

Note: The Epidemiological Update publication schedule is being changed from weekly to bi-weekly until further notice. Accordingly, the next Zika-Epidemiological Update is scheduled for 11 August 2016.

Zika virus – Incidence and trends

To date, 42 countries and territories have confirmed local, vector-borne transmission of Zika virus disease in the Region of the Americas since 2015: Anguilla; Antigua and Barbuda; Argentina; Aruba; Barbados; Belize; Bolivia (Plurinational State of); Bonaire, Sint Eustatius, and Saba; Brazil; Colombia; Costa Rica; Cuba; Curaçao; Dominica; the Dominican Republic; Ecuador; El Salvador; French Guiana; Grenada; Guadeloupe; Guatemala; Guyana; Haiti; Honduras; Jamaica; Martinique; Mexico; Nicaragua; Panama; Paraguay; Peru; Puerto Rico; Saint Barthélemy; Saint Lucia; Saint Martin; Saint Vincent and the Grenadines; Sint Maarten; Suriname; Trinidad and Tobago; Turks and Caicos Islands; the United States Virgin Islands; and Venezuela (Bolivarian Republic of). In addition, five countries in the Americas have reported sexually transmitted Zika cases (Argentina, Canada, Chile, Peru, and the United States of America). Since the last Pan American Health Organization/ World Health Organization (PAHO/WHO) [Zika Epidemiological Update on 14 July 2016](#), Antigua and Barbuda and the Turks and Caicos Islands confirmed vector-borne autochthonous transmission of Zika virus (**Figure 1**).

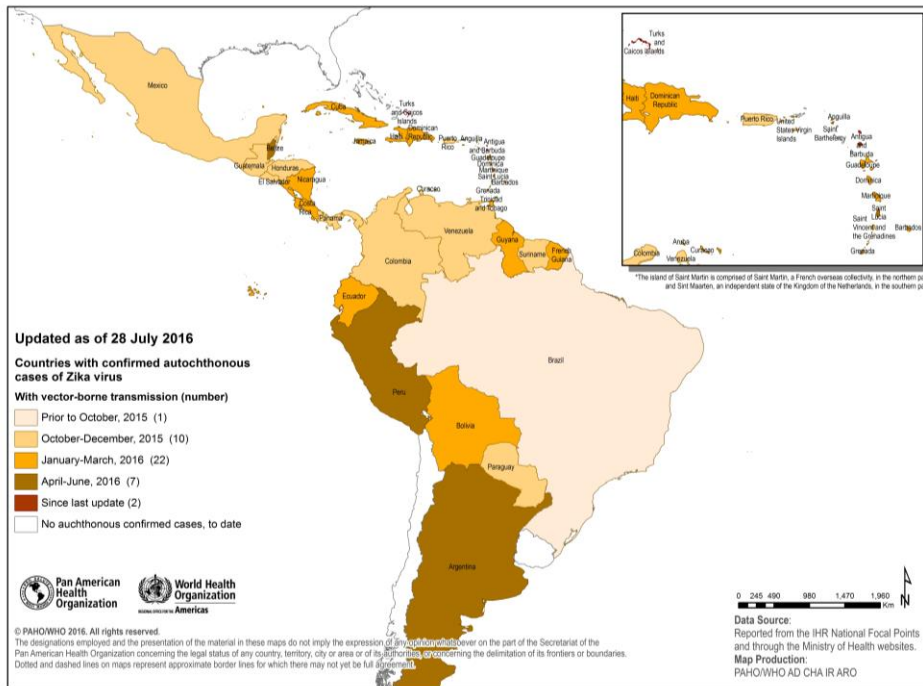
Additionally, Canada has reported 169 travel-related Zika virus disease cases detected as of 28 July 2016.

On 29 July 2016, the United States' Centers for Disease Control and Prevention (CDC) reported the detection of four cases of Zika virus infections that were likely caused by bites of local *Aedes aegypti* mosquitoes in the state of Florida. CDC is closely coordinating with Florida officials who are leading the ongoing investigations (see [full press release](#))

On 21 July 2016, the Oswaldo Cruz Foundation (Fiocruz) informed of the preliminary results of an entomological investigation in the state of Pernambuco where researchers detected the presence of *Culex quinquefasciatus* infected with Zika virus via quantitative RT-PCR. The mosquitoes were collected around residences of reported cases of Zika virus disease in Recife and Acroverde in the state of Pernambuco. [See full report](#).

In the last four weeks of reported data, an increasing trend in cases has been observed in Costa Rica, Ecuador, Guatemala, Jamaica, Mexico, Nicaragua, Puerto Rico, Saint Barthelemy, Saint Martin, the U.S. Virgin Islands, and Venezuela.

Figure 1. Countries and territories in the Americas with confirmed autochthonous (vector-borne) Zika virus cases, 2015-2016

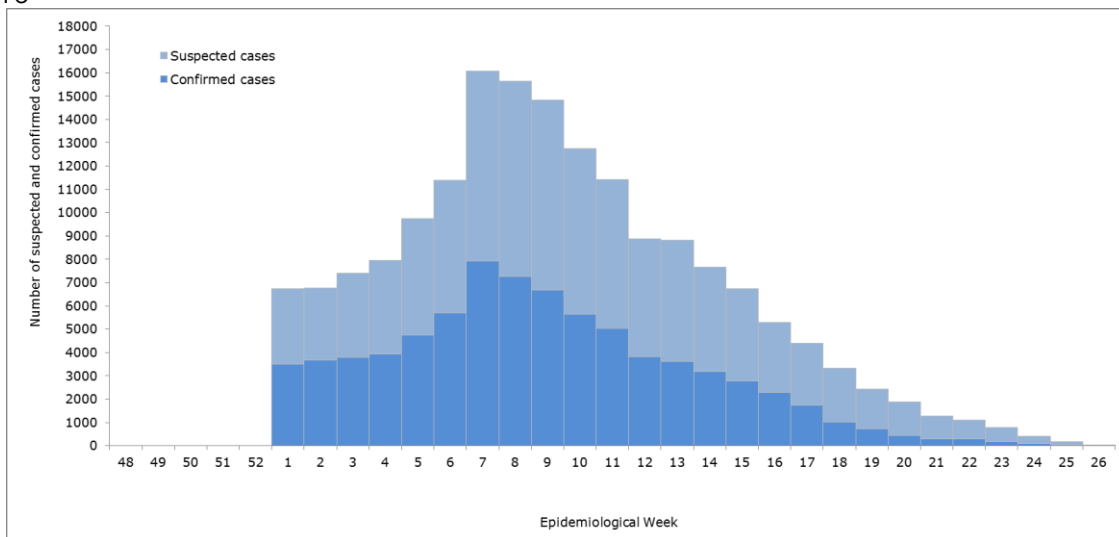


This week, the Zika epidemiological situation in Brazil, Guatemala, Mexico, Puerto Rico, and Saint Martin is highlighted below.

Brazil

Between epidemiological week (EW) 1 and EW 26 of 2016, Brazil has reported 165,907 suspected and confirmed Zika virus disease cases. The epidemiological curve shows a sustained decrease in cases starting in EW 8 of 2016 and onward (**Figure 2**).

Figure 2. Number of suspected and confirmed Zika virus cases. Brazil. EW 48 of 2015 to EW 26 of 2016

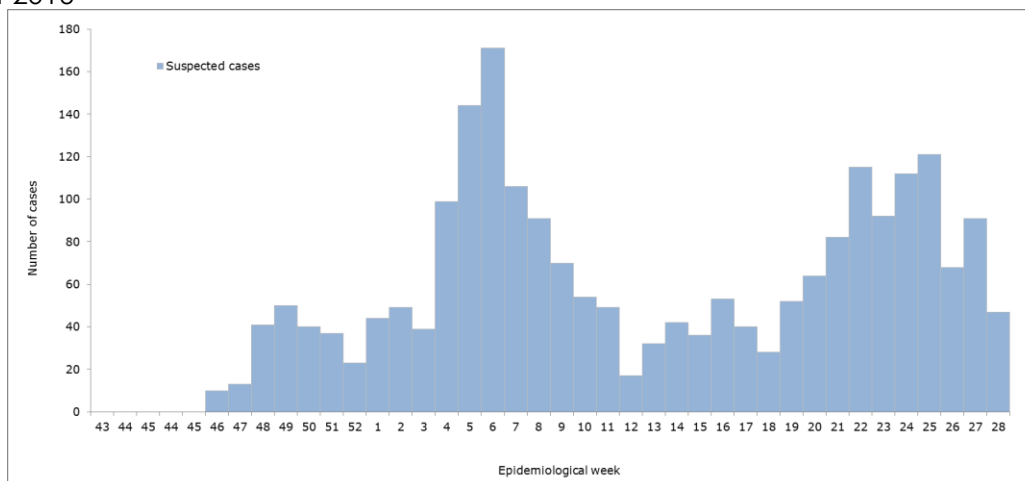


Source: Data provided by the Brazil Ministry of Health to PAHO/WHO

Guatemala

As of EW 28 of 2016, Guatemala has reported a total of 2,133 suspected Zika virus disease cases. The epidemiological curve of the cases reported in 2016 shows a bi-modal distribution, with a peak in cases observed in EW 6 and in EW 25 of 2016 (**Figure 3**).

Figure 3. Number of suspected and confirmed Zika virus cases. Guatemala. EW 43 of 2015 to EW 28 of 2016



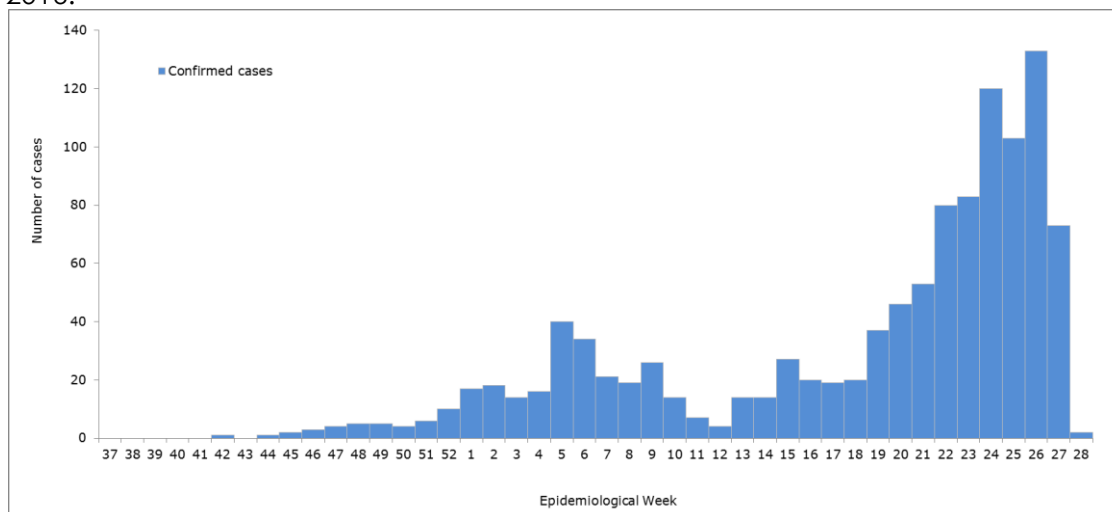
Source: Data provided by the Guatemala Ministry of Health to PAHO/WHO

Similar to that observed in other countries, women represent the majority of the cases (68%). With regards to the distribution of cases by age, those between 25 to 39 years of age represent the largest number of cases.

Mexico

As of EW 28 of 2016, Mexico had reported a total of 1,115 confirmed Zika virus disease cases. The epidemiological curve shows a marked increase starting in EW 19 of 2016 (**Figure 4**).

Figure 4. Number of suspected and confirmed Zika virus cases. Mexico. EW 37 of 2015 to EW 28 of 2016.

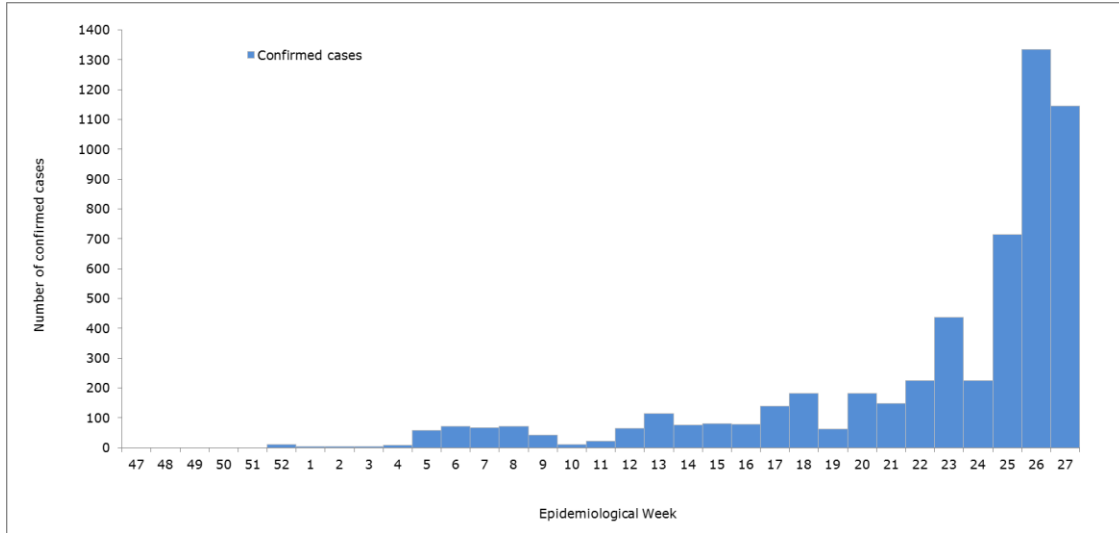


Source: Data provided by the Mexico Ministry of Health to PAHO/WHO

Puerto Rico

As of EW 27 of 2016, Puerto Rico has reported 5,572 confirmed cases of Zika virus disease. The epidemiological curve of these cases shows an increasing trend with an average of 855 cases per week in the last four weeks (**Figure 5**).

Figure 5. Number of confirmed Zika virus disease cases. Puerto Rico. EW 47 of 2015 to EW 27 of 2016.

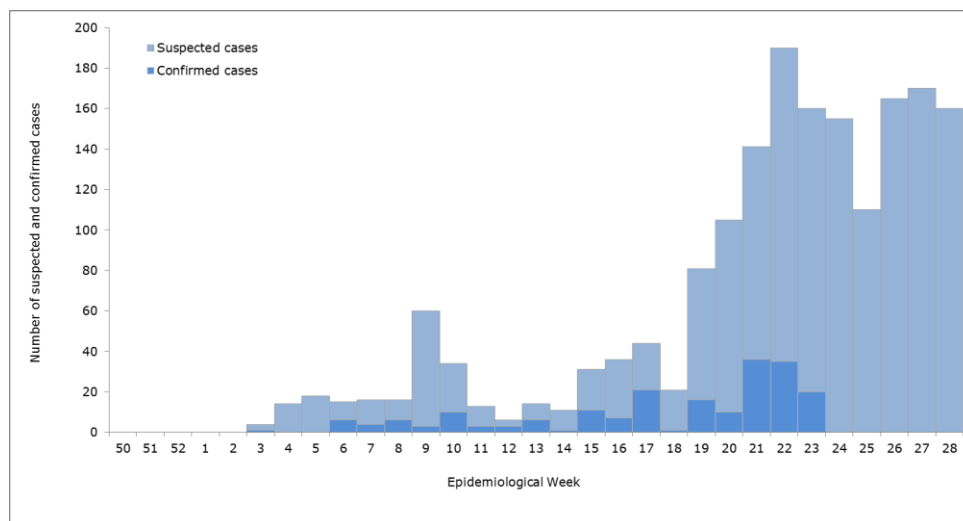


Source: Data published by the Puerto Rico Department of Health and reproduced by PAHO/WHO

Saint Martin

As of EW 28 of 2016, Saint Martin, the overseas collectivity of France, has reported 1,580 suspected Zika virus disease cases, of which 200 are confirmed. The epidemiological curve of the suspected cases shows an increasing trend with most reports in the last 8 weeks (**Figure 6**).

Figure 6. Number of suspected and confirmed cases of Zika virus disease. Saint Martin. EW 50 of 2015 to EW 28 of 2016



Source: Data published by the Cire Antilles Guyane and reproduced by PAHO/WHO

Congenital syndrome associated with Zika virus infection¹

Since the last PAHO/WHO [Zika Epidemiological Update on 14 July 2016](#), one additional country has reported cases of microcephaly associated with Zika virus infection, Paraguay, and six countries have updated the number of reported cases presented in **Table 1**. Additionally, the Dominican Republic, El Salvador, Guatemala, and Honduras are investigating congenital syndrome cases suspected to be associated with Zika virus infection.

On 25 July 2016, Canada reported a case of maternal-fetal transmission of Zika virus. The mother developed fever, muscle and joint pain, rash and conjunctivitis in her first trimester of pregnancy while on visit to Columbia. A positive PCR result in cerebrospinal fluid was reported after the birth of the infant and the infant appears to be generally healthy with no abnormalities detected.

Table 1. Countries and territories in the Americas with reported congenital syndrome associated with Zika virus infection.

Countries reporting congenital syndrome associated with Zika virus	Number of confirmed cases to date
Brazil	1,749
Colombia²	21
El Salvador	2
French Guiana	2
Martinique³	8
Panama	5
Paraguay	2
Puerto Rico⁴	1
United States⁵	19

Brazil

According to the Brazil Ministry of Health, between 22 October 2015 and 23 July 2016, a total of 8,703 suspected cases of microcephaly and other congenital malformations of the central nervous system (CNS) have been reported in newborns. Of these, 1,749 cases were confirmed in accordance with Brazil's Surveillance and Response Protocol⁶ (272 were confirmed by laboratory criteria). Out of the total cases reported, 3,892 were discarded as being due to noninfectious causes or not fitting the case definition, and 3,062 remain under investigation.

¹ Case definition available at: <http://bit.ly/1TpcVIS>

² [See full report.](#)

³ [See full report.](#)

⁴ [See full report.](#)

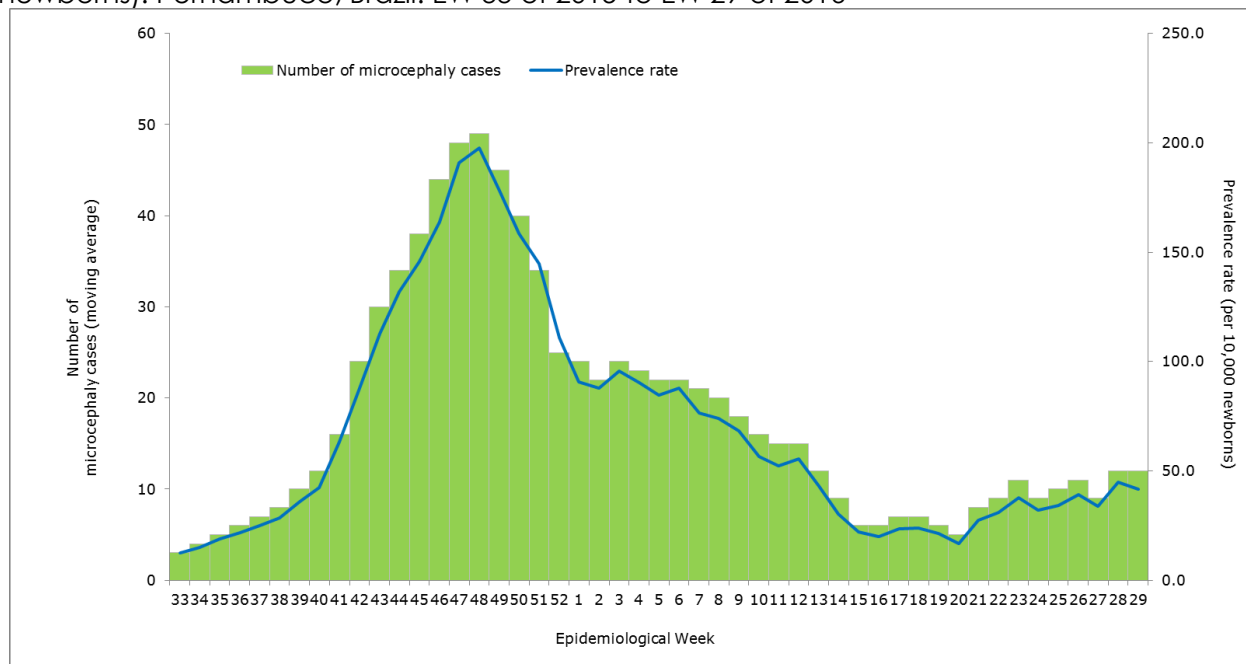
⁵ [See full report.](#)

⁶ Surveillance and Response Protocol. [See Protocol.](#)

Of the reported cases, 371 correspond to stillbirths or neonatal deaths (4.3% of the total); 106 of them were confirmed by laboratory criteria.⁷

In addition, between 1 August 2015 and 23 July 2016, there were 2,074 cases of microcephaly reported in the state of Pernambuco, including 78 deaths (3.8%). The temporal distribution of the prevalence rate of microcephaly per 10,000 newborns, shows a peak at EW 48 of 2015 followed by a decline that continued to EW 20 of 2016. In EW 21 of 2016, the prevalence rate rose again, reaching 41.7/10,000 newborns up to EW 29 of 2016 (**Figure 7**).

Figure 7. Moving average of microcephaly cases (3 weeks) and prevalence rate (10,000 newborns). Pernambuco, Brazil. EW 33 of 2015 to EW 29 of 2016



Source: Data provided by the Pernambuco State Secretary of Health to PAHO/WHO

Colombia

Between EW 1 and EW 28 of 2016 a total of 297 microcephaly cases were reported in Colombia. This number represents an increase compared to the expected historical annual mean (140 cases per year). Of the 297 cases notified, 21 cases were confirmed for association with Zika virus infection, 80 cases were discarded and 196 remain under investigation.

Guatemala

On 27 July 2016, the Guatemala Ministry of Health reported 16 probable cases of congenital syndrome associated with Zika virus⁸ (15 cases of microcephaly and one case of other congenital anomalies). According to the Ministry of Health, all of the mothers were in the first two trimesters of their pregnancy when they presented symptoms compatible with Zika virus disease. Laboratory test results and final classification of the cases are pending.

⁷ Information published on the Brazil, Ministry of Health website. [See full report.](#)

⁸ Access the case definition of [suspected case of congenital syndrome associated with Zika virus.](#)

Guillain-Barré syndrome (GBS) and other neurological disorders

To date, 11 countries and territories in the Region have reported an increase in cases of Guillain-Barré syndrome (GBS). Four other countries and territories have not recorded an increase in GBS but have identified Zika virus-associated cases of GBS (**Table 2**).

Table 2. Countries and territories in the Americas with GBS in the context of Zika virus circulation.

Increase in GBS with Zika virus lab confirmation in at least one case of GBS	Zika virus lab confirmation in at least one case of GBS	Increase in GBS with no Zika virus lab confirmation in any of the cases
Brazil	Guadeloupe	Paraguay
Colombia	Haiti	
Dominican Republic	Panama	
El Salvador	Puerto Rico	
French Guiana		
Honduras		
Jamaica		
Martinique		
Suriname		
Venezuela		

Guadeloupe

Per the information published in the Cire Antilles Guyane bulletin, Zika virus infection has been confirmed in a total of eight patients with Guillain-Barré syndrome (GBS) in Guadeloupe and nine other cases are under investigation. Additionally, Zika virus infection was confirmed in five other patients who presented with other neurological disorders than GBS.