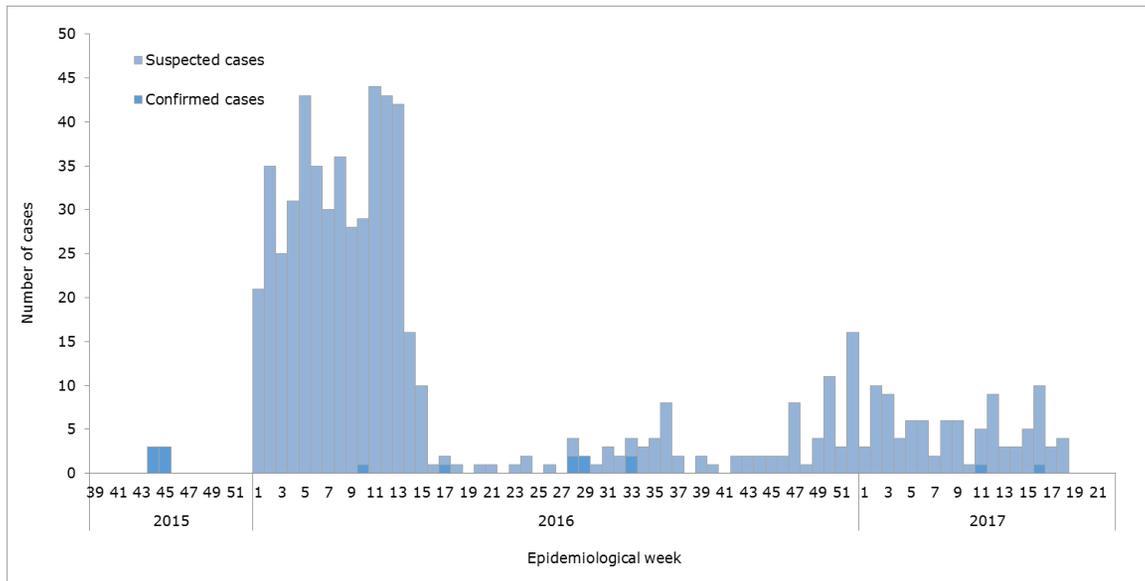


Zika-Epidemiological Report

Paraguay

28 June 2017

Figure 1. Suspected and confirmed Zika cases. Paraguay. EW 39 of 2015 to EW 22 of 2017.



Source: Data provided by the Paraguay Ministry of Public Health and Social Welfare to PAHO/WHO¹

FIRST AUTOCHTHONOUS VECTOR-BORNE CASES

In epidemiological week (EW) 47 of 2015, the Paraguay International Health Regulations (IHR) National Focal Point (NFP) reported to PAHO/WHO the first autochthonous vector-borne transmission of Zika virus identified in Paraguay.

GEOGRAPHIC DISTRIBUTION

In 2015, confirmed cases were reported in Pedro Juan Caballero, Amambay Department, which borders Ponta Porá, Brazil.² In 2016, confirmed cases were reported in the Metropolitan Area of Asunción and the departments of Alto Paraná, Amambay, and Paraguari.³ In 2017, confirmed cases were reported in the departments of Capital and Central.⁴

¹ Reported to PAHO/WHO from Paraguay International Health Regulation (IHR) National Focal Point (NFP) on 3 February 2017

² Paraguay General Directorate of Health Surveillance. Epidemiological Bulletin EW 1 to EW 36 of 2016. Available at: http://vigisalud.gov.py/boletines/30_09_2016_11_42_36_Boletin-Epidemiologico_SE-36.pdf

³ Paraguay General Directorate of Health Surveillance. Epidemiological Bulletin EW 1 to EW 52 of 2016. Available at: http://vigisalud.gov.py/boletines/03_02_2017_08_46_20_Boletin-Epidemiologico_SE-52.pdf

⁴ Paraguay General Directorate of Health Surveillance. Epidemiological Bulletin EW 1 to EW 19 of 2017. Available at: http://vigisalud.gov.py/boletines/02_06_2017_09_53_09_Boletin-Epidemiologico_SE-19.pdf

TREND

Since the introduction of Zika virus in Paraguay, a large number of cases were reported between EW 1 and EW 13 of 2016 (**Figure 1**). After a period of decline, a low number of cases were reported between EW 15 and EW 39 of 2016. However, an increase in cases has been observed between EW 47 of 2016 and EW 18 of 2017, which coincides with the period of higher incidence of vector-borne diseases, with an average of five Zika cases reported per week in the last 10 weeks (EW 9 of 2016 to EW 18 of 2017).

CIRCULATION OF OTHER ARBOVIRUSES

As of EW 17 of 2017, a total of 7,514 probable dengue cases (106 cases per 100,000 population), including 205 confirmed cases, have been reported in Paraguay.⁵ In 2016, the Paraguay health authorities reported a cumulative total of 173,709 probable cases (2,470 cases per 100,000), including 2,556 confirmed cases.

As of EW 19 of 2017, a total of 739 suspected and four laboratory-confirmed cases of chikungunya (11 cases per 100,000) have been reported by the Paraguay health authorities.⁶ In 2016, a total of 881 suspected and 38 laboratory-confirmed cases of chikungunya (14 cases per 100,000) have been reported in Paraguay.

ZIKA VIRUS DISEASE IN PREGNANT WOMEN

As of EW 18 of 2017, the Paraguay IHR NFP reported 33 pregnant women suspected for Zika virus infection and two pregnant women laboratory-confirmed for Zika virus infection.¹ Of the two confirmed cases, one resulted in a preterm birth.⁷

ZIKA COMPLICATIONS

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

As of EW 18 of 2017, a total of 112 cases of Guillain-Barré syndrome (GBS) were reported. This represents an increase in GBS cases compared to the annual average between 2011 and 2015 (27 cases). None of the cases have been laboratory-confirmed for Zika virus. There is a temporal association of increased GBS cases and increased Zika cases (**Figure 3**).

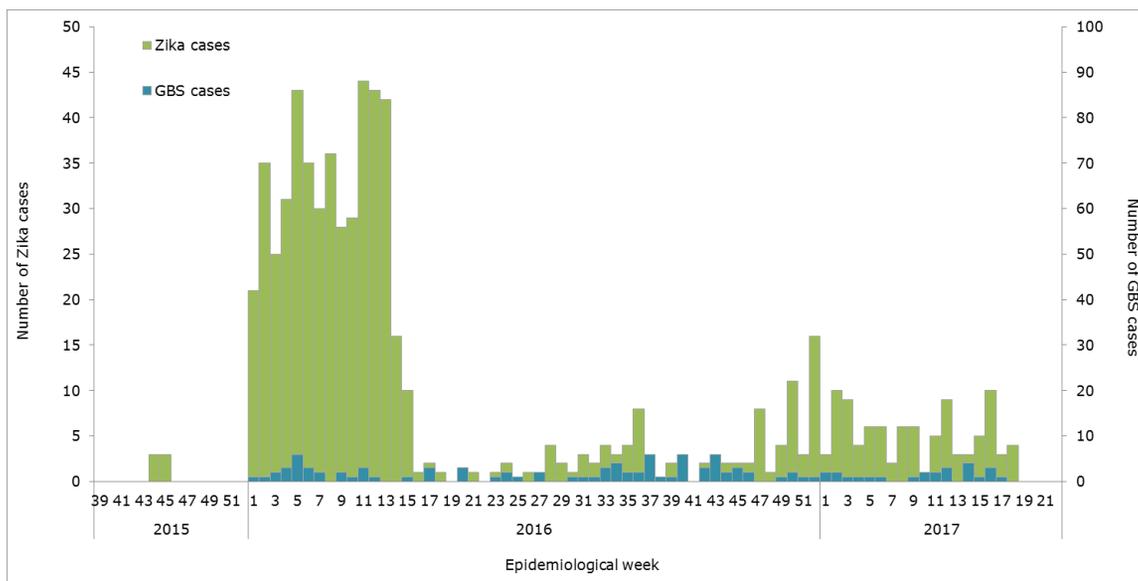
⁵ PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Dengue and Severe Dengue (SD) in the Americas. Available at: http://www.paho.org/hq/index.php?option=com_topics&view=rdmore&cid=6290&Itemid=40734

⁶ 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

⁷ Paraguay Directorate-General for Health Surveillance. Clinical and epidemiological characteristics of cases of Congenital Syndrome with suspected association to Zika virus that entered the Health Surveillance System from November 2015 to August 2016.

Available at: http://vigisalud.gov.py/muestras/VII muestra/Presentaciones_orales/dia1_LUNES_12-12-2016/PO_manhana_12_12_16/PO4.pdf

Figure 3. Suspected and confirmed Zika cases and GBS cases by EW. EW 39 of 2015 to EW 22 of 2017.



Source: Data provided by the Paraguay Ministry of Public Health and Social Welfare to PAHO/WHO¹

CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

As of EW 18 of 2017, the Paraguay Ministry of Public Health and Social Welfare reported two laboratory-confirmed cases of congenital syndrome associated with Zika virus infection. The first case is a live newborn male from the department of Alto Parana which neighbors Brazil. The second case is a live newborn female from the department of Paraguari. Both mothers reported a history of rash during pregnancy. The cases were laboratory confirmed by the *Laboratorio Central de Salud Pública*.⁸

DEATHS AMONG ZIKA CASES

As of EW 18 of 2017, no deaths among Zika cases have been reported by the Paraguay Ministry of Public Health and Social Welfare.

NATIONAL ZIKA SURVEILLANCE GUIDELINES

Paraguay has published a Surveillance Protocol on Zika virus infection, which is available at:

<http://vigisalud.gov.py/wp-content/uploads/2016/05/Vigilancia-Zika-Paraguay-2016-1.pdf>.

LABORATORY CAPACITY

Laboratory confirmation of suspected cases of Zika virus is performed by molecular detection (real time RT-PCR) by the *Laboratorio Central de Salud Pública* at the Paraguay Ministry of Public Health and Social Welfare. The laboratory has also implemented the serology diagnosis based on ELISA IgM detection.

⁸ Paraguay Ministry of Public Health and Social Welfare. Paraguay report its first two microcephaly cases associated with #Zika. 27 July 2016. Available at: <http://www.msps.gov.py/v3/paraguay-reporta-sus-dos-primeros-casos-de-microcefalia-asociados-al-zika/>

INFORMATION-SHARING

The latest information provided by the Paraguay Ministry of Public Health and Social Welfare to PAHO/WHO was from EW 18 of 2017. Information on Zika virus is also available through the epidemiological bulletin published online on a weekly basis by the Paraguay General Directorate of Health Surveillance. At the time of this report, the latest information was available as of EW 19 of 2017.