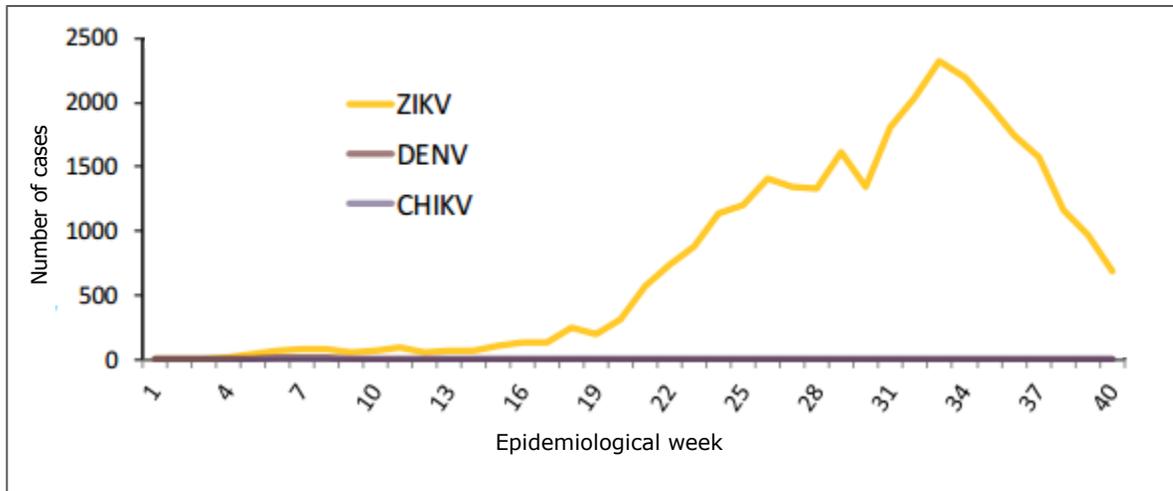


Zika-Epidemiological Report

Puerto Rico

2 November 2016

Figure 1. Confirmed cases of chikungunya, dengue and Zika by epidemiological week. Puerto Rico. EW 1 to EW 40 of 2016



Source: Data published by the Puerto Rico Department of Health and reproduced by PAHO/WHO¹

FIRST AUTOCHTHONOUS VECTOR-BORNE CASES

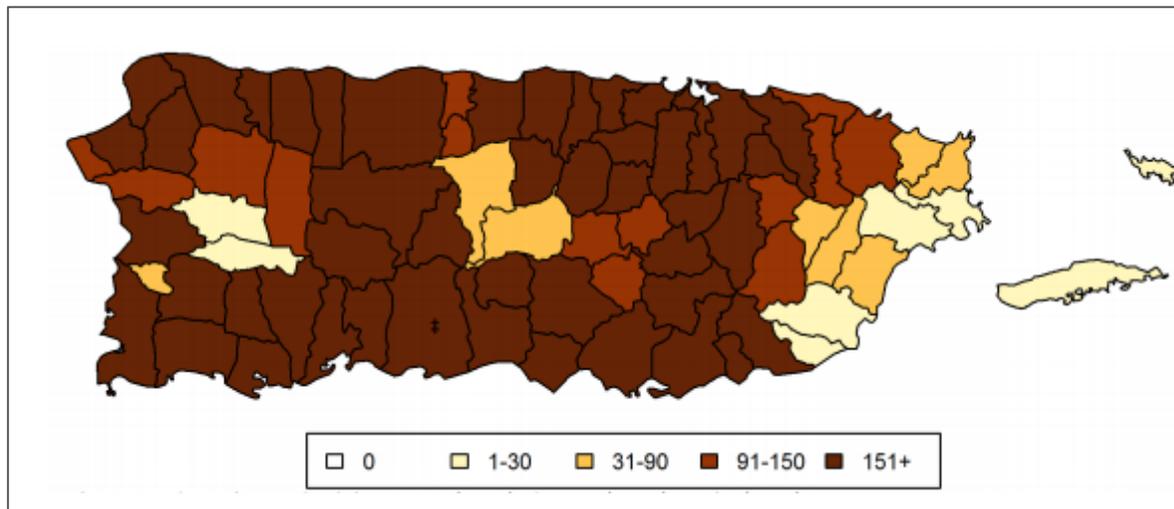
In epidemiological week (EW) 52 of 2015, the United States International Health Regulations (IHR) National Focal Point (NFP) notified PAHO/WHO of the detection of the first laboratory-confirmed case of Zika virus infection in the Commonwealth of Puerto Rico, an unincorporated territory of the United States.

GEOGRAPHIC DISTRIBUTION

The first Zika cases in Puerto Rico were detected in Humacao, on the eastern coast of the island. Since then, cases have been reported in all municipalities of Puerto Rico, for a total of 29,975 confirmed cases (**Figure 2**).

¹ Puerto Rico Department of Health. Arboviruses Weekly Report. EW 40 of 2016. Available at: <http://www.salud.gov.pr/Estadisticas-Registros-y-Publicaciones/Informes%20Arbovirales/Reporte%20ArboV%20semana%2040-2016.pdf>

Figure 2. Confirmed Zika cases by municipality. Puerto Rico. 2015 to 2016 (up to EW 40).



Source: Map published by the Puerto Rico Department of Health¹

TREND

Weekly numbers of Zika cases in Puerto Rico increased steadily from EW 3 up to EW 33 of 2016, after which a decreasing trend has been observed (**Figure 1**).

CIRCULATION OF OTHER ARBOVIRUSES

During 2015 and 2016, significantly fewer cases of dengue and chikungunya have been reported in Puerto Rico compared with Zika (**Figure 1**).

ZIKA VIRUS DISEASE IN PREGNANT WOMEN

As of EW 40 of 2016, a total of 2,313 pregnant women have been laboratory-confirmed for Zika virus infection in Puerto Rico.¹ Of these, 1,475 (64%) were symptomatic and 838 (36%) were asymptomatic. The percentage of persons with confirmed or presumptive Zika virus infection among symptomatic pregnant females increased from 8% in February 2016 to 41% in June 2016.²

ZIKA COMPLICATIONS

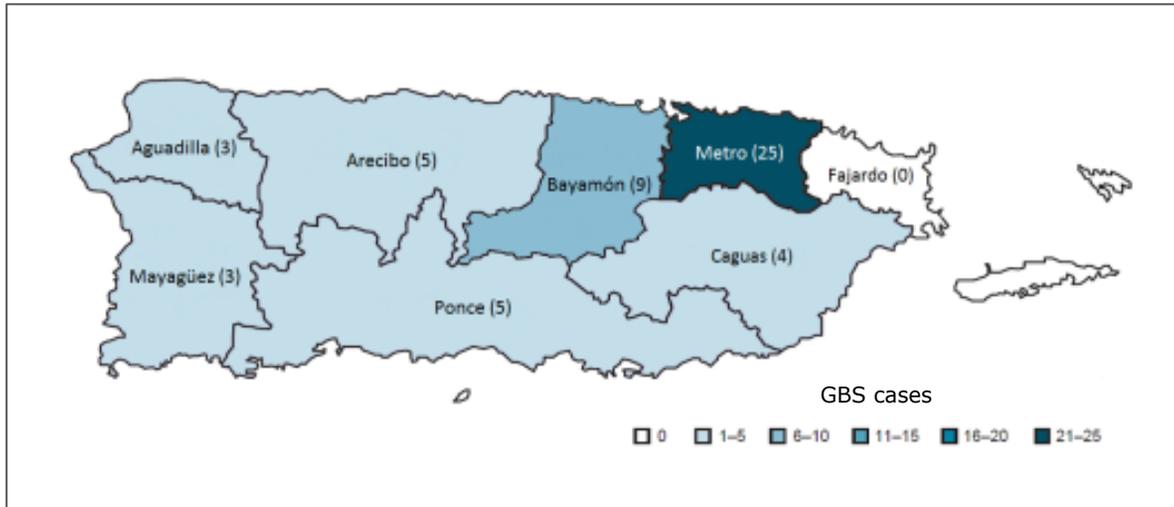
ZIKA-VIRUS-ASSOCIATED GUILLAIN-BARRÉ SYNDROME (GBS)

Between EW 1 and EW 40 of 2016, 142 cases of suspected Guillain-Barré syndrome (GBS) and other neurological syndromes were reported. Of the total, 67 cases had evidence of Zika or other flavivirus infection, of which 54 were cases of GBS and 13 were cases of other neurological syndromes. The median age of the 54 GBS cases is 54 years (age range of 21 to 88 years). The

² Adams L, Bello-Pagan M, Lozier M, et al. Update: Ongoing Zika Virus Transmission — Puerto Rico, November 1, 2015–July 7, 2016. MMWR Morb Mortal Wkly Rep. ePub: 29 July 2016. DOI: <http://dx.doi.org/10.15585/mmwr.mm6530e1>.

majority of cases (n=27, 54%) are female.³ Two deaths of GBS cases who had evidence of Zika or other flavivirus infection have also been reported.³

Figure 3. Cases of GBS with evidence of Zika virus or flavivirus infection by public health region. Puerto Rico. EW 1 to EW 40 of 2016.



Source: Map published by the Puerto Rico Department of Health³

CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

As of EW 27 of 2016, 65 infants were born to women with evidence of Zika virus infection in pregnancy, and two pregnancy losses were identified. Zika virus was identified in neural tissue by immunohistochemistry in one case of pregnancy loss.² As of EW 40 of 2016, two cases of congenital syndrome associated with Zika virus infection among live births in Puerto Rico have been identified.¹

DEATHS AMONG ZIKA CASES

As of EW 40, four deaths of confirmed Zika virus cases (not associated with GBS) have been reported from Puerto Rico.¹ The first patient died of complications related to severe thrombocytopenia.²

NATIONAL ZIKA SURVEILLANCE GUIDELINES

The Surveillance guidelines for clinicians issued by the Puerto Rico Department of Health were updated as of EW 13 of 2016.⁴

Newborn screening guidelines for obstetric health care workers were issued in EW 3 of 2016.⁵

³ Puerto Rico Department of Health. GBS Weekly Report. EW 40 of 2016. Available at: http://www.salud.gov.pr/Estadisticas-Registros-y-Publicaciones/Informe%20Sndrome%20GillainBarr/Informe%20de%20Casos%20del%20Sindrome%20de%20Guillain-Barre_21Oct2016.pdf

⁴ Puerto Rico Department of Health. Arbovirus Case Investigation Form. Available at: <http://www.salud.gov.pr/Sobre-tu-Salud/Documents/NEW%20Arbovirus%20Case%20Investigation%20Form%20-%20March%2029%202016.pdf>

⁵ Puerto Rico Department of Health. Interim Guidelines ZIKA and Pregnant Women. Available at: <http://www.salud.gov.pr/Sobre-tu-Salud/Documents/Interim%20Guidelines%20ZIKA%20and%20Pregnant%20Women.pdf>

LABORATORY CAPACITY

The Public Health Laboratory from the Puerto Rico Department of Health is responsible for laboratory surveillance. Currently, they use the PCR multiplex system, Trioplex, from the United States Centers for Disease Control and Prevention (CDC). The U.S. CDC, Dengue Branch also provides support for laboratory confirmation by molecular detection (real-time RT-PCR) and serology (ELISA IgM detection and Plaque Reduction Neutralization Test - PRNT).

INFORMATION-SHARING

The first autochthonous confirmed Zika case was reported by the U.S. International Health Regulations (IHR) National Focal Point (NFP) to PAHO/WHO on EW 2 of 2016. At the time of this report, the latest Puerto Rico Department of Health epidemiological bulletin was from EW 40 of 2016.