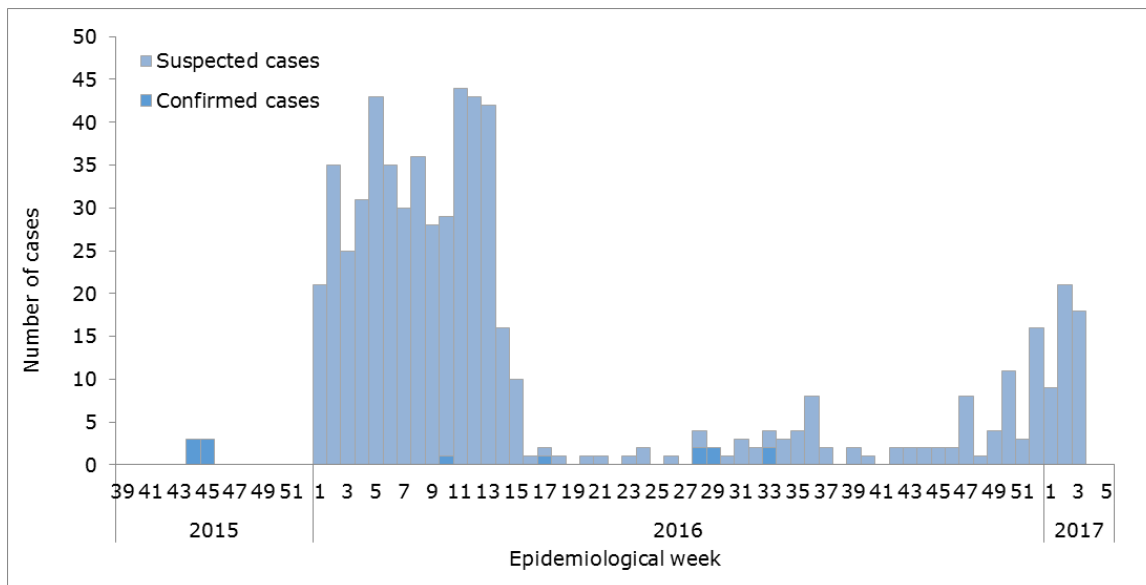


# Zika-Epidemiological Report Paraguay

2 March 2017

**Figure 1.** Suspected and confirmed Zika cases. Paraguay. EW 39 of 2015 to EW 5 of 2017.



Source: Data shared by the Paraguay IHR NFP and reproduced by PAHO/WHO<sup>1</sup>

## 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, six confirmed cases were reported in Pedro Juan Caballero, Amambay Department, which borders Ponta Porá, Brazil.<sup>2</sup> At the time of the report, no further information on geographic case distribution was available.

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

<sup>2</sup> 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](http://vigisalud.gov.py/boletines/30_09_2016_11_42_36_Boletin-Epidemiologico_SE-36.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 3 of 2017 with an average of ten cases reported per week in the last 8 weeks (EW 48 of 2016 to EW 3 of 2017).

## CIRCULATION OF OTHER ARBOVIRUSES

In 2016, the Paraguay health authorities reported a cumulative total of 173,709 probable cases (incidence rate of 2,470 cases per 100,000 population) and 2,556 confirmed cases (36 cases per 100,000 population) of dengue in Paraguay.<sup>3</sup> As of EW 4 of 2017, 2,141 probable cases (30 cases per 100,000 population) and 16 confirmed cases of dengue have been reported.<sup>4</sup>

In 2016, a total of 880 suspected and 38 laboratory-confirmed cases (14 cases per 100,000 population) of chikungunya have been reported in Paraguay.<sup>5</sup> As of EW 4 of 2017, four cases of chikungunya have been reported by the Paraguay health authorities.<sup>6</sup>

## ZIKA VIRUS DISEASE IN PREGNANT WOMEN

As of EW 46 of 2016, the Paraguay IHR NFP reported two pregnant women laboratory-confirmed for zika virus infection.

## ZIKA COMPLICATIONS

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

As of EW 3 of 2017, 92 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**).

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<sup>3</sup> PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Dengue and Severe Dengue (SD) in the Americas by Country. EW 52 of 2016. Available at:

[http://www.paho.org/hq/index.php?option=com\\_topics&view=readall&cid=3273&Itemid=40734&lang=en](http://www.paho.org/hq/index.php?option=com_topics&view=readall&cid=3273&Itemid=40734&lang=en)

<sup>4</sup> PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Dengue and Severe Dengue (SD) in the Americas by Country. EW 7 of 2017. Available at:

[http://www.paho.org/hq/index.php?option=com\\_topics&view=readall&cid=3273&Itemid=40734&lang=en](http://www.paho.org/hq/index.php?option=com_topics&view=readall&cid=3273&Itemid=40734&lang=en)

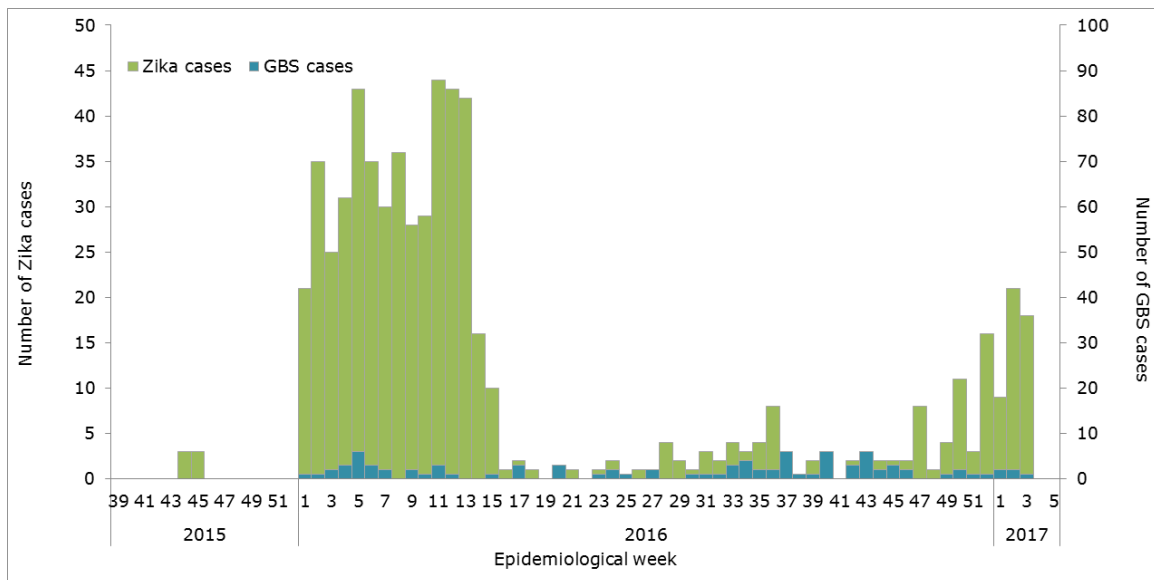
<sup>5</sup> PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Chikungunya Fever in the Americas. EW 52 of 2016.

Available at: [http://www.paho.org/hq/index.php?option=com\\_topics&view=rdmore&cid=8379&Itemid=40931&lang=en](http://www.paho.org/hq/index.php?option=com_topics&view=rdmore&cid=8379&Itemid=40931&lang=en)

<sup>6</sup> PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Chikungunya Fever in the Americas. EW 7 of 2017.

Available at: [http://www.paho.org/hq/index.php?option=com\\_topics&view=rdmore&cid=8379&Itemid=40931&lang=en](http://www.paho.org/hq/index.php?option=com_topics&view=rdmore&cid=8379&Itemid=40931&lang=en)

**Figure 3.** Suspected and confirmed Zika cases and GBS cases by EW. EW 39 of 2015 to EW 5 of 2017.



Source: Data shared by the Paraguay IHR NFP and reproduced by PAHO/WHO<sup>1</sup>

### CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

As of EW 39 of 2016, the Paraguay Ministry of Public Health and Social Wellness 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*.<sup>7</sup>

### DEATHS AMONG ZIKA CASES

As of EW 5 of 2017, no deaths among Zika cases have been reported by the Paraguay Ministry of Public Health and Social Wellness.

### 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 Wellness. The laboratory has also implemented the serology diagnosis based on ELISA IgM detection.

<sup>7</sup> Paraguay Ministry of Public Health and Social Wellness. Paraguay reporta sus dos primeros casos de microcefalia asociados al #Zika. 27 July 2016. Available at: <http://www.mspbs.gov.py/v3/paraguay-reporta-sus-dos-primeros-casos-de-microcefalia-asociados-al-zika/>

## INFORMATION-SHARING

The latest information shared by the Paraguay International Health Regulations (IHR) National Focal Point (NFP) with PAHO/WHO was from EW 39 of 2016. Information on Zika virus is also available through the epidemiological bulletin reported on a weekly basis by the Paraguay General Directorate of Health Surveillance (DGVS) website. At the time of this report, the latest information was available as of EW 3 of 2017.