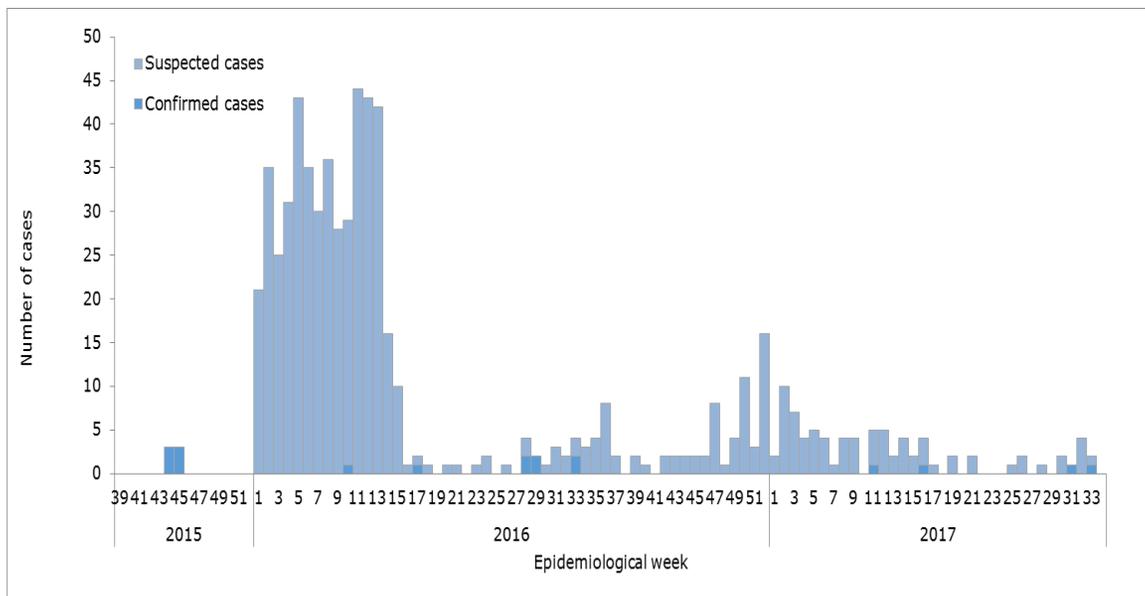


Zika-Epidemiological Report

Paraguay

25 September 2017

Figure 1. Suspected and confirmed Zika cases by epidemiological week (EW). Paraguay. EW 39 of 2015 to EW 34 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 identified in Paraguay.

GEOGRAPHIC DISTRIBUTION

In 2015, confirmed cases were reported in the city of Pedro Juan Caballero in the department of Amambay, 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 Paraguarí.³ In 2017, confirmed cases continue to be reported in the Capital and Central departments.⁴

¹ Reported to PAHO/WHO from Paraguay International Health Regulation (IHR) National Focal Point (NFP) on 13 September 2017

² Paraguay General Directorate of Health Surveillance. Epidemiological Bulletin EW 1 to EW 52 of 2015. Available at: http://vigisalud.gov.py/boletines/30_08_2016_10_27_36_28.01.2016.Boletin-epidemiologico-SE-52.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 30 of 2017. Available at: http://vigisalud.gov.py/boletines/18_08_2017_10_01_36_Boletin-Epidemiologico_SE-30.pdf

TREND

Since the beginning of the outbreak 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 46 of 2016. A new increase in cases was observed between EW 47 of 2016 and EW 15 of 2017, which was followed by a decline in cases. An average of one Zika case per week was reported in the last 8 weeks (EW 27 to EW 34 of 2017).

CIRCULATION OF OTHER ARBOVIRUSES

As of EW 28 of 2017, a total of 1,294 probable dengue cases (18 cases per 100,000 population), including 297 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.⁶

As of EW 30 of 2017, a total of 739 suspected and five laboratory-confirmed cases of chikungunya (11 cases per 100,000) have been reported by the Paraguay health authorities⁷ a similar figure as reported in 2016, with a total of 881 suspected and 38 laboratory-confirmed cases of chikungunya (14 cases per 100,000).⁸

ZIKA VIRUS DISEASE IN PREGNANT WOMEN

As of EW 28 of 2017, the Paraguay IHR NFP reported 31 pregnant women suspected for Zika virus infection and three pregnant women laboratory-confirmed for Zika virus infection.¹ Based on available information of two of the three confirmed cases, one resulted in a preterm birth.⁹

ZIKA COMPLICATIONS

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

As of EW 34 of 2017, a total of 139 cases of Guillain-Barré syndrome (GBS) were reported.¹ This represents an increase in GBS cases compared to the annual average between 2011 and 2015 (27 cases). There is a temporal association of increased GBS cases and increased Zika cases (**Figure 3**). One case of GBS has been laboratory-confirmed for Zika virus in EW 31 of 2017.

⁵ PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Dengue and Severe Dengue (SD) in the Americas, by Country – August 11 2017 (EW 30). Available at:

http://www.paho.org/hq/index.php?option=com_topics&view=rdmore&cid=6290&Itemid=40734

⁶ PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Dengue and Severe Dengue (SD) in the Americas, by Country – January 26 2017 (EW 52). Available at:

http://www.paho.org/hq/index.php?option=com_topics&view=rdmore&cid=6290&Itemid=40734

⁷ PAHO/WHO. Chikungunya: Statistic Data. Number of reported cases of Chikungunya Fever in the Americas – EW 33 (August 18, 2017). Available at:

http://www.paho.org/hq/index.php?option=com_topics&view=readall&cid=5927&Itemid=40931&lang=en

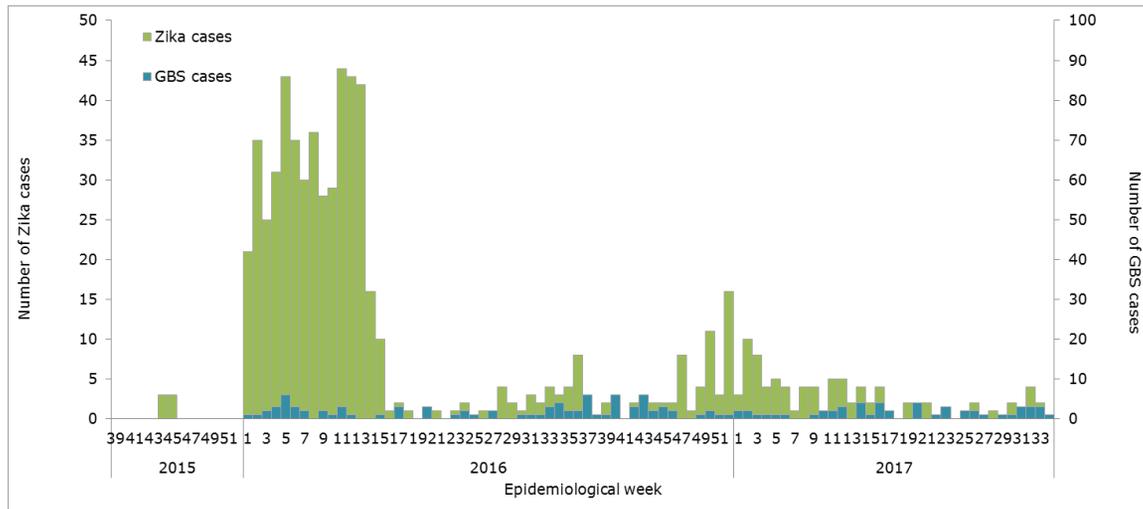
⁸ PAHO/WHO. Chikungunya: Statistic Data. Number of reported cases of Chikungunya Fever in the Americas in 2016.

Available at: http://www.paho.org/hq/index.php?option=com_topics&view=readall&cid=5927&Itemid=40931&lang=en

⁹ 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 34 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 28 of 2017, the Paraguay Ministry of Public Health and Social Welfare reported two laboratory-confirmed cases of congenital syndrome associated with Zika virus infection.¹ 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*.¹⁰

DEATHS AMONG ZIKA CASES

As of EW 28 of 2017, no deaths among Zika cases have been reported by the Paraguay Ministry of Public Health and Social Welfare to PAHO/WHO.

NATIONAL ZIKA SURVEILLANCE GUIDELINES

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

<http://vigisalud.gov.py/imagenes/divet.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.

¹⁰ 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.mspps.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 28 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 34 of 2017.