Pan American Health Organization

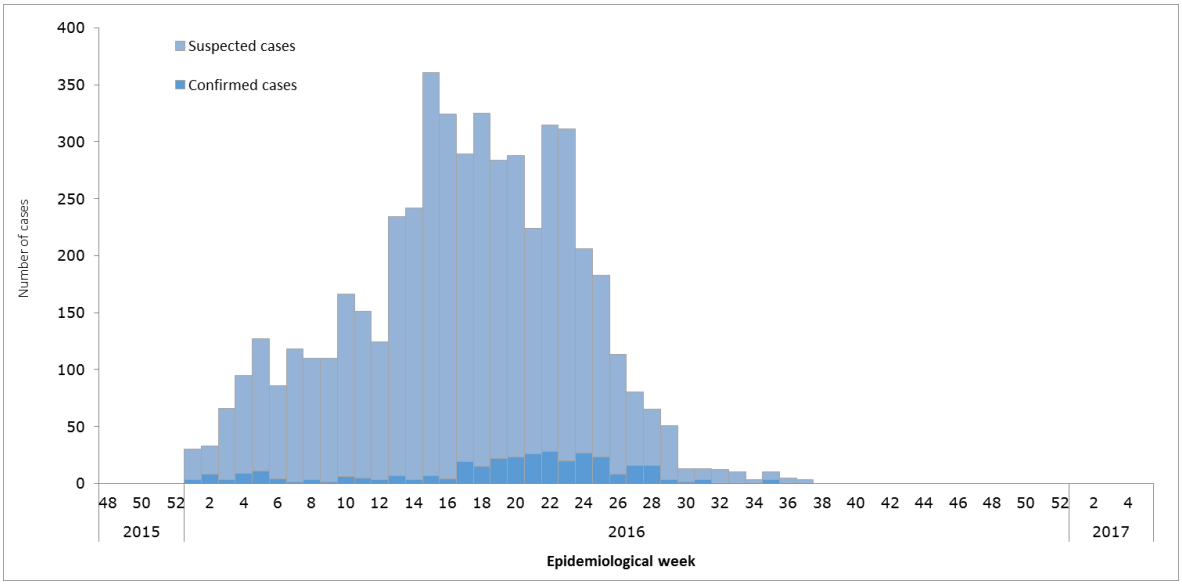
World Health Organization
REGIONAL OFFICE FOR THE Americas

Zika-Epidemiological Report

Dominican Republic

2 March 2017

Figure 1. Suspected and confirmed Zika virus disease cases. Dominican Republic. EW 48 of 2015 to EW 5 of 2017.



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 2 of 2017, autochthonous transmission of Zika virus has been confirmed in 31 of the 32 provinces of the Dominican Republic.[1] Although no confirmed case has been detected in the province of Elías Piña, the latter has reported suspected cases. To date, the provinces of San Jose de Ocoa (210 cases per 100,000 population), Independencia (139 cases per 100,000), Districto Nacional (100 cases per 100,000), Valverde (73 cases per 100,000), and Puerto Plata (71 cases per 100,000) reported the highest incidence rates of Zika virus cases (**Figure 2**).

[1] Dominican Republic Ministry of Public Health. Weekly epidemiological bulletin. EW 2 of 2017. Available at: http://digepisalud.gob.do/documentos/?drawer=Boletines%20epidemiol%C3%B3gicos*Boletines%20semanales*2017

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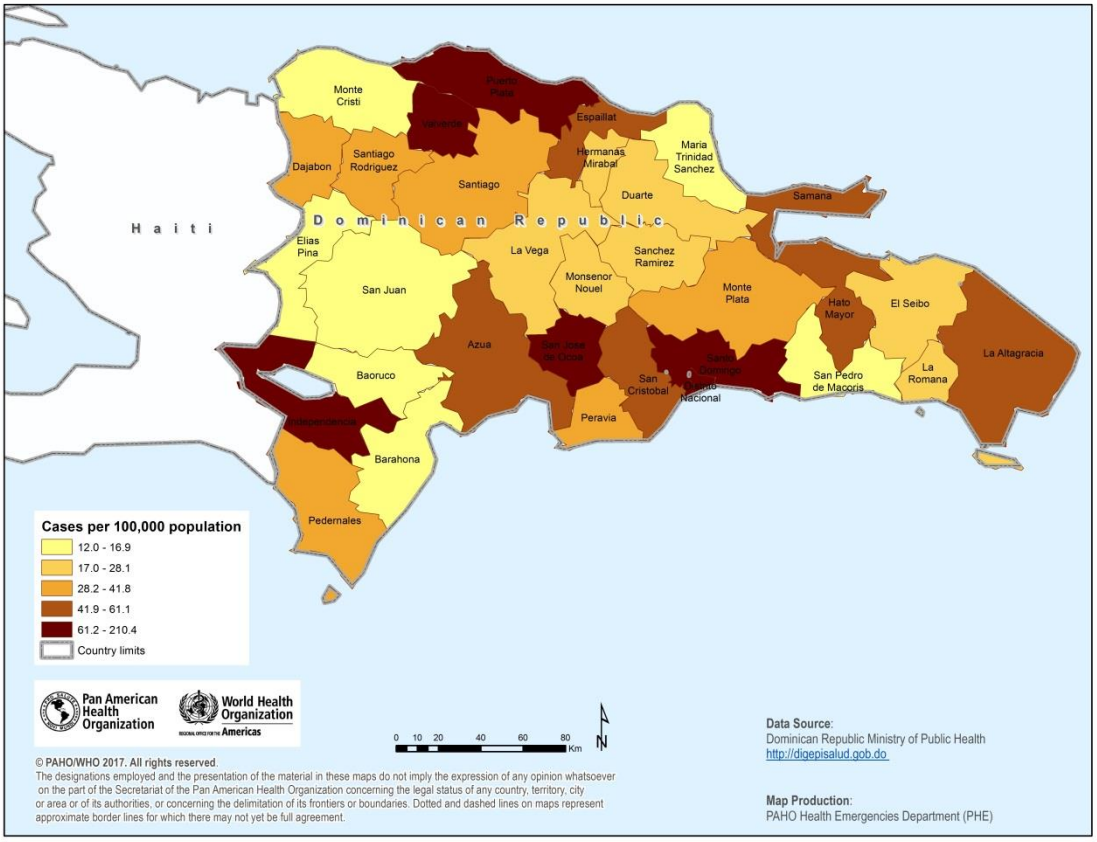
Figure 2. Confirmed and suspected Zika cases per 100,000 population by province. Dominican Republic. EW 1 of 2016 to EW 2 of 2017.



Source: Data published by the Dominican Republic Ministry of Public Health and reproduced by PAHO/WHO[1]

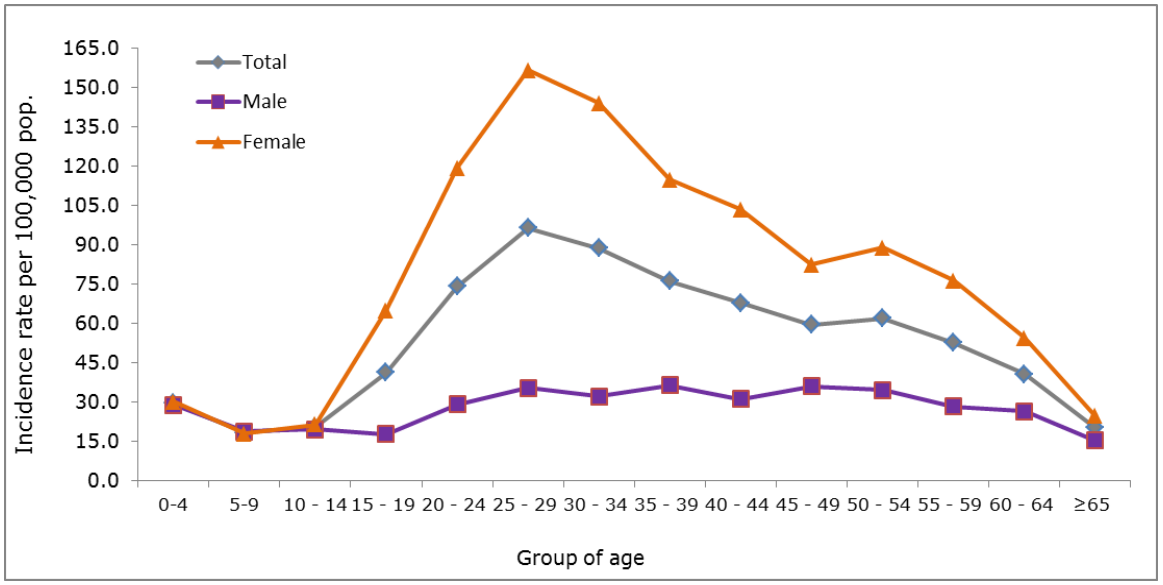
TREND

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**).[2] Since then, Zika cases decreased steadily up to EW 37 of 2016.[3] Information on Zika trend is only available up to EW 37 of 2016.

As of EW 38 of 2016, there had been a preponderance of females among suspected Zika cases in the Dominican Republic (**Figure 3**).[2] The highest incidence rate was observed in females aged 25-29 years (157 cases per 100,000 population), followed by females aged 30-34 years (144 per 100,000).

[2] Reported to PAHO/WHO by the Dominican Republic IHR NFP on 6 October 2016.
[3] The epicurve presented in this reported in produced based on the latest information provided by the Dominican Republic IHR NFP.

Figure 3: 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

As of EW 2 of 2017, a total of 50 probable cases of dengue (13 cases per 100,000 population), have been reported.[1] This corresponds to a 95% decrease in incidence, when compared to the same period of 2016. Between EW 1 and 52 of 2016, a total of 6,645 cases of dengue (66 cases per 100,000) were reported.[4]

In regard to chikungunya, in 2016, a total of 112 suspected cases (one case per 100,000) were reported up to EW 30.[5] 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 5 of 2017, a total of 952 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, 281 pregnant women have been laboratory confirmed for Zika virus infection.

ZIKA COMPLICATIONS

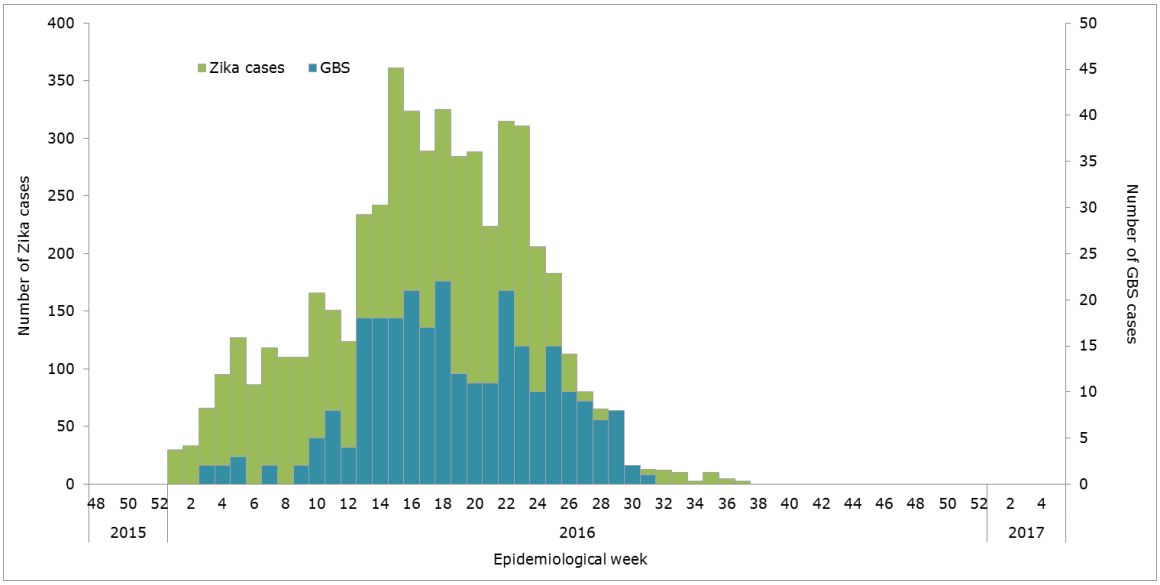
ZIKA-VIRUS-ASSOCIATED GUILLAIN-BARRE SYNDROME (GBS)

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**).[2] The GBS cases, along with the Zika cases steadily declined since EW 23 of

[4] Dominican Republic Ministry of Public Health. Weekly epidemiological bulletin. EW 52 of 2016. Available at: http://digepisalud.gob.do/documentos/?drawer=Boletines%20epidemiol%C3%B3gicos*Boletines%20semanales*2016
[5] 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

2016. As of EW 5 of 2017, a total of 319 GBS cases, including 34 confirmed cases associated with Zika virus infection and 17 deaths, have been reported by the Dominican Republic public health authorities.[1]

Figure 4. Zika and GBS cases by EW. Dominican Republic. EW 48 of 2015 to EW 5 of 2017.



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

CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

As of EW 5 of 2017, 59 cases of microcephaly in newborns with laboratory-confirmed for Zika virus infection have been reported by the Dominican Republic public health authorities.[1]

DEATHS AMONG ZIKA CASES

As of EW 5 of 2017, 17 deaths associated with GBS (mentioned above) have been reported by the Dominican Republic public health authorities.

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 Sindrome 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%20Sindrome%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 2 of 2017.