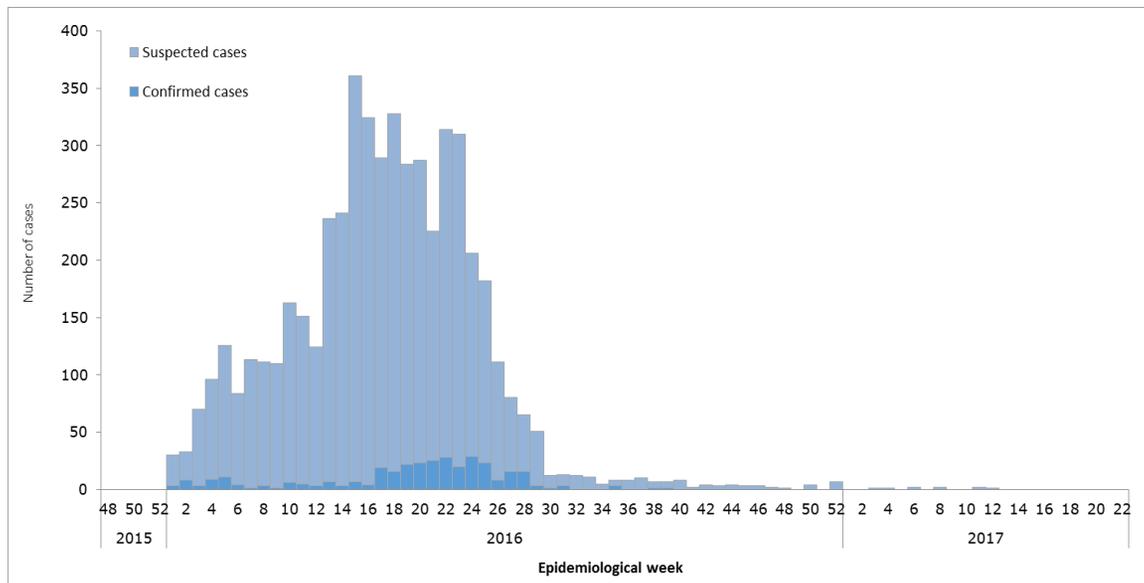


Zika-Epidemiological Report Dominican Republic

29 June 2017

Figure 1. Suspected and confirmed Zika virus disease cases. Dominican Republic. EW 48 of 2015 to EW 22 of 2017.



Source: Data provided by the Dominican Republic Ministry of Public Health to PAHO/WHO¹

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.

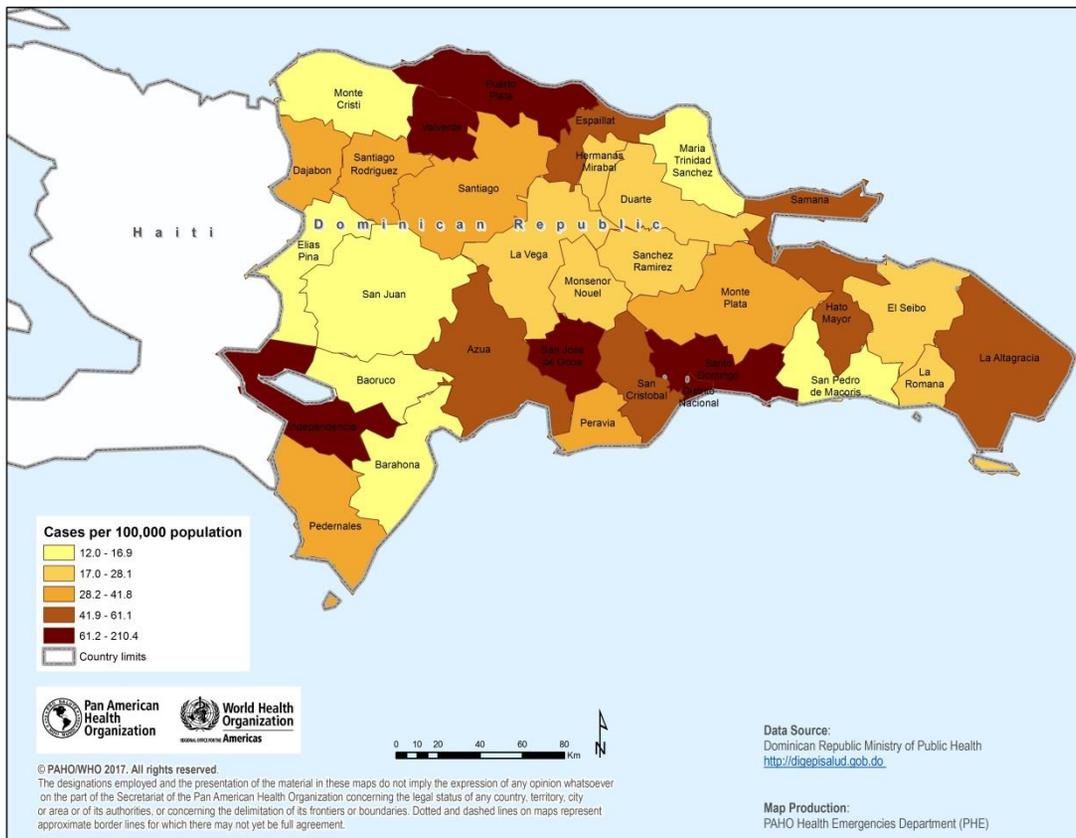
GEOGRAPHIC DISTRIBUTION

As of EW 12 of 2017, autochthonous transmission of Zika virus was confirmed in 31 of the 32 provinces of the Dominican Republic.² Although no confirmed case was detected in the province of Elías Piña, the latter has reported suspected cases. The provinces that reported the highest Zika virus incidence rates are San Jose de Ocoa (210 cases per 100,000 population), Independencia (139 cases per 100,000), Distrito Nacional (100 cases per 100,000), Santo Domingo (78 cases per 100,000), and Valverde (73 cases per 100,000) (**Figure 2**).

¹ Reported to PAHO/WHO by the Dominican Republic IHR NFP on 12 May 2017.

² Dominican Republic Ministry of Public Health. Weekly epidemiological bulletin. EW 12 of 2017. Available at: <http://digepisalud.gob.do/docs/Boletines%20epidemiol%C3%B3gicos/Boletines%20semanales/2017/Bolet%C3%ADn%20Semanal%2012-2017.pdf>

Figure 2. Confirmed and suspected Zika cases per 100,000 population by province. Dominican Republic. EW 1 of 2016 to EW 12 of 2017.



Source: Data published by the Dominican Republic Ministry of Public Health and reproduced by PAHO/WHO²

TREND

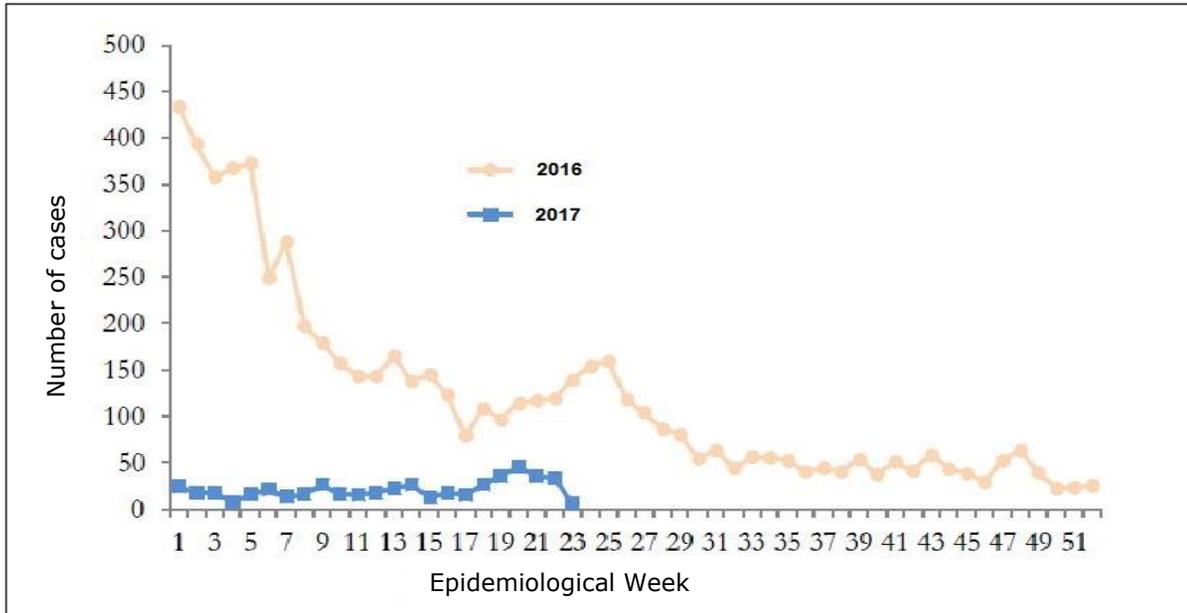
The peak of the Zika outbreak occurred between EW 15 and EW 23 of 2016, when an average of 302 cases were being reported each week (**Figure 1**).¹ Since then, progressively lower numbers of Zika cases were reported in the Dominican Republic, with an average of one case per week being registered in the last 8 weeks (EW 7 to EW 14 of 2017).

CIRCULATION OF OTHER ARBOVIRUSES

As of EW 23 of 2017, a total of 502 probable and confirmed cases of dengue (11 cases per 100,000 population), were reported (**Figure 3**).³ During the same period in 2016, a total of 4,831 cases were registered.

³ Dominican Republic Ministry of Public Health. Weekly epidemiological bulletin. EW 23 of 2017. Available at: <http://digepisalud.gob.do/docs/Boletines%20epidemiol%C3%B3gicos/Boletines%20semanales/2017/Bolet%C3%ADn%20Semanal%2023-2017.pdf>

Figure 3. Reported dengue cases. Dominican Republic. EW 1 to EW 23 of 2017.



Source: Data published by the Dominican Republic Ministry of Public Health and reproduced by PAHO/WHO³

In regard to chikungunya, no information on the number of chikungunya cases reported in 2017 is available.⁴ In 2016, a total of 112 suspected cases (one case per 100,000) were registered up to EW 30. 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.

ZIKA VIRUS DISEASE IN PREGNANT WOMEN

As of EW 14 of 2017, a total of 961 pregnant women with Zika virus symptoms in the first 24 weeks of gestation have been reported by the Dominican Republic public health authorities.¹ Of the total, 271 pregnant women have been laboratory confirmed for Zika virus infection.

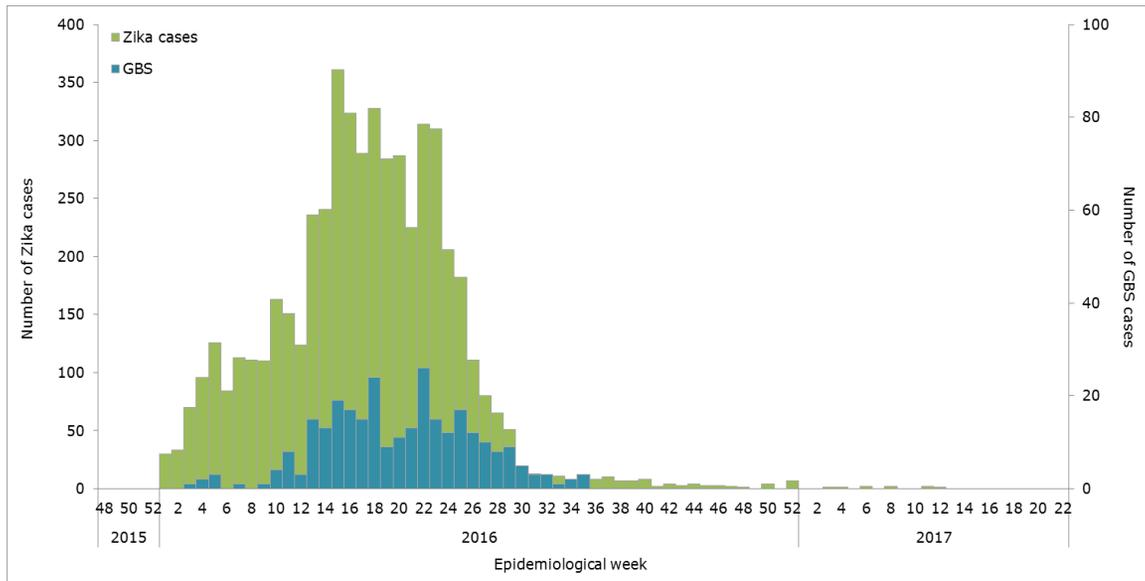
ZIKA COMPLICATIONS

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 was observed (**Figure 4**). The GBS cases, along with the Zika cases steadily declined since EW 23 of 2016. As of EW 14 of 2017, a total of 285 GBS cases, including 32 confirmed cases associated with Zika virus infection were reported by the Dominican Republic public health authorities.¹

⁴ 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

Figure 4. Zika and GBS cases by EW. Dominican Republic. EW 48 of 2015 to EW 22 of 2017.



Source: Data provided by the Dominican Republic Ministry of Public Health to PAHO/WHO¹

CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

As of EW 17 of 2017, 93 cases of microcephaly in newborns with laboratory-confirmed for Zika virus infection have been reported by the Dominican Republic public health authorities.⁵

DEATHS AMONG ZIKA CASES

As of EW 12 of 2017, 17 deaths associated with GBS (mentioned above) were reported by the Dominican Republic public health authorities.^{2, 6}

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

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>

⁵ Dominican Republic Ministry of Public Health. Weekly epidemiological bulletin. EW 17 of 2017. Available at: <http://digepisalud.gob.do/docs/Boletines%20epidemiol%C3%B3gicos/Boletines%20semanales/2017/Bolet%C3%ADn%20Semanal%2017-2017.pdf>

⁶ Dominican Republic Ministry of Public Health. Weekly epidemiological bulletin. EW 3 of 2017. Available at: <http://digepisalud.gob.do/docs/Boletines%20epidemiol%C3%B3gicos/Boletines%20semanales/2017/Bolet%C3%ADn%20Semanal%2003-2017.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

Information on Zika is periodically provided by the Dominican Republic IHR NFP to PAHO/WHO and included in a periodic epidemiological bulletin published on the Dominican Republic Ministry of Public Health website. 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 14 of 2017 and the latest epidemiological bulletin with available information on the Zika situation was from EW 17 of 2017.