

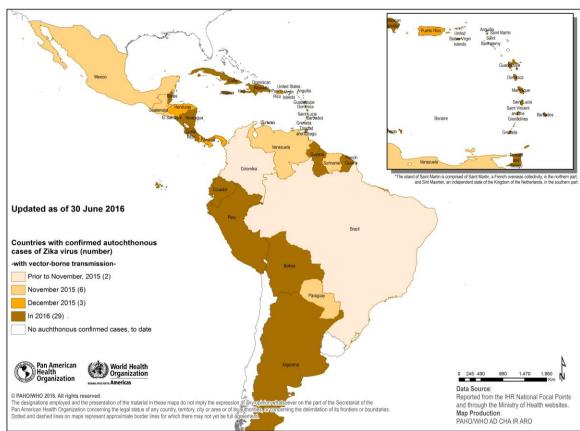
# Zika - Epidemiological Update

30 June 2016

# Zika virus - Incidence and trends

To date, 40 countries and territories have confirmed local, vectorial transmission of Zika virus disease in the Region of the Americas since 2015 (**Figure 1**). Since the last Pan American Health Organization/ World Health Organization (PAHO/WHO) <u>Zika Epidemiological Update on 23 June 2016</u>, no additional countries or territories confirmed vector-borne autochthonous transmission of Zika virus.

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



# Congenital syndrome associated with Zika virus infection<sup>1</sup>

Since the last PAHO/WHO Zika Epidemiological Update on 23 June 2016, French Guiana has reported a case of microcephaly associated with the Zika virus that was detected through an ultrasound performed on a pregnant woman who had been infected with Zika virus during her pregnancy. In addition, Brazil, Colombia, Martinique, and the United States of America updated the number of reported cases presented in **Table 1**.

# Brazil

According to the Brazil Ministry of Health, between 22 October 2015 and 25 June 2016 a total of 8,165 suspected cases of microcephaly and other congenital malformations of the central nervous system (CNS) have been reported in newborns. Of these, 1,638 cases were confirmed in accordance with Brazil's Surveillance and Response Protocol<sup>2</sup> (270 were confirmed by laboratory criteria). Out of the total cases reported, 3,466 cases were discarded as being due to noninfectious causes or not fitting the case definition, and 3,061 remain under investigation. Of the total reported cases, 4% (328 cases) correspond to stillbirths or neonatal deaths; 36 of them were confirmed by laboratory criteria.3

Regarding the geographical distribution, the total of confirmed cases occurred in 582 municipalities located in 27 Federal Units of Brazil.

#### Colombia

Between epidemiological week (EW) 1 and EW 24 of 2016, 11 cases of microcephaly associated with Zika virus were reported in Colombia. In addition, 51 other cases of microcephaly suspected to be associated with Zika virus were discarded and 102 cases remain under investigation.<sup>4</sup> See full report.

### **Martinique**

Up to EW 25 of 2016, there have been two cases of microcephaly and four other congenital malformations associated with Zika virus reported in Martinique. The anomalies were detected by ultrasound in pregnant women in whom Zika virus infection during pregnancy was confirmed.

#### United States of America

As of 23 June 2016, the United States Centers for Disease Control and Prevention (U.S. CDC) reported that there were a total of 7 liveborn infants with birth defects and 5 pregnancy losses with laboratory evidence of possible Zika virus infection.<sup>5,6</sup>

<sup>&</sup>lt;sup>1</sup> Case definition available at: <a href="http://bit.ly/1TpcVIS">http://bit.ly/1TpcVIS</a>

<sup>&</sup>lt;sup>2</sup> Surveillance and Response Protocol. <u>See Protocol</u>.

<sup>&</sup>lt;sup>3</sup> Information published on the Brazil, Ministry of Health website. <u>See more...</u>

<sup>&</sup>lt;sup>4</sup> Information published in the Weekly Epidemiologic Bulletin of the Colombia National Institute of Health. See more.

<sup>&</sup>lt;sup>5</sup> See full report.

<sup>&</sup>lt;sup>6</sup> The U.S. CDC has modified the way information is displayed. To protect the privacy of the women and children affected by Zika, U.S. CDC is not reporting individual state, tribal, territorial or jurisdictional level data.

The liveborn infants with birth defects include microcephaly, calcium deposits in the brain indicating possible brain damage, excess fluid in the brain cavities and surrounding the brain, absent or poorly formed brain structures, abnormal eye development, or other problems resulting from damage to the brain that affects nerves, muscles and bones, such as clubfoot or inflexible joints.

The pregnancy losses include miscarriage, stillbirths, and terminations with evidence of the birth defects mentioned above.

**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	1,638
Colombia <sup>7</sup>	11
El Salvador	1
French Guiana	1
Martinique <sup>8</sup>	6
Panama	5
Puerto Rico <sup>9</sup>	1
United States <sup>10</sup>	12

**Source:** Data provided by the national health authorities of the country / territory to PAHO/WHO or published on their Ministry or Department of Health website

# 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	Jamaica
Colombia	Haiti	Paraguay

<sup>&</sup>lt;sup>7</sup> See full report.

<sup>&</sup>lt;sup>8</sup> See full report.

<sup>&</sup>lt;sup>9</sup> See f<u>ull report</u>.

<sup>&</sup>lt;sup>10</sup> See full report...

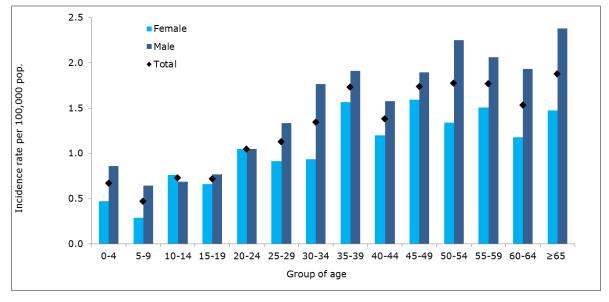
Dominican Republic	Panama	
El Salvador	Puerto Rico	
French Guiana		
Honduras		
Martinique		
Suriname		
Venezuela		

In some countries in the Americas region, the observed increase in cases of GBS, in the context of the Zika virus circulation, is maintained. This week the situation in Colombia, the Dominican Republic, and Venezuela is highlighted below.

### Colombia

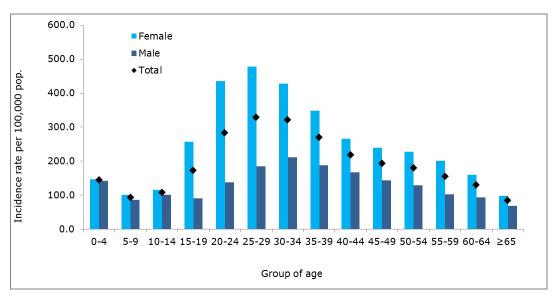
Since EW 40 of 2015 to EW 24 of 2016, a total of 579 neurological syndromes were reported (383 cases were classified as GBS) with a history of febrile illness compatible with Zika infection. Neurological syndrome incidence is higher in men than in women and increases with age (**Figure 2**). Conversely, incidence in cases of Zika is higher in women and decreases with age (**Figure 3**).

**Figure 2.** Neurological syndrome related to Zika virus incidence rate by age and sex group. Colombia. EW 40 of 2015 to EW 24 of 2016.



Source: Data provided by the Colombia Ministry of Health and Social Protection to PAHO/WHO

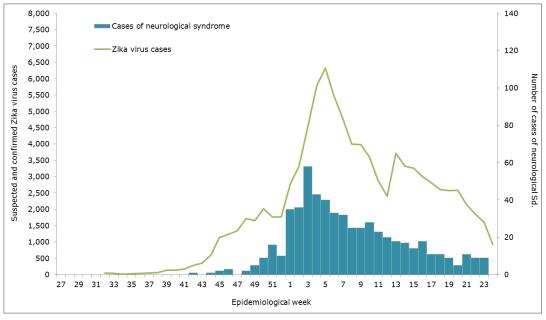
**Figure 3.** Zika incidence rate by age and sex group. Colombia. EW 32 of 2015 to EW 24 of 2016.



Source: Data provided by the Colombia Ministry of Health and Social Protection to PAHO/WHO

Additionally, **Figure 4** presents the pattern of Zika virus disease transmission along with Zika associated neurological syndrome; the figure shows a correlation between both.

**Figure 4.** Suspected and confirmed Zika virus disease cases and neurological syndrome cases. Colombia. EW 27 of 2015 to EW 24 of 2016.

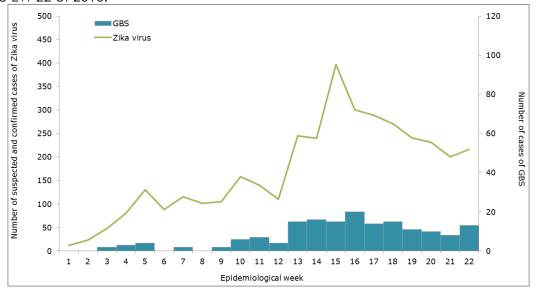


Source: Data provided by the Colombia Ministry of Health and Social Protection to PAHO/WHO

## **Dominican Republic**

Between EW 1 and 22 of 2016, a total of 167 GBS cases, including 17 deaths (case fatality rate 10.2%) were reported in the Dominican Republic (**Figure 5**). The age range of the deaths is 33 to 89 years of age, with a median of 60 years. Most of these cases (53%) were women.

**Figure 5**. Suspected and confirmed Zika virus disease cases and GBS. Dominican Republic. EW 1 to EW 22 of 2016.

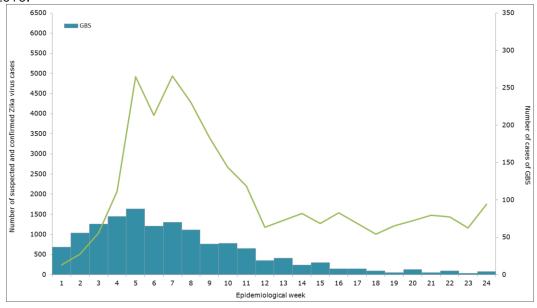


Source: Data published by the Dominican Republic Ministry of Health and reproduced by PAHO/WHO

### Venezuela

Between EW 1 and 24 of 2016, a total of 755 GBS cases were reported in Venezuela. In the first 15 weeks of 2016 the weekly average of GBS cases reported was 47; however, since EW 16 of 2016, the weekly average decreased to 13 cases. **Figure 6**, shows that both, Zika and GBS cases peak in the same week.

**Figure 6.** Suspected and confirmed Zika virus disease cases and GBS. Venezuela. EW 1 to EW 24 of 2016.



Source: Data published by the Venezuela Ministry of Health and reproduced by PAHO/WHO