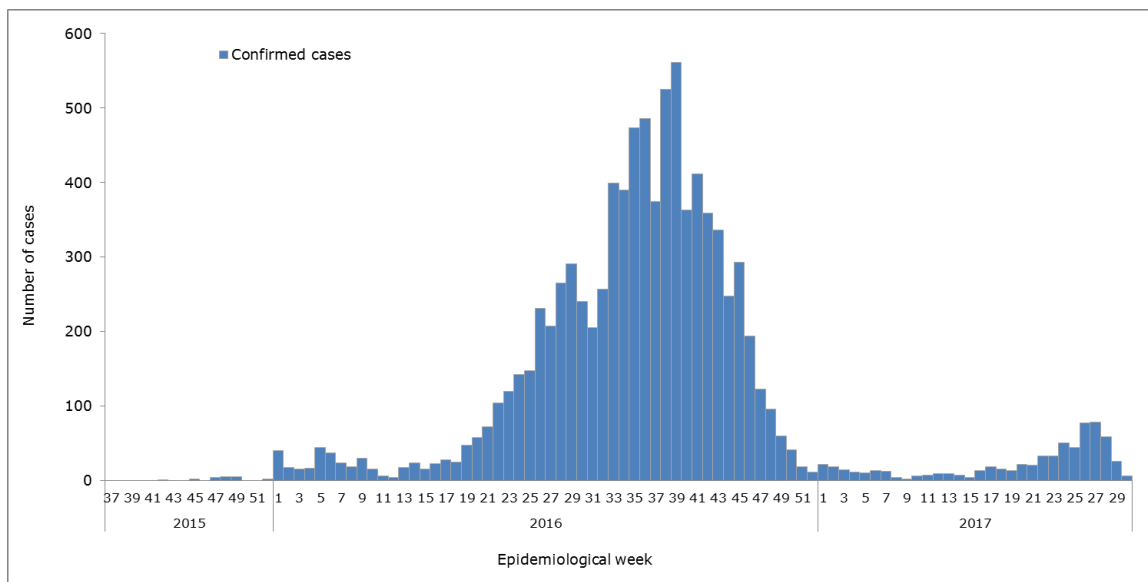


# Zika-Epidemiological Report Mexico

25 September 2017

**Figure 1.** Confirmed Zika cases by epidemiological week. Mexico. EW 37 of 2015 to EW 30 of 2017.



Source: Data provided by Mexico Secretariat of Health to 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, vector-borne transmission, 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 34 of 2017, the Mexico Secretariat of Health has reported confirmed autochthonous Zika cases in 27 of 32 states (**Figure 2**).<sup>2</sup> As of EW 34, the states that reported the highest cumulative incidence rate of cases were Yucatán (61 cases per 100,000 population), Colima (40 cases per 100,000), Guerrero (25 cases per 100,000), Veracruz (25 cases per 100,000), and Quintana Roo (24 cases per 100,000).

<sup>1</sup> Reported to PAHO/WHO by the Mexico International Health Regulation (IHR) National Focal Point (NFP) on 10 August 2017.

<sup>2</sup> Mexico Secretariat of Health. Zika virus disease confirmed cases. EW 34 of 2017. (Accessed on 7 September 2017). Available at: <http://www.gob.mx/salud/acciones-y-programas/zika-informacion-relevante>

**Figure 2.** Cumulative confirmed Zika cases per 100,000 population, by state. Mexico. 2015 to EW 34 of 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. Transmission continues during 2017, although with less intensity (**Figure 1**). From EW 20 to 26 of 2017, an increased incidence of Zika cases was observed. The epidemic curve is based only on laboratory confirmed Zika cases and may not accurately illustrate the dynamics of the epidemic.

## CIRCULATION OF OTHER ARBOVIRUSES

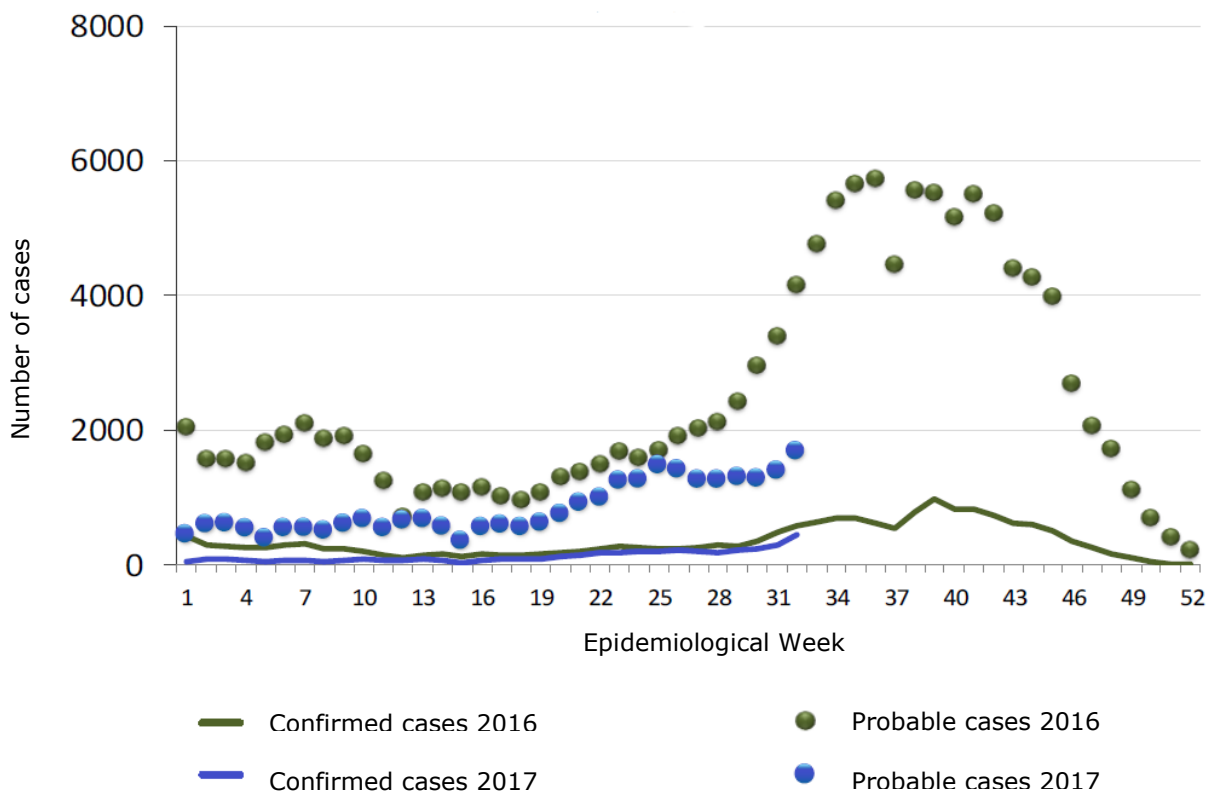
As of EW 33 of 2017, a total of 28,302 probable dengue cases (23 cases per 100,000 population) and 3,945 confirmed cases have been reported.<sup>3</sup> The number of cases reported in early 2017 is lower compared with the same period in 2016; however, an increase in the number of probable and

<sup>3</sup> PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Dengue and Severe Dengue (SD) in the Americas. Available at: [http://www.paho.org/hq/index.php?option=com\\_topics&view=rdmore&cid=6290&Itemid=40734](http://www.paho.org/hq/index.php?option=com_topics&view=rdmore&cid=6290&Itemid=40734)

confirmed cases is observed from EW 17 of 2017 (**Figure 3**).<sup>4</sup> In 2016, a total of 130,069 probable dengue cases (104 cases per 100,000) and 17,795 confirmed dengue cases (14 cases per 100,000) were reported in Mexico. In 2015, a total of 219,593 probable dengue cases (175 cases per 100,000) and 26,665 confirmed dengue cases (21 cases per 100,000) were reported in Mexico.

In 2017, as of EW 33, Mexico has reported 23 confirmed cases of chikungunya.<sup>5</sup> Mexico reported a total of 757 and 11,577 confirmed cases of chikungunya in 2016 and 2015, respectively.

**Figure 3.** Number of probable and confirmed dengue cases. Mexico. 2016 and EW 34 of 2017.



Source: Data published by the Mexico Secretariat of Health and reproduced by PAHO/WHO<sup>5</sup>

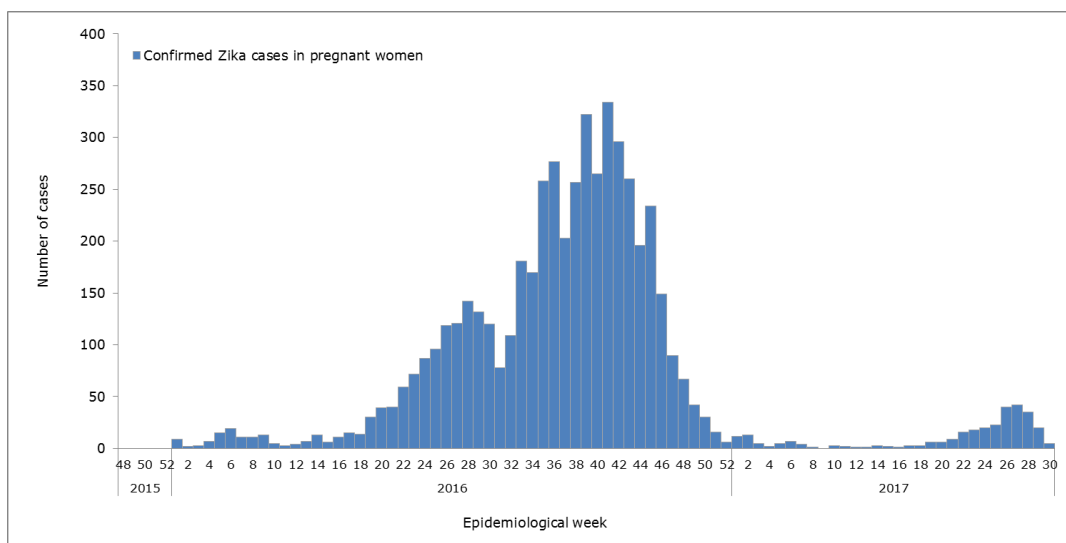
### ZIKA VIRUS DISEASE IN PREGNANT WOMEN

Between 2015 and 2016, a total of 5,065 confirmed cases of Zika virus in pregnant women were reported (**Figure 4**). Between EW 1 and 34 of 2017, Mexico’s Secretariat of Health has reported 602 confirmed cases of Zika virus disease in pregnant women (**Table 1**).<sup>2</sup>

<sup>4</sup> Mexico Secretariat of Health. Dengue epidemiological overview. EW 34 of 2017. Available at: [https://www.gob.mx/cms/uploads/attachment/file/252529/Pano\\_denque\\_sem\\_34\\_2017.pdf](https://www.gob.mx/cms/uploads/attachment/file/252529/Pano_denque_sem_34_2017.pdf)

<sup>5</sup> PAHO/WHO. Chikungunya: Statistic Data. Number of reported cases of Chikungunya Fever in the Americas. 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)

**Figure 4.** Confirmed Zika cases in pregnant women. Mexico. EW 48 of 2015 to EW 30 of 2017.



Source: Data provided by the Mexico Secretariat of Health to PAHO/WHO<sup>1</sup>

**Table 1.** Confirmed cases of Zika virus disease in pregnant women by State. Mexico. 2015 to EW 34 of 2017.

Federal States	Confirmed Cases
Baja California Sur	6
Campeche	54
Coahuila	4
Chiapas	562
Colima	203
Guerrero	478
Hidalgo	142
Jalisco	52
Mexico	1
Michoacán	21
Morelos	267
Nayarit	64
Nuevo León	619
Oaxaca	210
Puebla	54
Querétaro	2

Suggested citation: Pan American Health Organization / World Health Organization. Zika - Epidemiological Report Mexico. September 2017. Washington, D.C.: PAHO/WHO; 2017

Quintana Roo	334
San Luis Potosí	136
Sinaloa	26
Sonora	2
Tabasco	286
Tamaulipas	341
Veracruz	878
Yucatán	924
Zacatecas	1
<b>Total</b>	<b>5,667</b>

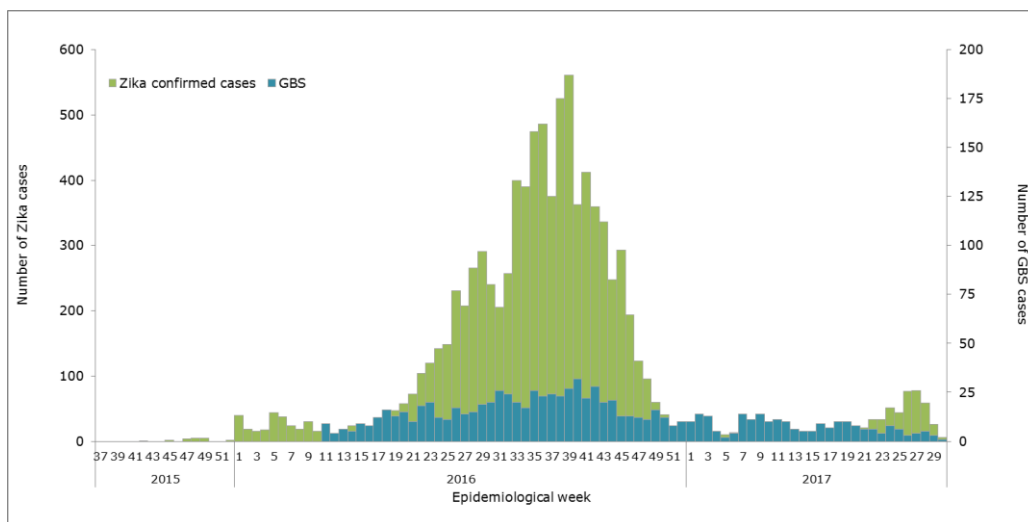
Source: Published by the Mexico Secretariat of Health website and reproduced by PAHO/WHO<sup>2</sup>

## ZIKA COMPLICATIONS

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

As of EW 30 of 2017, the Mexico Secretariat of Health has reported a total of 1,131 cases of Guillain-Barré syndrome (GBS) nationwide. Of those, 11 were confirmed as being Zika-virus-associated.<sup>1</sup> **Figure 5** shows the distribution of GBS and confirmed Zika cases by epidemiological week. The slight increase of GBS observed between EW 31 and EW 42 of 2016 coincides with the same increase observed with Zika cases.

**Figure 5.** Confirmed cases of Zika and Guillain-Barré syndrome. Mexico. EW 37 of 2015 to EW 30 of 2017.



Source: Data provided by the Mexico Secretariat of Health to PAHO/WHO<sup>1</sup>

## CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

On 3 February 2017, the Mexico Secretariat of Health confirmed their first case of congenital syndrome associated with Zika virus infection.<sup>6</sup> As of EW 30 of 2017, Mexico has reported a total of 15 confirmed cases of congenital syndrome associated with Zika virus infection.<sup>1</sup> Of the fifteen cases, three mothers did not present clinical symptoms during pregnancy.<sup>7</sup> Three cases died after birth and one was a stillbirth.

### DEATHS AMONG ZIKA CASES

As of EW 35 of 2017, no deaths among Zika cases have been reported by the Mexico Secretariat of Health to PAHO/WHO.

## NATIONAL ZIKA SURVEILLANCE GUIDELINES

The third edition of the Mexico Zika national guidelines published in May 2016 is available at: [http://www.gob.mx/cms/uploads/attachment/file/207354/lineamientos\\_ve\\_y\\_lab\\_virus\\_zika.pdf](http://www.gob.mx/cms/uploads/attachment/file/207354/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 periodically and an epidemiological bulletin is published online by the Mexico Secretariat of Health on a weekly basis. At the time of this report, the latest information shared by the Mexico IHR NFP is as of EW 30 of 2017 while the latest information available from the Mexico Secretariat of Health epidemiological bulletin is as of EW 34 of 2017.

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<sup>6</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>

<sup>7</sup> Mexico Secretariat of Health. Confirmed cases of Congenital Syndrome associated with Zika, Mexico 2017. Accessed 7 September 2017. Available at: <https://www.gob.mx/salud/documentos/desglose-de-casos-de-sindrome-congenito-asociado-a-zika>