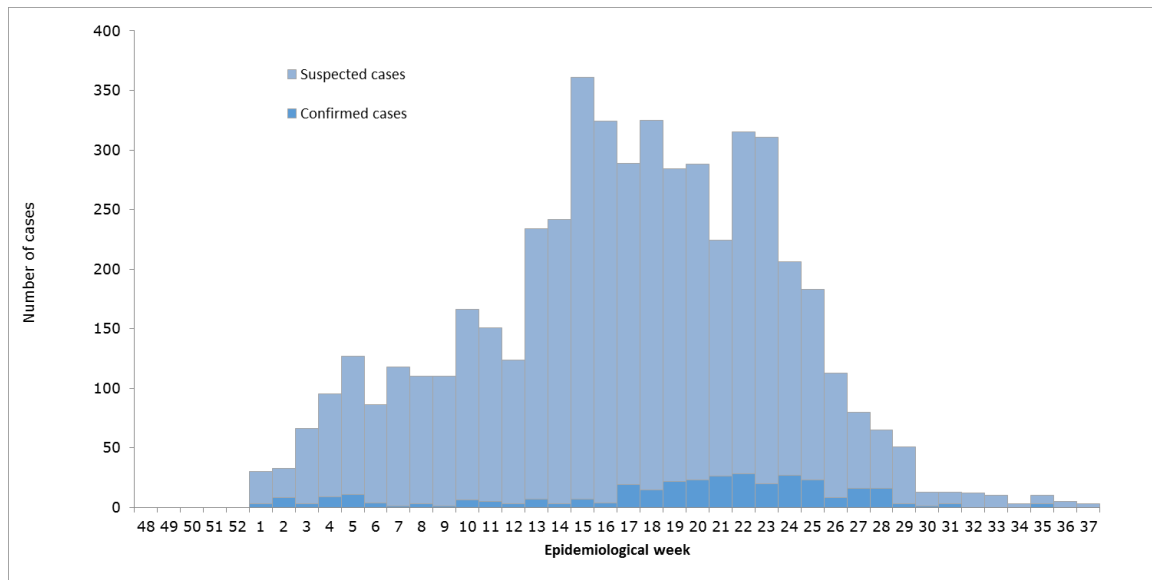


# Zika-Epidemiological Report Dominican Republic

3 November 2016

**Figure 1.** Suspected and confirmed Zika virus disease cases. Dominican Republic. EW 48 of 2015 to EW 37 of 2016.



Source: Data provided by the Dominican Republic Ministry of Public Health to PAHO/WHO

## FIRST AUTOCHTHONOUS VECTOR-BORNE CASES

In epidemiological week (EW) 3 of 2016, the detection of the first autochthonous cases of vector-borne transmission of Zika virus was reported by the Dominican Republic International Health Regulations (IHR) National Focal Point (NFP). The first confirmed cases were from the National District and the municipalities of Santo Domingo Norte, Jimani-Independencia, and Santa Cruz-Barahona.

## GEOGRAPHIC DISTRIBUTION

As of EW 41 of 2016, autochthonous transmission of Zika virus has been confirmed in 31 of the 32 provinces of the Dominican Republic.<sup>1</sup> Although no confirmed case has been detected in the province of Elías Piña, the latter has reported suspected cases.

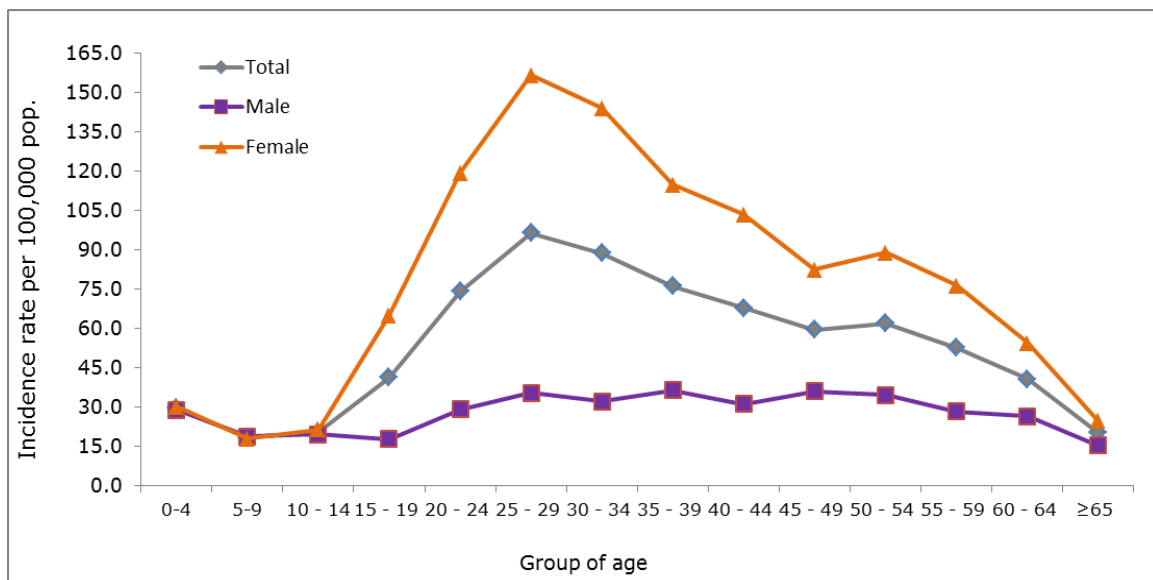
<sup>1</sup> Dominican Republic Ministry of Public Health. Weekly epidemiological bulletin. EW 41 of 2016. Available at: [http://digepisalud.gov.do/documentos/?drawer=Boletines%20epidemiol%C3%B3gicos\\*Boletines%20semanales\\*2016](http://digepisalud.gov.do/documentos/?drawer=Boletines%20epidemiol%C3%B3gicos*Boletines%20semanales*2016)

## TREND

The peak of the Zika outbreak occurred between EW 15 and EW 23 of 2016, when an average of 302 cases were being reported each week (**Figure 1**).<sup>2</sup> Since then, Zika cases have been decreasing steadily reaching an average of six cases per week in recent weeks (EW 33 to EW 37).

Overall, there appears to be a preponderance of females among suspected Zika cases in the Dominican Republic (**Figure 2**).<sup>2</sup> The highest incidence rate is observed in females aged 25-29 years (157 cases per 100,000 population), followed by females aged 30-34 years (144 per 100,000).

**Figure 2:** Incidence rate of suspected Zika cases by sex and age group. Dominican Republic. EW 1 to 38 of 2016.



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

## CIRCULATION OF OTHER ARBOVIRUSES

Between EW 1 and EW 41 of 2016, a total of 6,214 probable cases of dengue (78 cases per 100,000 population), including 32 deaths (case fatality rate of 0.5%), have been reported.<sup>1</sup> This corresponds to a 35% decrease in incidence, when compared to the same period of 2015.

In regard to chikungunya, in 2016, a total of 112 suspected cases (one case per 100,000) were reported up to EW 30.<sup>3</sup> In 2015, 67 suspected cases (one case per 100,000) were detected up to EW 28. In 2014, 524,297 suspected and 84 laboratory-confirmed cases (cumulative incidence rate of 5,040 cases per 100,000) were registered up to EW 45.

<sup>2</sup> Reported to PAHO/WHO by the Dominican Republic IHR NFP on 6 October 2016.

<sup>3</sup> PAHO/WHO. Chikungunya: Statistic Data. Number of reported cases of Chikungunya Fever in the Americas. Available at: [http://www.paho.org/hq/index.php?option=com\\_topics&view=readall&cid=5927&Itemid=40931&lang=en](http://www.paho.org/hq/index.php?option=com_topics&view=readall&cid=5927&Itemid=40931&lang=en)

## ZIKA VIRUS DISEASE IN PREGNANT WOMEN

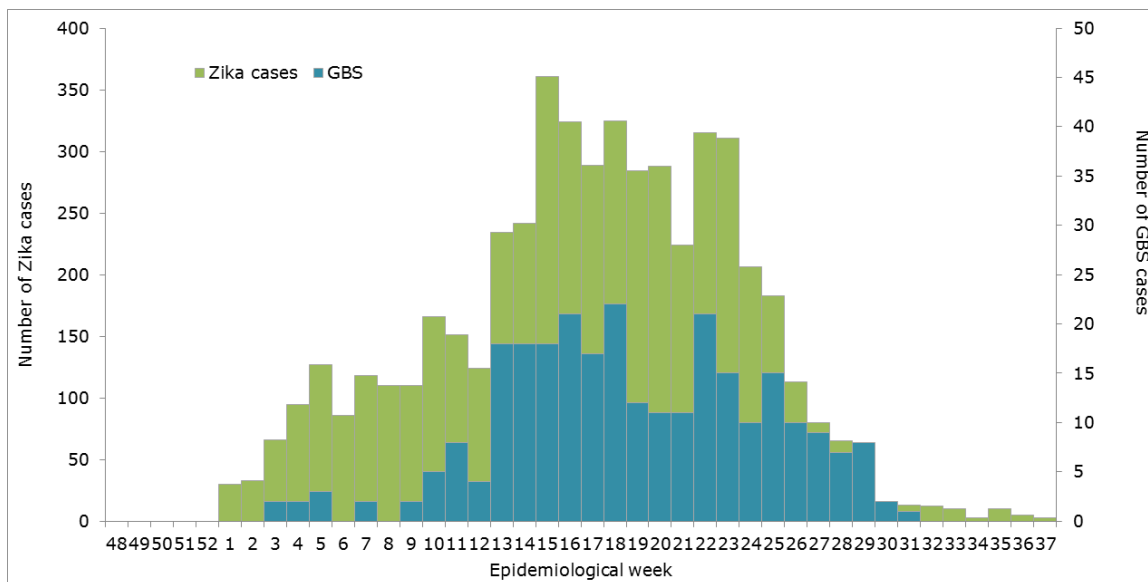
Since the beginning of the epidemic up to EW 41 of 2016, a total of 948 suspected cases of Zika were reported in pregnant women who had Zika symptoms in the first 24 weeks of gestation.<sup>1</sup> Out of the total, 269 pregnant women were laboratory confirmed for Zika virus infection.

## ZIKA COMPLICATIONS

### ZIKA-VIRUS-ASSOCIATED GUILLAIN-BARRE SYNDROME (GBS)

Since the confirmation of the first cases of Zika in the Dominican Republic in EW 3 of 2016, an increasing trend of Guillain-Barré syndrome (GBS) cases, similar to the trend of Zika cases has been observed (**Figure 3**).<sup>2</sup> The GBS cases, along with the Zika cases have steadily declined since EW 23 of 2016. As of EW 41 of 2016, a total of 274 GBS cases, including 33 confirmed cases associated with Zika virus infection and 17 deaths, have been registered.<sup>1</sup>

**Figure 3.** Zika and GBS cases by EW. Dominican Republic. EW 52 of 2015 to EW 37 of 2016.



Source: Data provided by the Dominican Republic Ministry of Public Health to PAHO/WHO

## CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

As of EW 41 of 2016, ten cases of microcephaly in newborns have been laboratory confirmed for Zika virus infection.<sup>1</sup> The cases are from the National District in Santo Domingo and Independence Province, where Zika circulation was first detected.

### DEATHS AMONG ZIKA CASES

As of EW 41 of 2016, the Dominican Republic public health authorities have reported 17 deaths associated with GBS (mentioned above).

## NATIONAL ZIKA SURVEILLANCE GUIDELINES

Surveillance guidelines for clinicians are being implemented. More information is available at:

[http://digepisalud.gob.do/docs/Vigilancia%20Epidemiologica/Alertas%20epidemiologica/Zika/Nacional/Procedimiento\\_Vigilancia\\_ZIKV\\_2016\\_Ene\\_31.pdf](http://digepisalud.gob.do/docs/Vigilancia%20Epidemiologica/Alertas%20epidemiologica/Zika/Nacional/Procedimiento_Vigilancia_ZIKV_2016_Ene_31.pdf)

In February 2016, "Protocolo De Atención Síndrome De Guillain Barré 2016" was published to standardize the required set of guidelines for diagnosis and management of GBS. More information is available at:

<http://digepisalud.gob.do/docs/Vigilancia%20Epidemiologica/Gu%C3%ADa%20de%20Atenci%C3%B3n/Protocolo%20De%20Atenci%C3%B3n%20Síndrome%20De%20Guillain%20Barr%C3%A9%202016.pdf>

On 14 April 2016, a resolution was passed making it mandatory to report GBS, Microcephaly and any other neurological complications associated with Zika virus disease in the Dominican Republic. More information is available at:

<http://digepisalud.gob.do/docs/Vigilancia%20Epidemiologica/Reglamentos%20y%20Normas/2016%20-%20Resoluci%C3%B3n%20No.%20000013%20%20Notificaci%C3%B3n%20De%20Los%20Casos%20De%20Guillain%20Barr%C3%A9.pdf>

## LABORATORY CAPACITY

Laboratory confirmation is performed at the *Laboratorio Nacional "Dr. Defilló"* from the Dominican Republic Ministry of Public Health by molecular detection (real-time RT-PCR). In addition, they recently established the PCR multiplex system from the U.S. CDC (Trioplex).

## INFORMATION-SHARING

The first cases of Zika virus disease locally acquired were reported by the Dominican Republic IHR NFP. At the time of this report, the latest information on Zika virus provided by the Dominican Republic IHR NFP to PAHO/WHO was from EW 38 and the latest epidemiological report available on the Dominican Republic Ministry of Public Health website was from EW 41 of 2016.