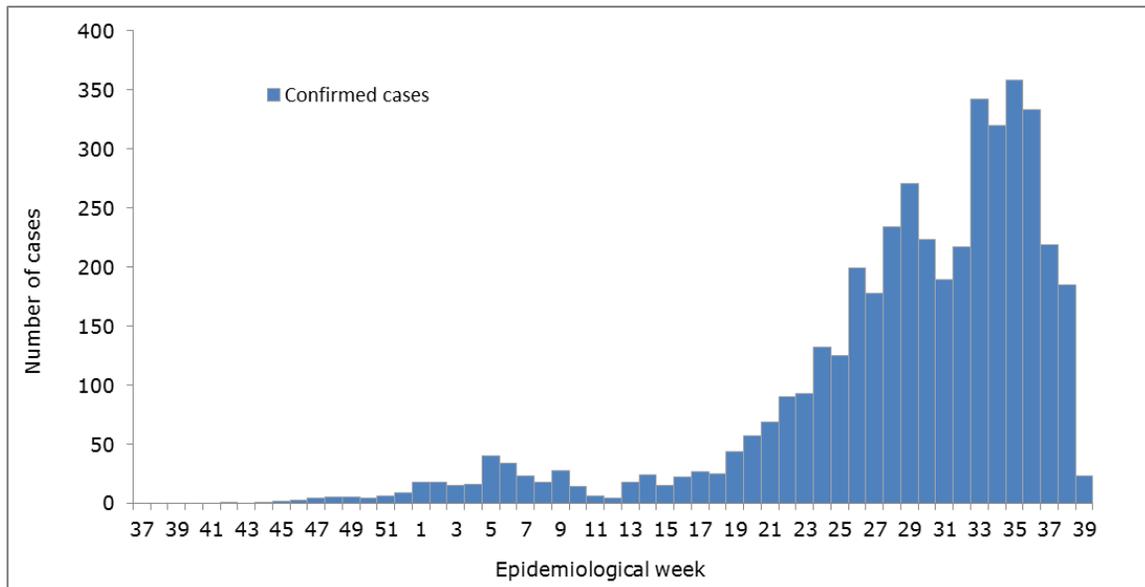


# Zika-Epidemiological Report Mexico

2 November 2016

**Figure 1.** Confirmed Zika cases. Mexico. EW 37 of 2015 to EW 39 of 2016.



Source: Data provided by Mexico Secretariat of Health to PAHO/WHO

## FIRST AUTOCHTHONOUS VECTOR-BORNE CASES

On 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 41 of 2016, the Mexico Secretariat of Health has reported confirmed autochthonous Zika cases in 23 of 32 states (**Figure 2**).<sup>1</sup> As of EW 41, the states that reported the highest incidence of cases were Colima, Guerrero, Yucatán, and Veracruz.

<sup>1</sup> Mexico Secretariat of Health. Zika virus disease confirmed cases. EW 41 of 2016. Available at: [http://www.epidemiologia.salud.gob.mx/doctos/avisos/2016/zika/DGE\\_ZIKA\\_CASOS\\_SEM41\\_2016.pdf](http://www.epidemiologia.salud.gob.mx/doctos/avisos/2016/zika/DGE_ZIKA_CASOS_SEM41_2016.pdf)

**Figure 2.** Cumulative confirmed Zika cases per 100,000 population, by state. Mexico. 2015 to 2016.



Source: Data published by the Mexico Secretariat of Health weekly Epidemiological Bulletin and reproduced by PAHO/WHO

## TREND

Since the beginning of the outbreak in 2015, a gradual increase in the number of confirmed Zika cases was observed until the peak in EW 35 of 2016 (**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

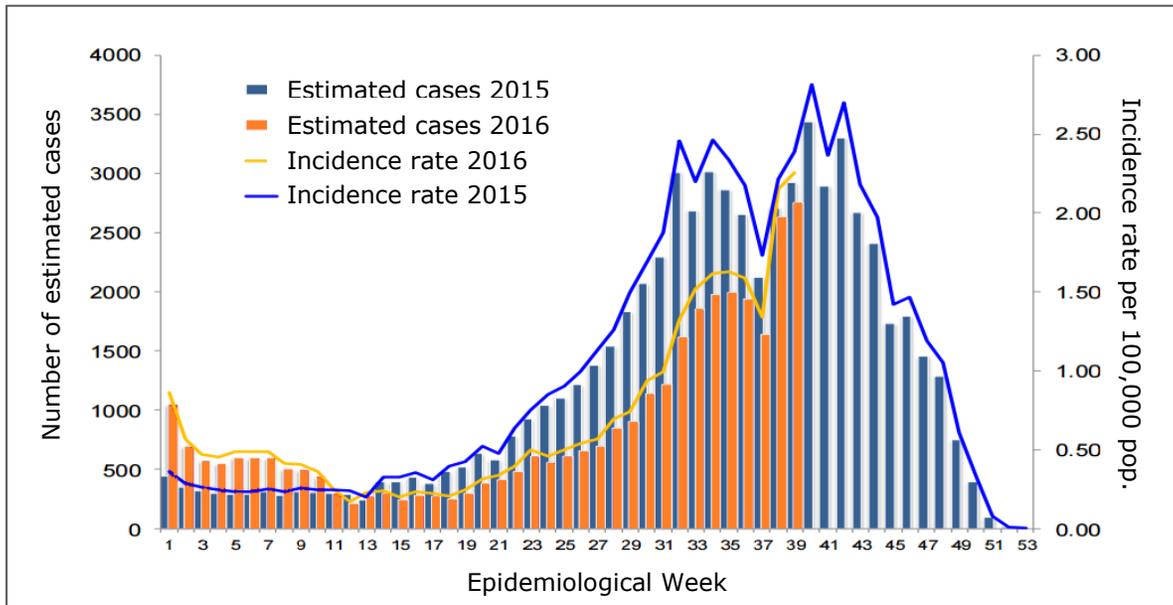
According to the Mexico Secretariat of Health dengue bulletin, there was a decreasing trend in cases of dengue from EW 1 to EW 12 of 2016. Between EW 13 and EW 35 of 2016, an increasing number of cases were reported. From EW 35 to EW 37, a decrease in dengue cases occurred followed by a peak in EW 39 of 2016. The number of cases reported in early 2016 is higher compared with the same period in 2015. However, from EW 11 of 2016, a lower incidence was observed compared to 2015 (**Figure 3**).<sup>2</sup>

<sup>2</sup> Mexico Secretariat of Health. Dengue Bulletin. EW 41 of 2016. Available at:

[http://www.epidemiologia.salud.gob.mx/informes/2016/doctos/dengue/DENGUE\\_2016\\_SE41.pdf](http://www.epidemiologia.salud.gob.mx/informes/2016/doctos/dengue/DENGUE_2016_SE41.pdf)

In 2015, Mexico reported a total of 12,588 confirmed cases of chikungunya, including 4 deaths. In 2016, the Secretariat of Health has reported 555 chikungunya cases as of EW 41. As of EW 41 of 2016, n deaths among chikungunya cases were reported.<sup>3</sup>

**Figure 3.** Number of suspected dengue cases. Mexico. 2015 and EW 39 of 2016.



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

## ZIKA VIRUS DISEASE IN PREGNANT WOMEN

As of EW 41 of 2016, Mexico's Secretariat of Health has reported 2,593 confirmed cases of Zika virus disease in pregnant women (**Table 1**).<sup>1</sup>

<sup>3</sup> Mexico Secretariat of Health. Chikungunya confirmed cases. EW 41 of 2016. Available at: [http://www.epidemiologia.salud.gob.mx/doctos/avisos/2016/chik/DGE\\_CHIK\\_CASOSYDEF\\_SEM41\\_2016.pdf](http://www.epidemiologia.salud.gob.mx/doctos/avisos/2016/chik/DGE_CHIK_CASOSYDEF_SEM41_2016.pdf)

**Table 1.** Confirmed cases of Zika virus infection in pregnant women by State. Mexico. 2015 to EW 41 of 2016.

<b>Federal States</b>	<b>Confirmed Cases</b>
Campeche	32
Chiapas	477
Colima	120
Guerrero	389
Hidalgo	77
Jalisco	12
Michoacán	18
Morelos	35
Nayarit	3
Nuevo León	32
Oaxaca	195
Puebla	4
Quintana Roo	212
San Luis Potosí	3
Tabasco	159
Tamaulipas	19
Veracruz	580
Yucatán	226
<b>Total</b>	<b>2,593</b>

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

## ZIKA COMPLICATIONS

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

As of EW 37 of 2016, five Zika-virus-associated cases of Guillain-Barré syndrome (GBS) have been reported by the Mexico Secretariat of Health. The cases were reported in the states of Tabasco (2), Chiapas (1), Guerrero (1) and Quintana Roo (1).<sup>4</sup>

### CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

As of EW 41 of 2016, no cases of congenital syndrome associated with Zika virus infection have been reported by the Mexico Secretariat of Health.

<sup>4</sup> Mexico Secretariat of Health. Epidemiological bulletin. EW 37 of 2016. Available at: <http://www.epidemiologia.salud.gob.mx/doctos/boletin/2016/BOL-EPID-2016-SE37.pdf>

## DEATHS AMONG ZIKA CASES

As of EW 41 of 2016, 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)

## 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 41 of 2016.