Pan American Health Organization

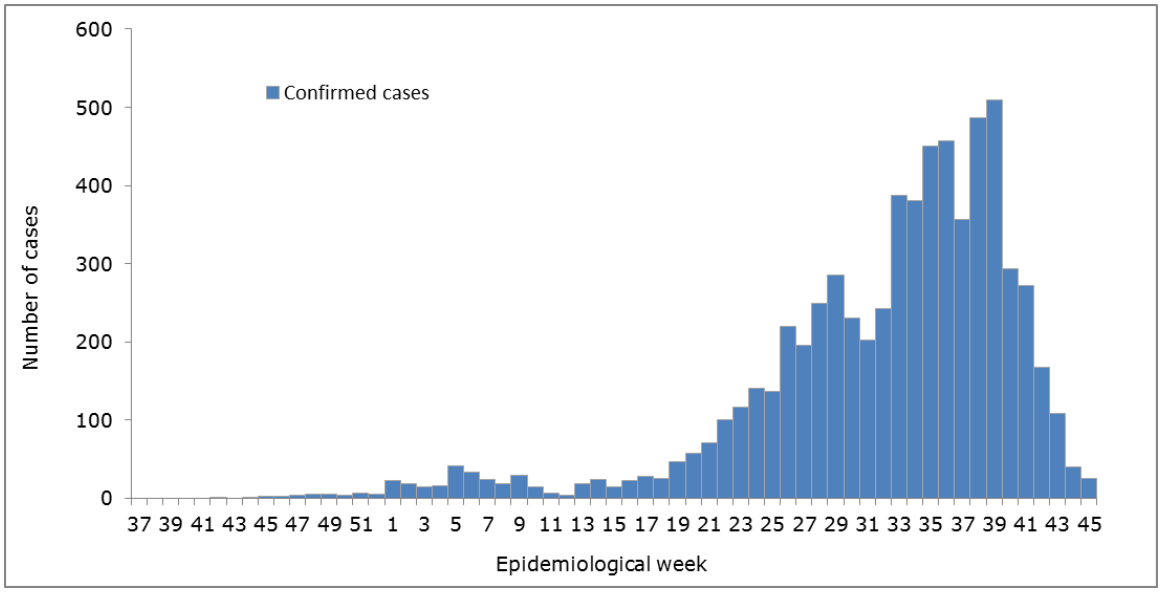
World Health Organization
REGIONAL OFFICE FOR THE Americas

Zika-Epidemiological Report

Mexico

20 December 2016

Figure 1. Confirmed Zika cases. Mexico. EW 37 of 2015 to EW 45 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 48 of 2016, the Mexico Secretariat of Health has reported confirmed autochthonous Zika cases in 24 of 32 states (**Figure 2**).[1] As of EW 41, the states that reported the highest incidence of cases were Colima, Yutacán, Guerrero, and Veracruz.

[1] Mexico Secretariat of Health. Zika virus disease confirmed cases. EW 48 of 2016. Available at: http://www.epidemiologia.salud.gob.mx/doctos/avisos/2016/zika/DGE_ZIKA_CASOS_SEM48_2016.pdf

Suggested citation: Pan American Health Organization / World Health Organization. Zika - Epidemiological Report Mexico. December 2016. Washington, D.C.: PAHO/WHO; 2016

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 EW 36 of 2016. An increase in cases was observed up until a peak in EW 39 of 2016. After the peak in EW 39 up until EW 45, a decrease in cases has been reported (**Figure 1**). The epidemic curve is based only on confirmed Zika cases and may not accurately illustrate the dynamics of the epidemic.

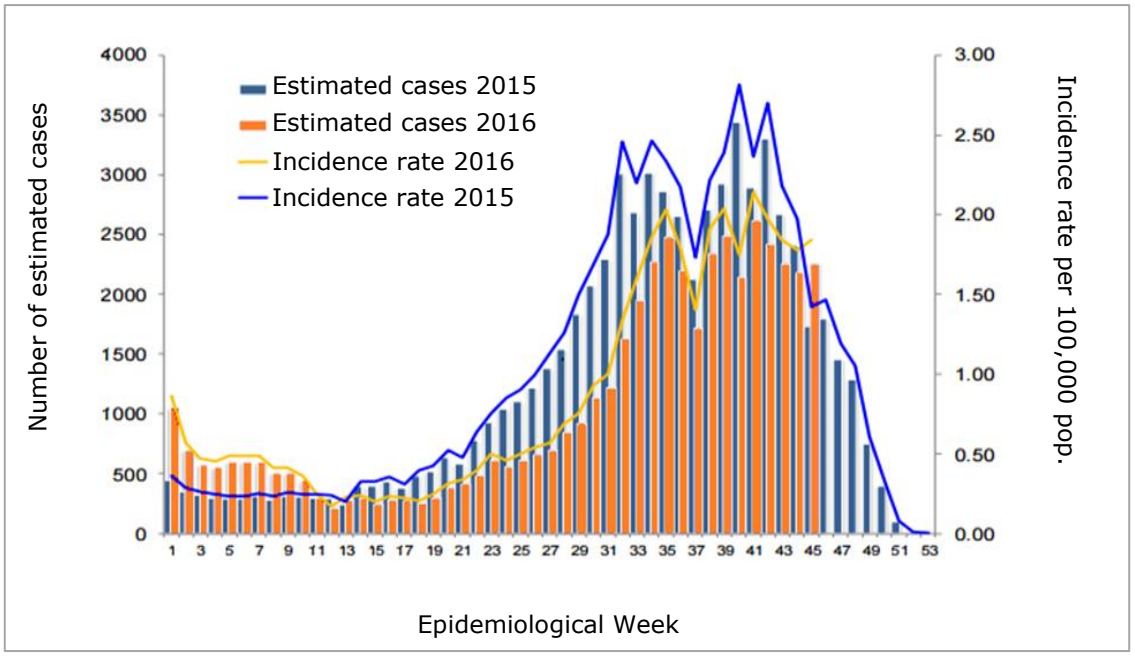
CIRCULATION OF OTHER ARBOVIRUSES

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 an increase in cases up to EW 42 of 2016 where a peak in cases was observed. The number of cases reported in early 2016 is higher compared with the same period in 2015. Then

from EW 11 to EW 45 of 2016, a lower incidence was observed compared to 2015, however, in EW 46 a higher incidence rate has been reported in 2016 than the same EW in 2015 (**Figure 3**).[2]

In 2015, Mexico reported a total of 12,588 confirmed cases of chikungunya, including 4 deaths. In 2016, the Secretariat of Health has reported716 chikungunya cases as of EW 47. As of EW 47 of 2016, no deaths among chikungunya cases were reported.[3]

Figure 3. Number of suspected dengue cases. Mexico. 2015 and EW 46 of 2016.



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

ZIKA VIRUS DISEASE IN PREGNANT WOMEN

As of EW 48 of 2016, Mexico's Secretariat of Health has reported 3,669confirmed cases of Zika virus disease in pregnant women (**Table 1**).[1]

[2] Mexico Secretariat of Health. Dengue Bulletin. EW 47 of 2016. Available at: http://www.epidemiologia.salud.gob.mx/informes/2016/doctos/dengue/DENGUE_2016_SE47.pdf
[3] Mexico Secretariat of Health. Chikungunya confirmed cases. EW 47 of 2016. Available at: http://www.epidemiologia.salud.gob.mx/doctos/avisos/2016/chik/DGE_CHIK_CASOSYDEF_SEM47_2016.pdf

Table 1. Confirmed cases of Zika virus infection in pregnant women by State. Mexico. 2015 to EW 47 of 2016.

Federal States	Confirmed Cases
Baja California Sur	3
Campeche	47
Coahuila	1
Chiapas	517
Colima	183
Guerrero	406
Hidalgo	129
Jalisco	27
Michoacán	19
Morelos	131
Nayarit	3
Nuevo León	225
Oaxaca	195
Puebla	12
Quintana Roo	306
San Luis Potosí	15
Sinaloa	7
Tabasco	219
Tamaulipas	33
Veracruz	737
Yucatán	453
Zacatecas	1
Total	**3,669**

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).[4]

[4] 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

CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

As of EW 49 of 2016, no cases of congenital syndrome associated with Zika virus infection have been reported by the Mexico Secretariat of Health.

DEATHS AMONG ZIKA CASES

As of EW 49 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

LABORATORY CAPACITY

Initially, the diagnosis for Zika virus is performed at the *Instituto de Diagnóstico y Referencia Epidemiológicos* "Dr Martinez 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 47 of 2016.

Suggested citation: Pan American Health Organization / World Health Organization. Zika - Epidemiological Report Mexico. December 2016. Washington, D.C.: PAHO/WHO; 2016