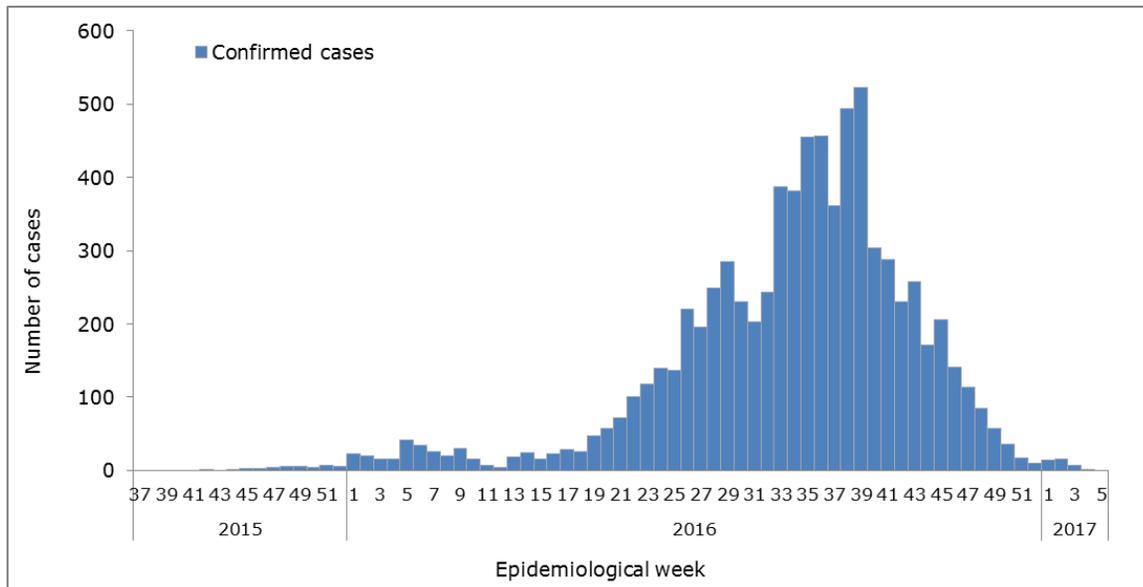


# Zika-Epidemiological Report Mexico

2 March 2017

**Figure 1.** Confirmed Zika cases. Mexico. EW 37 of 2015 to EW 5 of 2017.



Source: Data provided by IHR NFP and reproduced by PAHO/WHO<sup>1</sup>

## FIRST AUTOCHTHONOUS VECTOR-BORNE CASES

In epidemiological week (EW) 48 of 2015, the Mexico International Health Regulations (IHR) National Focal Point (NFP) notified PAHO/WHO of the detection of two autochthonous Zika cases in the states of Nuevo León and Chiapas. The diagnostic testing (RT-PCR) was performed at the national reference laboratory, the *Instituto de Diagnóstico y Referencia Epidemiológicos* (InDRE). The first confirmed autochthonous Zika case was in a resident from Monterrey, the capital of Nuevo León State.

## GEOGRAPHIC DISTRIBUTION

As of EW 4 of 2017, the Mexico Secretariat of Health has reported confirmed autochthonous Zika cases in 25 of 32 states (**Figure 2**).<sup>2</sup> As of EW 4, the states that reported the highest incidence of cases were Colima, Yucatán, Guerrero, and Veracruz.

<sup>1</sup> Reported to PAHO/WHO from Mexico International Health Regulation (IHR) National Focal Point (NFP) on 8 February 2017.

<sup>2</sup> Mexico Secretariat of Health. Zika virus disease confirmed cases. EW 4 of 2017. Available at: <http://www.epidemiologia.salud.gob.mx/dgae/avisos/zika.html>

**Figure 2.** Cumulative confirmed Zika cases per 100,000 population, by state. Mexico. 2015 to 2017.



Source: Data published by the Mexico Secretariat of Health and reproduced by PAHO/WHO<sup>2</sup>

## TREND

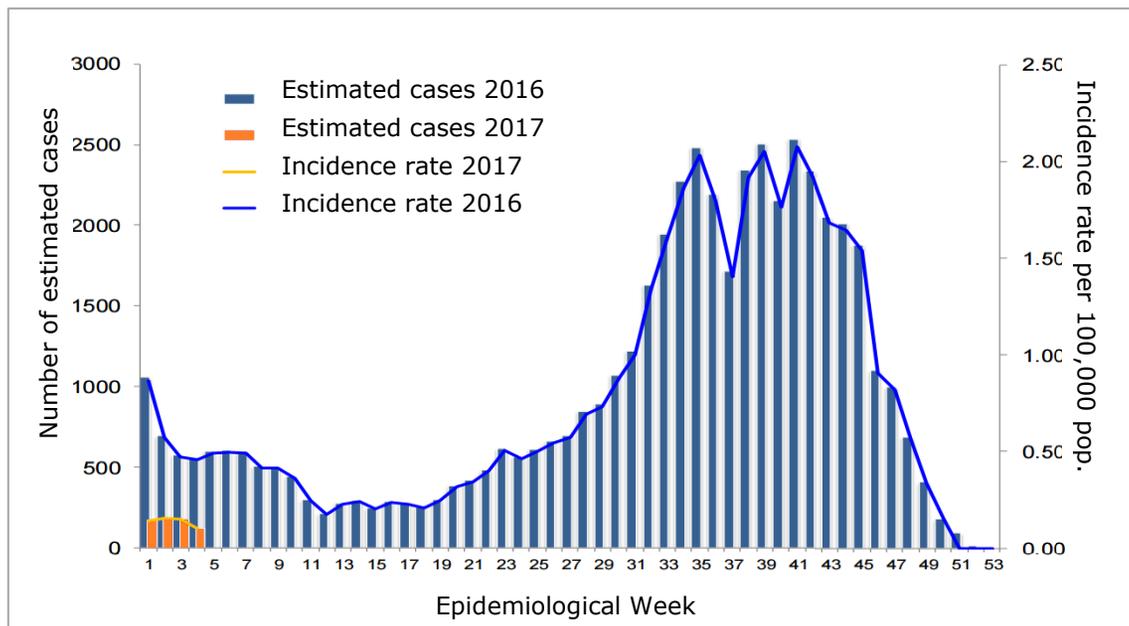
Since the beginning of the outbreak in 2015, an increase in the number of confirmed Zika cases was observed until the peak in EW 39 of 2016. Between EW 40 of 2016 and EW 4 of 2017, a decrease in cases is observed (**Figure 1**). The epidemic curve is based only on confirmed Zika cases and may not accurately illustrate the dynamics of the epidemic.

## CIRCULATION OF OTHER ARBOVIRUSES

In 2016, a total of 130,069 probable cases (incidence rate of 104 cases per 100,000 population) and 17,795 confirmed cases (14 cases per 100,000) of dengue were reported in Mexico.<sup>3</sup> As of EW 5 of 2017, 2,471 probable cases (2 cases per 100,000) and 255 confirmed cases have been reported.<sup>4</sup> The number of cases reported in early 2017 is lower compared with the same period in 2016 (**Figure 3**).<sup>5</sup>

In 2016, Mexico reported a total of 757 confirmed cases of chikungunya.<sup>6</sup> In 2017, the Secretariat of Health has reported four chikungunya cases as of EW 5.<sup>7</sup>

**Figure 3.** Number of suspected dengue cases. Mexico. 2016 and EW 4 of 2017.



Source: Data published by Mexico Secretariat of Health and reproduced by PAHO/WHO

## ZIKA VIRUS DISEASE IN PREGNANT WOMEN

Between 2015 and 2016, a total of 4,390 confirmed cases of zika virus in pregnant women were reported. As of EW 4 of 2017, Mexico's Secretariat of Health has reported 27 confirmed cases of Zika virus disease in pregnant women (**Table 1**).

<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 6 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> Mexico Secretariat of Health. Dengue Bulletin. EW 5 of 2017. Available at:

[http://www.epidemiologia.salud.gob.mx/informes/2017/doctos/dengue/DENGUE\\_2017\\_SE05.pdf](http://www.epidemiologia.salud.gob.mx/informes/2017/doctos/dengue/DENGUE_2017_SE05.pdf)

<sup>6</sup> PAHO/WHO. Chikungunya – Number of Reported Cases of Chikungunya Fever in the Americas, by Country – 30 December 2016 (EW 52). Available at:

[http://www.paho.org/hq/index.php?option=com\\_topics&view=readall&cid=5927&Itemid=40931&lang=en](http://www.paho.org/hq/index.php?option=com_topics&view=readall&cid=5927&Itemid=40931&lang=en)

<sup>7</sup> Mexico Secretariat of Health. Chikungunya confirmed cases. EW 5 of 2017. Available at:

[http://www.epidemiologia.salud.gob.mx/doctos/avisos/2017/chikungunya/DGE\\_CHIK\\_CASOSYDEF\\_SEM05\\_2017.pdf](http://www.epidemiologia.salud.gob.mx/doctos/avisos/2017/chikungunya/DGE_CHIK_CASOSYDEF_SEM05_2017.pdf)

**Table 1.** Confirmed cases of Zika virus infection in pregnant women by State. Mexico. 2015 to EW 5 of 2017.

Federal States	Confirmed Cases
Baja California Sur	5
Campeche	47
Coahuila	2
Chiapas	518
Colima	189
Guerrero	416
Hidalgo	135
Jalisco	33
Michoacán	20
Morelos	188
Nayarit	9
Nuevo León	550
Oaxaca	196
Puebla	19
Quintana Roo	322
San Luis Potosí	22
Sinaloa	19
Sonora	2
Tabasco	236
Tamaulipas	58
Veracruz	788
Yucatán	642
Zacatecas	1
<b>Total</b>	<b>4,417</b>

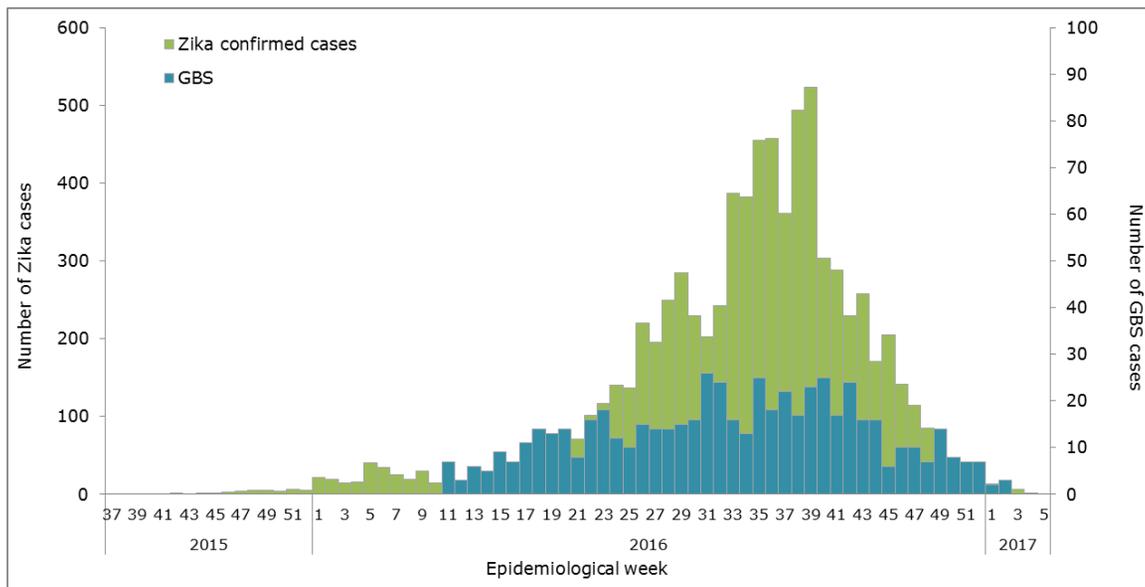
Source: Published by Mexico's Secretariat of Health website and reproduced by PAHO/WHO<sup>2</sup>

## ZIKA COMPLICATIONS

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

As of EW 4 of 2017, the Mexico Secretariat of Health has reported a total of 802 cases of Guillain-Barré syndrome (GBS) nationwide. Of those, 11 were confirmed as being Zika-virus-associated.<sup>1</sup> **Figure 4** shows the distribution of GBS and confirmed Zika cases by epidemiological week. The slight increase of GBS observed between EW 31 and EW 42 coincide with the same increase observed with Zika cases.

**Figure 4.** Confirmed cases of Zika and Guillain-Barré syndrome. Mexico. EW 37 of 2015 to EW 5 of 2017.



Source: Data provided by the Mexico IHR NFP<sup>1</sup>

### CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

On 3 February 2017, the Mexico Ministry of Health (MoH) confirmed their first case of congenital syndrome associated with Zika virus infection.<sup>8</sup> No further cases have been reported as of EW 4 of 2017.

### DEATHS AMONG ZIKA CASES

As of EW 5 of 2017, no deaths among Zika cases have been reported by the Mexico Secretariat of Health.

## NATIONAL ZIKA SURVEILLANCE GUIDELINES

The third edition of the Mexico Zika national guidelines published in May 2016 is available at: [http://www.epidemiologia.salud.gob.mx/doctos/lineamientos/2016/lineamientos\\_ve\\_y\\_lab\\_virus\\_zika.pdf](http://www.epidemiologia.salud.gob.mx/doctos/lineamientos/2016/lineamientos_ve_y_lab_virus_zika.pdf)

<sup>8</sup> Mexico Secretariat of Health. First case of Microcephaly associated with Zika. 3 February 2017. Available at: <http://www.gob.mx/salud/prensa/050-primer-caso-de-microcefalia-asociado-con-zika>

## LABORATORY CAPACITY

Initially, the diagnosis for Zika virus is performed at the *Instituto de Diagnóstico y Referencia Epidemiológicos "Dr Martínez Báez"* (InDRE) of the Mexico Secretariat of Health, by molecular detection (real-time RT-PCR), including in-house multiplex platforms. InDRE has also implemented the genetic sequencing for viruses and molecular detection of Zika virus and other arboviruses in mosquitoes. Currently, the diagnosis is decentralized at the Mexico Public Health Laboratory Network (25 laboratories in the country), including proficiency testing through an external quality assessment scheme.

The diagnostic algorithms for arboviruses in Mexico have been modified to include the molecular testing for chikungunya, dengue (DEN 1-4), and Zika virus.

## INFORMATION-SHARING

The Mexico IHR NFP notifies PAHO/WHO of confirmed Zika cases on a weekly basis, and the epidemiological bulletin is published by the Mexico Secretariat of Health on a weekly basis. At the time of this report, the latest information available was from EW 4 of 2017.