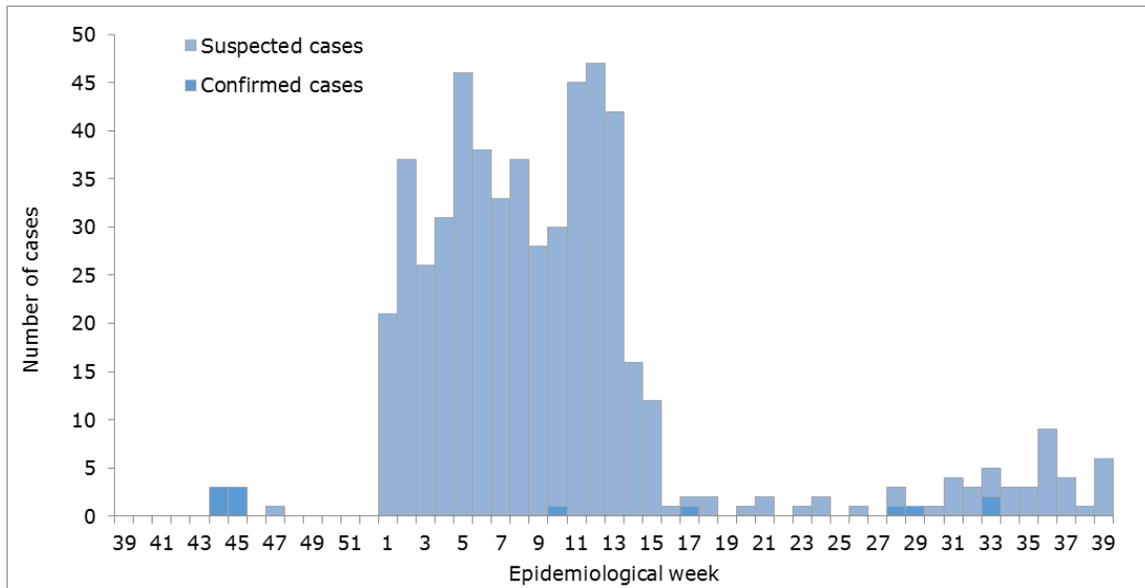


# Zika-Epidemiological Report Paraguay

3 November 2016

**Figure 1.** Suspected and confirmed Zika cases. Paraguay. EW 39 of 2015 to EW 39 of 2016.



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, Arambay Department, which borders Ponta Porá, Brazil.<sup>2</sup> Between EW 1 and EW 39 of 2016, 546 suspected cases and 12 laboratory confirmed cases of Zika were reported. The confirmed cases were reported in Alto Paraná, Amambay, Asuncion Metropolitan Area (AMA), and Paraguari.<sup>3</sup>

<sup>1</sup> Reported to PAHO/WHO from Paraguay International Health Regulation (IHR) National Focal Point (NFP) on 21 October 2016

<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)

<sup>3</sup> Paraguay General Directorate of Health Surveillance. Epidemiological Bulletin EW 1 to EW 40 of 2016. Available at: [http://vigisalud.gov.py/boletines/28\\_10\\_2016\\_12\\_41\\_39\\_Boletin-Epidemiologico\\_SE-40.pdf](http://vigisalud.gov.py/boletines/28_10_2016_12_41_39_Boletin-Epidemiologico_SE-40.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, with an average of five cases reported per week in the last five weeks.

## CIRCULATION OF OTHER ARBOVIRUSES

The number of confirmed cases of both dengue and chikungunya reported between EW 1 and EW 10 of 2016 is lower than the number of cases in the same period in 2015, when a large outbreak of dengue and chikungunya occurred. As of EW 38 of 2016, 68,939 probable (incidence rate of 980 cases per 100,000 population) and 2,537 laboratory confirmed cases of dengue have been reported (serotype 1, 3, and 4).<sup>4</sup>

In 2016, a total of 862 suspected and 38 laboratory-confirmed cases (13 per 100,000 population) of chikungunya has been reported in Honduras.<sup>5</sup>

## ZIKA VIRUS DISEASE IN PREGNANT WOMEN

In EW 10 of 2016, the Paraguay IHR NFP reported to PAHO/WHO, one laboratory confirmed case of Zika virus in a pregnant woman from Luque District, Central Department.

## ZIKA COMPLICATIONS

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

As of EW 39 of 2016, 55 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**).

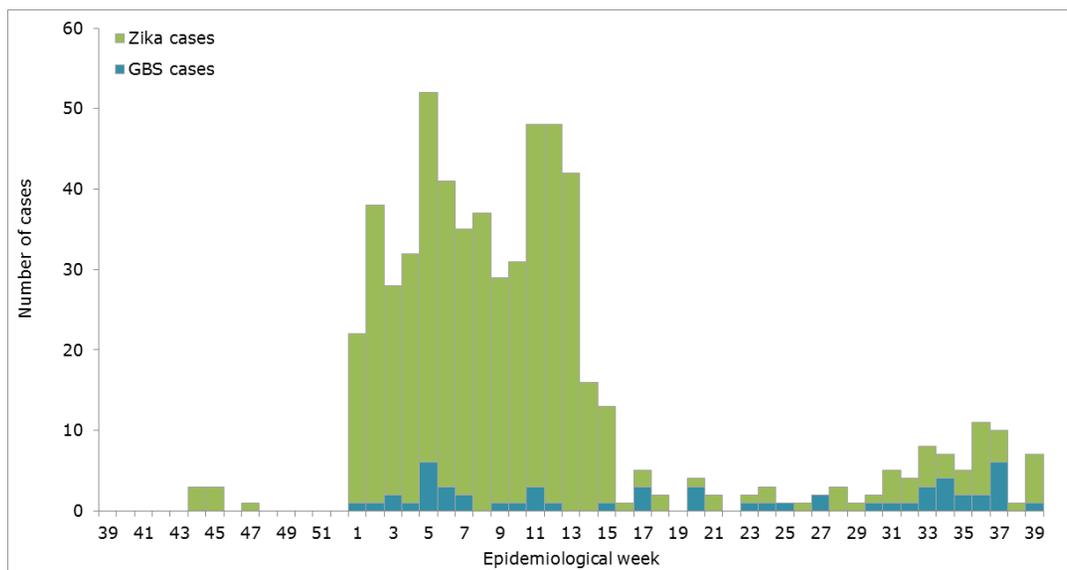
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<sup>4</sup> PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Dengue and Severe Dengue (SD) in the Americas by Country. EW 42 of 2016. Available at:

[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>5</sup> PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Chikungunya Fever in the Americas. EW 342 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)

**Figure 3.** Suspected and confirmed Zika cases and GBS cases by EW. EW 39 of 2015 to EW 39 of 2016.



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>6</sup>

### DEATHS AMONG ZIKA CASES

As of EW 41 of 2016, 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>6</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 39 of 2016.