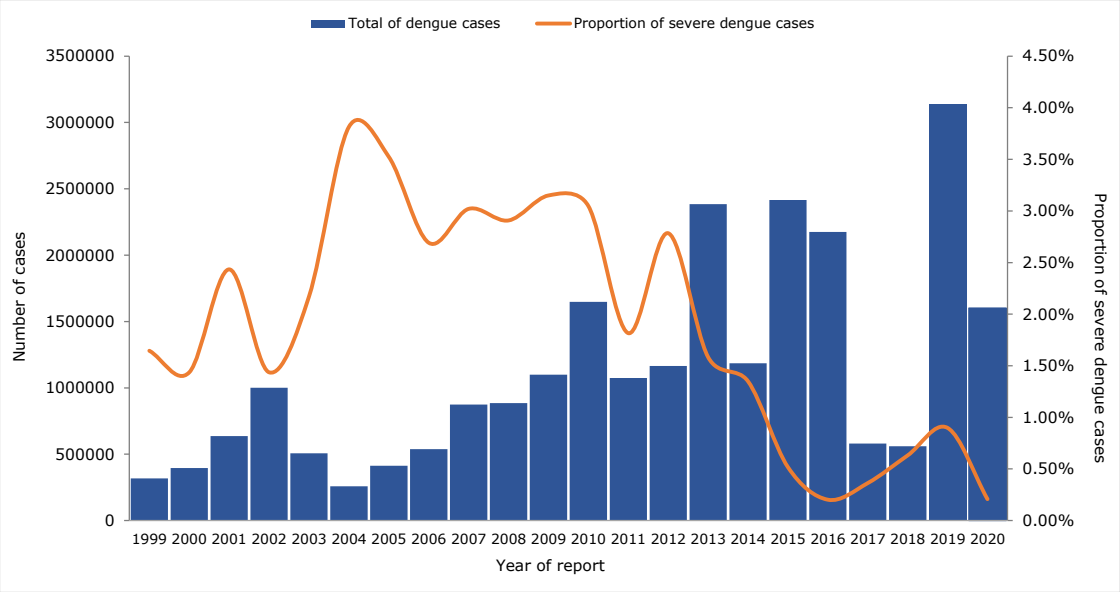
Between EW 1 and EW 21 of 2020, a total of 1,600,947 cases of dengue were reported in the Region of the Americas, with a cumulative incidence rate of 164.18 cases per 100,000 population. The highest cumulative incidence rates have been reported in the following subregions, in decreasing order: the Southern Cone with 412.8 cases per 100,000 population, the Andean Subregion with 123.2 cases per 100,000 population, the Non-Latin Caribbean with 62.9 cases per 100,000 population, and the Central American Isthmus and Mexico with 43.2 cases per 100,000 population.

In 2020 as of EW 21 of 2020, the highest proportions of dengue cases in the Region have been reported by the following countries: Brazil with 1,040,481 cases (65%), Paraguay with 218,798 cases (14%), the Plurinational State of Bolivia (Bolivia) with 82,460 cases (5%), Argentina with 79,775 cases (5%), and Colombia with 54,192 cases (3%).

In 2020, of the total of cases reported in the Region, 668,099 (42%) were laboratory-confirmed and 3,313 (0.21%) were classified as severe dengue (**Figure 3**). The highest number of severe dengue cases were reported by the following countries: Honduras with 1,169 cases, Colombia with 600 cases, and Brazil with 585 cases. Additionally, during the same period, a total of 553 deaths were reported in the Region (case-fatality rate: 0.034%).

All four dengue virus serotypes (DENV 1, DENV 2, DENV 3, and DENV 4) are present in the Americas Region. In 2020, co-circulation of all four serotypes was detected in Brazil, Colombia and Mexico, while in Guatemala, Guadeloupe, French Guiana, and Saint Martin, serotypes DENV 1, DENV 2, and DENV 3 have been co-circulating, and in Argentina and Paraguay, DENV 1, DENV 2, and DENV 4 have been co-circulating [2].

Figure 3. Distribution of reported dengue cases and proportion of severe dengue cases, by year of report. Region of the Americas, 1999-2020 (up to EW 21 of 2020).



Source: Data entered 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. More detailed information by country can be found at: https://bit.ly/3cwV3b7

The following is a summary of the epidemiological situation for dengue in selected countries in subregions with the highest cumulative incidence rates in 2020.

In the **Southern Cone**, the countries with the highest incidence rates are *Paraguay* (660.05 cases per 100,000 population), *Brazil* (370.4 cases per 100,000 population), and *Argentina* (111 cases per 100,000 population).

[2] More information on circulating serotypes by country is available at: PAHO/WHO Health Information Platform for the Americas (PLISA): https://bit.ly/314Snw4

In *Paraguay*, between EW 1 and EW 22 of 2020, a total of 218,744 cases[3] of dengue, including 72 deaths, were reported. Of the total of reported cases, 1,553 (0.7%) were laboratory-confirmed (RT-PCR), 47,692 (22%) were classified as probable cases, and 167 (0.08%) as severe dengue. During the first weeks of 2020, an upward trend of reported cases was observed, with a peak in EW 6 of 2020; since the first week of January, reported cases have been above the epidemic threshold. Of the total confirmed cases in Paraguay, 86% were reported in 2 health regions, Asuncion (63%) and Central (24%).

In 2020, the cumulative national incidence rate of reported cases was 660.05 cases per 100,000 population, which is higher compared to the same period in 2019 (66.27 per 100,000 population). Among the 19 health regions, the highest incidence rates were reported by Asuncion, with 5,906.33 cases per 100,000 population, and Boquerón, with 1,605.43 cases per 100,000 population.

By age group, the highest incidence rates in 2020 were among persons aged 20 to 39 years, with 813.60 cases per 100,000 population, and persons aged 15 to 19 years, with 720.92 cases per 100,000 population.

In 2020, the case-fatality rate at the national level is 0.14%. Deaths have been reported in the following departments: Central (35), Asunción (13), San Pedro (5), Concepción (5), Paraguarí (4), Cordillera (2), Presidente Hayes (2), Caaguazú (2), Amambay (1), Alto Paraná (1), Alto Paraguay (1), and Guairá (1).

As of EW 21 of 2020, among confirmed cases with serotype information, DENV 1 (0.06%), DENV 2 (8.37%), and DENV 4 (91.56%) have been identified as the circulating serotypes, with the latter predominating.

In *Brazil*, between EW 1 and EW 21 of 2020, a total of 1,040,481 cases of dengue were reported. Of the total cases, 532,076 (51%) were confirmed by laboratory or clinical-epidemiological criteria, including 342 confirmed deaths, and 20,986 remain under investigation. Of the total confirmed cases, 585 (0.05%) were classified as severe dengue.

In 2020, the cumulative national incidence rate of probable cases was 370.40 cases per 100,000 population. By geographical region, the highest incidence rate was reported in the Central-West with 928.1 cases per 100,000 population, followed by the South with 867.2 cases per 100,000 population, the Southeast with 311 cases per 100,000 population, the Northeast with 132.6 cases per 100,000 population, and the North with 90.6 cases per 100,000 population. Of the total probable cases reported, 35.3% (274,808 cases) were in the Southeast Region.

In 2020, the highest incidence rates by age group were reported among persons aged 20 to 24 years with 459.2 cases per 100,000 population, followed by persons aged 25 to 29 years with 431.0 cases per 100,000 population and persons aged 30 to 34 years with 416.7 cases per 100,000 population.

[3] Confirmed, probable, and suspected cases.

The case-fatality rate at the national level in 2020 is 0.04%. Of the total of deaths reported in 2020, 342 deaths were confirmed by laboratory or clinical-epidemiological criteria and 253 remain under investigation. The highest case-fatality rates were observed in the North and South regions (0.06% each), followed by the Central-West (0.05%), Southeast (0.04%), and Northeast (0.02%) regions.

As of EW 21 of 2020, all four serotypes, DENV 1, DENV 2, DENV 3, and DENV 4 have been identified as circulating.

In *Argentina*, between EW 1 and EW 20 of 2020, a total of 79,775 suspected cases of dengue were reported, of which 50,385 (63.1%) were confirmed by laboratory or clinical-epidemiological criteria, including 81 (0.16%) severe dengue cases and 25 confirmed deaths. Between EW 1 and EW 11 of 2020, an upward trend of reported cases was observed, after which the highest number of cases was reported between EW 11 and EW 17, followed by a decreasing trend—though still higher than that reported during the last two epidemic periods (2017-2018 and 2018-2019).

In 2020 as of EW 20, the cumulative national incidence rate of cases was 111 cases per 100,000 population. All 24 jurisdictions have reported cases of dengue, of which 6 only reported imported cases (without autochthonous viral circulation). By region, the highest cumulative incidence rates were reported in the Argentine Northwest, with 345 cases per 100,000 population and the Argentine Northeast, with 248 cases per 100,000 population. However, the highest number of cases was reported in the Central Region, with 19,414 autochthonous cases.

In 2020, the highest incidence rates of confirmed[4] cases by age group were reported among persons aged 20 to 24 years, with 131.6 cases per 100,000 population, and persons aged 25 to 34 years, with 129.3 cases per 100,000 population.

The case-fatality rate at the national level in 2020 is 0.049%. Of the 36 deaths reported in 2020, 25 were confirmed by laboratory and 11 remain under investigation.

As of EW 20 of 2020, serotypes DENV 1, DENV 2, and DENV 4 were identified as circulating, with DENV 1 predominating.

In the **Andean Subregion**, the countries with the highest incidence rates are *Bolivia* (735.20 cases per 100,000 population*)*, *Colombia* (207.8 cases per 100,000 population*),* and *Peru* (81.36 cases per 100,000 population*)*.

In *Bolivia*, between EW 1 and EW 21 of 2020, a total of 82,460 cases of dengue, including 19 deaths, were reported. Of the total reported cases, 14,469 were laboratory-confirmed and 215 were classified as severe dengue. An upward trend above the epidemic threshold was observed during the first weeks of 2020.

In 2020 as of EW 21, the cumulative national incidence rate of reported cases was 735.20 cases per 100,000 population, representing a 966.5% relative increase compared to the same

[4] Cases confirmed by laboratory or by clinical-epidemiological criteria.

period in 2019 (76.07 per 100,000 population). During the same period, the overall case-fatality rate at the national level was 0.023%.

In 2020 as of EW 21, serotypes DENV 1 and DENV 2 have been identified as circulating.

In *Colombia*, between EW 1 and EW 22 of 2020, a total of 55,585 cases of dengue were reported, of which 24,342 were laboratory-confirmed including 600 cases of severe dengue and 28 confirmed deaths. Between EW 8 of 2019 and EW 11 of 2020 an upward trend above the epidemic threshold was observed compared with historical trends (2013-2019).

In 2020 as of EW 22, the cumulative national incidence rate of reported cases was 207.8 cases per 100,000 population, representing a 58.4% relative increase compared to the same period in 2019 (170.9 per 100,000 population). Of the 36 territorial entities in the country, 14 had incidence rates above the national rate. The three departments with the highest incidence rates are as follows, in decreasing order: Valle de Cauca (817.4 cases per 100,000 population), Huila (756.3 cases per 100,000 population), and Caquetá (547.8 cases per 100,000 population).

In 2020, the highest incidence rates by age group were reported among children aged 5 to 9 years with 366.2 cases per 100,000 population, followed by 10 to 14-year-olds with 351.5 cases per 100,000 population, 0 to 4-year-olds with 251.8 cases per 100,000 population, and 15 to 19-year-olds with 238 cases per 100,000 population.

The case-fatality rate at the national level in 2020 is 0.05%. Of the 106 total deaths reported, 28 were laboratory-confirmed, 33 were discarded, and 45 remain under investigation.

In 2020 as of EW 22, all four serotypes, DENV 1, DENV 2, DENV 3, and DENV 4, have been identified as circulating.

In *Peru*, between EW 1 and EW 22 of 2020, a total of 26,543 cases of dengue were reported, of which 52.2% were laboratory-confirmed including 116 cases of severe dengue and 36 deaths. Between EW 39 of 2019 and EW 10 of 2020, an upward trend above the epidemic threshold was observed, mainly in the jungle region (Amazon plains and central and southeastern jungle), followed by a decreasing trend and subsequently a peak in EW 16 of 2020; the average number of cases during the last three weeks at the country level was 769 cases per week.

In 2020 as of EW 22, the cumulative national incidence rate of reported cases was 81.36 cases per 100,000 population, which is higher compared to the same period in 2019 (13.32 cases per 100,000 population). Of the 24 departments of the country, 8 had incidence rates above the national rate. The three departments with the highest incidence rates are as follows, in decreasing order: Madre de Dios (1,913.57 cases per 100,000 population), Loreto (669.45 cases per 100,000 population) and Ica (566.87 cases per 100,000 population).

In 2020, the highest incidence rates by age group were reported among persons aged 12 to 17 years with 119.8 cases per 100,000 population, followed by persons aged 18 to 29 years with 107.11 cases per 100,000 population and 0 to 11 years with 74.95 cases per 100,000 population.

The case-fatality rate at the national level in 2020 was 0.14%. Deaths have been reported in the following departments: Loreto (16), Madre de Dios (9), Ica (3), San Martin (3), Ucayali (2), Ayacucho (1), Cusco (1) and Piura (1).

In 2020 as of EW 22, serotypes DENV 1 and DENV 2 have been identified as circulating. Serotype DENV 2, genotype Cosmopolitan, has been identified as circulating in Madre de Dios Department.

In the **Central American Isthmus and Mexico Subregion,** the countries with the highest incidence rates are *Nicaragua* (411.81 cases per 100,000 population*)* and *Honduras* (140.16 cases per 100,000 population*)*.

In *Nicaragua*, between EW 1 and EW 22 of 2020, a total of 25,882 suspected cases of dengue were reported, of which 694 (2.7%) were laboratory-confirmed; no deaths were reported. Of the total suspected cases, 25 (0.1%) were classified as severe dengue.

In 2020 as of EW 22, the cumulative national incidence rate of reported cases was 411.81 cases per 100,000 population. In the same period, DENV 2 serotype was identified.

In *Honduras*, between EW 1 and EW 21 of 2020, a total of 13,030 suspected cases of dengue, of which 75 (0.6%) were laboratory-confirmed including 9 deaths. Of the total suspected cases, 1,169 (9%) were classified as severe dengue[5].

In 2020 as of EW 21, the cumulative national incidence rate of reported cases was 140.16 cases per 100,000 population. The departments with the highest incidence are as follows, in decreasing order: Gracias a Dios (308.59 cases per 100,000 population), El Paraíso (299.10 cases per 100,000 population), Islas de la Bahía (271.62 cases per 100,000 population), Yoro (240.77 cases per 100,000 population), Francisco Morazán (211.53 cases per 100,000 population), Colón (172.01 cases per 100,000 population), Cortes (157.55 cases per 100,000 population), and Atlántida (150.29 cases per 100,000 population).

The overall case-fatality rate at the national level in 2020 was 0.07%. Deaths have been reported in the following departments: Cortes (4), Francisco Morazán (4), and El Paraíso (1).

In 2020 as of EW 21, serotypes DENV 1 and DENV 2 have been identified as circulating.

In the **Non-Latin Caribbean,** the territories with the highest incidence rates are: *Saint-Martin* (4,462.5 cases per 100,000 population*), Saint-Barthelemy* (3,566.7 cases per 100,000 population*), Guadeloupe* (1,396 cases per 100,000 population) and *Martinique* (1,160 cases per 100,000 population).

In *Saint-Martin,* between EW 3 and EW 22 of 2020, a total of 1,415 suspected cases of dengue were reported, of which 353 were laboratory-confirmed including one severe fatal case. A stable trend of the epidemic has been observed for several weeks.

[5] In 2019, the high proportion of cases of severe dengue in Honduras is due to the fact that dengue cases with warning signs were included in this clinical classification. In 2020, dengue cases with warning signs are no longer being included as severe dengue.

In 2020, the cumulative national incidence rate is 4,215 cases per 100,000 population, higher than the incidence rate during the same period in 2019 (76 cases per 100,000 population) and exceeding that observed over the past 5 years. Three active clusters of dengue cases have been identified in the following areas: Cul-de-Sac, Orient Bay, and Bay Nettle. As of EW 21 of 2020, serotypes DENV 1, DENV 2, and DENV 3, have been identified, with DENV 1 predominating.

In *Saint-Barthélemy*, between EW 49 of 2019 and EW 22 of 2020, a total of 392 suspected cases of dengue have been reported, of which 133 were laboratory-confirmed; no severe cases of dengue or deaths have been reported. An upward trend has been observed since EW 49 of 2019.

In 2020, the cumulative national incidence rate is 3,645 cases per 100,000 population. Very few cases have been reported over the past 4 years. Four active clusters of dengue cases have been identified in the following areas: Gustavia, Vittet, Grand Cul de Sac, and Saline. In 2020, serotypes DENV 1 and DENV 2 have been identified, with DENV 2 predominating.

In *Guadeloupe*, between EW 42 of 2019 to EW 22 of 2020, a total of 8,560 cases of dengue were reported; no severe cases of dengue or deaths were reported. An upward trend above the epidemic threshold has been observed since EW 42 of 2019, and a stable trend above the epidemic has been observed for several weeks.

In 2020 as of EW 21, the cumulative national incidence rate of reported cases is 1,396 cases per 100,000 population, higher than that reported during the same period in 2019 (84 cases per 100,000 population) and has exceeded that observed during the past 5 years. The highest incidence rates (more than 1,000 clinical cases per 100,000 population) have been reported in the following 5 municipalities: Petit-Bourg, Le Gosier, Saint-François, Vieux-Habitants, and Bouillante. In 2020, the serotypes that have been identified are DENV 1, DENV 2, and DENV 3, with DENV 2 predominating.

In *Martinique*, between EW 45 of 2019 and EW 22 of 2020, a total of 5,200 suspected cases of dengue have been reported, including 5 severe cases i and one death. An upward trend above the epidemic threshold has been observed since EW 45 of 2019.

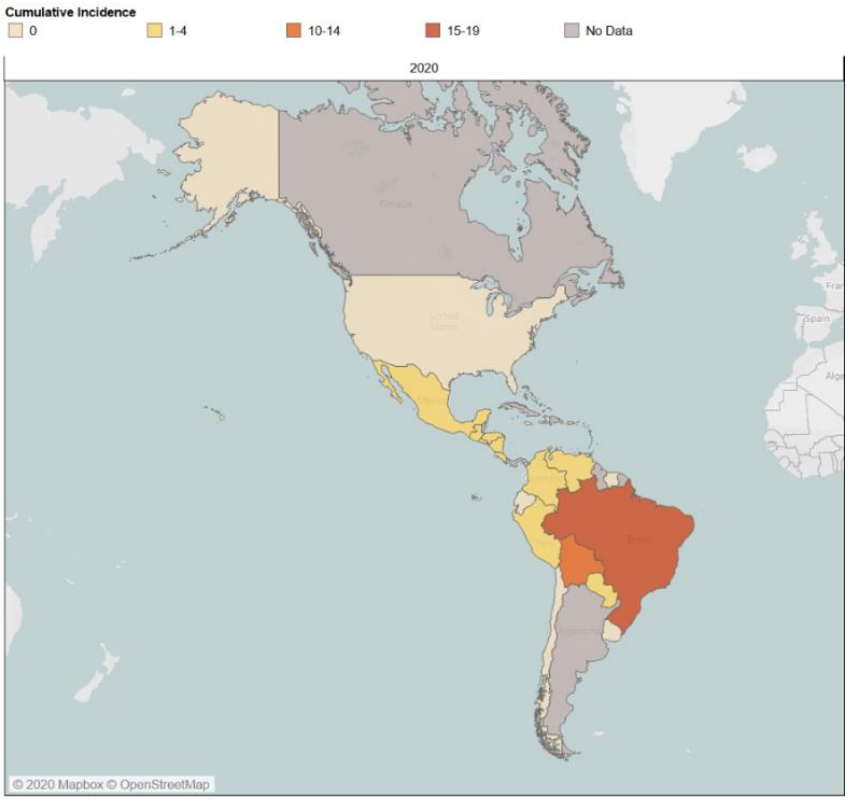
In 2020, the cumulative national incidence rate of reported cases is 1,160 cases per 100,000 population, higher than that reported during the same period in 2019 (117 cases per 100,000 population) and has exceeded that observed during the past 5 years. The highest incidence rates have been reported in the following 9 municipalities: Marin, Sainte-Anne, Sainte-Luce, Rivière-Salée, Trois-Ilets, Trinité, Schoelcher, Bellefontaine, and Morne-Vert;five of these municipalities are in the Southern part of the island. In 2020, the serotypes that have been identified are DENV 2 and DENV 3, with DENV 3 predominating.

Chikungunya

Between EW 1 and EW 21 of 2020, a total of 37,279 chikungunya cases were reported in 11 of the 24 countries and territories in the Region of the Americas. Most of the cases (95%) were reported by Brazil, with 35,447 cases of chikungunya. During the same period, the cumulative incidence rate in the Region was 3.82 cases per 100,000 population. The countries with the highest incidence rates were Brazil, with 17 cases per 100,000 population, and Bolivia, with 13.3 cases per 100,000 population. (**Figure 4**)

In 2020 as of EW 21, 10 imported cases of chikungunya were reported in the Region of the Americas, all in the United States of America. During the same period, 8 deaths attributed to chikungunya infection were reported, all in Brazil.

Figure 4. Cumulative incidence rate of chikungunya cases per 100,000 population. Region of the Americas, EW 1 to EW 21of 2020.



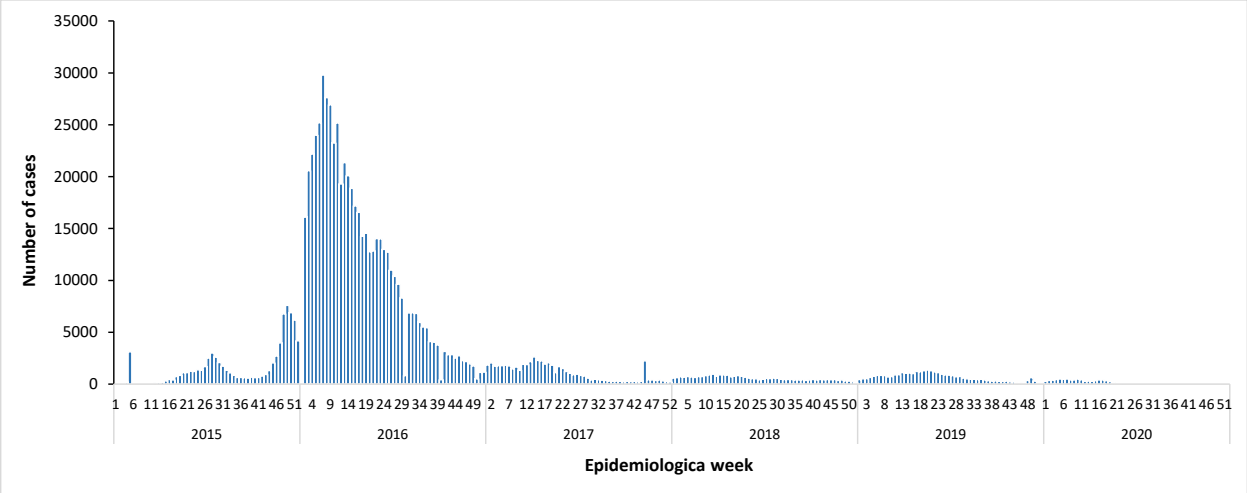
Source: Data entered the Health Information Platform for the Americas (PLISA, PAHO / WHO) by the Ministries and Institutes of Health of the countries and territories of the Region. More detailed information by country can be found at: https://bit.ly/37byBn6

Zika

Between EW 1 and EW 21 of 2020, a total of 7,452 cases of Zika have been reported, including one death (reported in Brazil), in the Region of the Americas.

The highest proportions of cases in the Region were reported in the following countries: Brazil with 6,387 cases (86% of cases in the Region), Bolivia with 537 cases (8.4%), and Guatemala with 133 cases (2%). Since its first detection in Brazil in March of 2015, local transmission of Zika has been confirmed in all countries and territories in the Americas, except for continental Chile, Uruguay, and Canada. In 2016, a total of 651,590 cases were reported, and a significant reduction in transmission was observed in the following years (**Figure 5**).

Figure 5. Distribution of reported cases of Zika by epidemiological week. Region of the Americas, 2019-2020 (up to EW 21 of 2020).



Source: Data entered 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. More detailed information by country can be found at: https://bit.ly/2BFupAp

Advice to Member States

The COVID-19 pandemic is placing immense pressure on health care and management systems worldwide. Notwithstanding the impact of COVID-19, there is a crucial need to sustain efforts to address dengue and other arboviral diseases in the framework of the Integrated Management Strategy for prevention and control of arboviral diseases (IMS-arbovirus), which includes management, epidemiology, patient care, laboratory, integrated vector management, and environment.

Member States are urged to make effective use of available resources, as staff, equipment, and supplies are likely to be diverted to provide response to the COVID-19 epidemic within countries. With this in mind, arboviral disease programs should aim to reduce the transmission and strive to identify early predictors of severe dengue disease at the primary healthcare level. Early identification and management of cases with warning signs will reduce the

number of dengue cases requiring hospitalization, alleviating additional strain to more complex levels of care which will be providing care to severe cases of COVID-19 infection.

Integrated surveillance

Countries are encouraged to continue the epidemiological surveillance and provide reports of suspected and confirmed dengue cases.

Since clustering of cases is common in both diseases (dengue and COVID-19), efforts must be made to analyze the spatial distribution of cases to enable a rapid local-level response of most affected areas.

Prior information of hotspots of dengue should be targeted for intensive vector control.

Sentinel entomological surveillance will help to assess the changes in the risk of vector-borne diseases, and impact of vector control measures.

Diagnostics

Many COVID-19 and dengue diagnostic tests are based on PCR, however they use different reagents and samples (oropharyngeal/nasopharyngeal swab for COVID-19 and blood for dengue).

Regarding serological tests, both viruses are not antigenically related (i.e., they belong to a different and distant viral family), therefore cross reaction is not expected.

Since laboratory services are a key component of epidemiological surveillance of dengue, in countries with simultaneous outbreaks of dengue and COVID-19, dengue virus detection and characterization should be maintained.

Case management

Measures to guarantee the adequate clinical management of suspected dengue cases must be a priority.

Capabilities at the primary health care level must be strengthened. Healthcare workers should focus on early clinical diagnosis and recognition of warning signs of severity in dengue (such as abdominal pain or tenderness, persistent vomiting, clinical fluid accumulation, mucosal bleed, lethargy, restlessness, liver enlargement >2 cm, and increase in hematocrit). In cases where dengue is suspected, healthcare workers should provide clear guidance to patients and/or families to monitor for warning signs and severe illness in and to seek immediate healthcare should these emerge. These measures will help to prevent the progression of illness to severe dengue and deaths, which in turn will also help to reduce the number of patients that need to be referred to hospitals, thus avoiding saturation of these facilities as well as the intensive care units.

At the same time, all secondary and tertiary level hospitals should be prepared to manage severe dengue cases.

Medical and paramedical personnel must strictly comply with the infection prevention and control guidelines issued for healthcare workers by national authorities in the context of COVID-19. Compliance with these measures will allow continuity to the main actions for the prevention and control of arboviral diseases.

Recently, important recommendations have been issued for the technical teams in charge of malaria control, which also apply to personnel involved in the care of arboviral diseases, namely:

- Ensure protection of healthcare workers and all personnel involved in the provision of healthcare, as patient care and exposure to healthcare settings could increase their risk of exposure to COVID-19.

- Healthcare workers must comply with national personal protection policies and procedures.

- Protection of patients with the recommended mitigation and prevention measures, since they may face a higher risk of exposure to COVID-19 in health centers.

- Patients must protect themselves by maintaining appropriate physical distance when arriving at places of care and while waiting for services.

Vector control

Source reduction of mosquito breeding sites and adult control measures should be implemented in areas affected by or at risk of dengue.

While social distancing measures are in place, households should be encouraged to work together in and around their homes to get rid of stagnant water, reduce and dispose of solid waste, and to ensure proper covering of all water storage containers. These measures can be done as a family activity.

In areas not observing strict social distancing measures, vector control measures targeting the larvae and the adult mosquitoes could be implemented while ensuring appropriate infection prevention measures (such as the use of personal protective equipment) for staff carrying out community-based control measures.

Vulnerable groups (elderly, pregnant women, infants, and the sick) should be encouraged to personal protective measures including the use of insect repellents.

Additional vector control measures such as larviciding, targeted indoor residual spraying and indoor space spraying can be used to control dengue outbreaks depending on the resources, capacity and action plans developed at the local level.

Spatial application of insecticides (ULV) is necessary with the aim of rapidly eliminating the adult mosquito population and reducing dengue transmission, and WHO prequalified insecticides are recommended (https://www.who.int/pq-vector-control/prequalified-

lists/en/), and preferably based on evidence of susceptibility of the local population of *Aedes* to the applied products.

The intradomicile application or targeted indoor residual spraying should be selectively directed at resting places of the *Aedes aegypti*, such as under furniture and on dark, wet surfaces. Precautions must be taken not to treat storage tanks for drinking and cooking water. This intervention in treated areas is effective for period of up to 4 months; and can be used in health centers, schools and places of worship. More details on this activity can be found in the document Control of *Aedes aegypti* in the scenario of simultaneous transmission of COVID-19. Available at: https://bit.ly/2UupY1R

Community involvement:

All efforts should be made to get community support for the prevention of both COVID-19 and dengue.

Simple Information, Education and Communication (IEC) materials can be disseminated through various media outlets (including social media) for both diseases where possible, in light of social distancing measures.

Since people are recommended to stay at homes as part of social distancing practices, households should be encouraged to eliminate mosquito breeding sources, both domiciliary and peri-domiciliary.

Highly productive mosquito breeding sites such as water storage containers (drums, overhead tanks, mud pots, etc.) should be targeted for prevention of breeding. Other breeding sites such as roof gutters and other water holding containers should also be cleaned periodically.

Local teams regularly know how to make this information more effective, and sometimes national campaigns and messages are not as effective as local initiatives.

In areas where schools and colleges have resumed classes, special sessions should be devoted for awareness campaigns for COVID-19 and dengue prevention. Media campaigns can continue for dengue prevention and control of Aedes mosquito breeding.

Sources of information

1. PAHO / WHO Health Information Platform for the Americas (PLISA). Available at: https://bit.ly/314Snw4

2. **Argentina** International Health Regulations (IHR) National Focal Point (NFP) report to PAHO/WHO received by email.

3. **Bolivia** International Health Regulations (IHR) National Focal Point (NFP) report to PAHO/WHO received by email.

4. **Brazil** International Health Regulations (IHR) National Focal Point (NFP) report to PAHO/WHO received by email.

5. **Colombia** International Health Regulations (IHR) National Focal Point (NFP) report to PAHO/WHO received by email.

6. **France** International Health Regulations (IHR) National Focal Point (NFP) report to PAHO/WHO received by email.

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9. **Peru** International Health Regulations (IHR) National Focal Point (NFP) report to PAHO/WHO received by email.

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