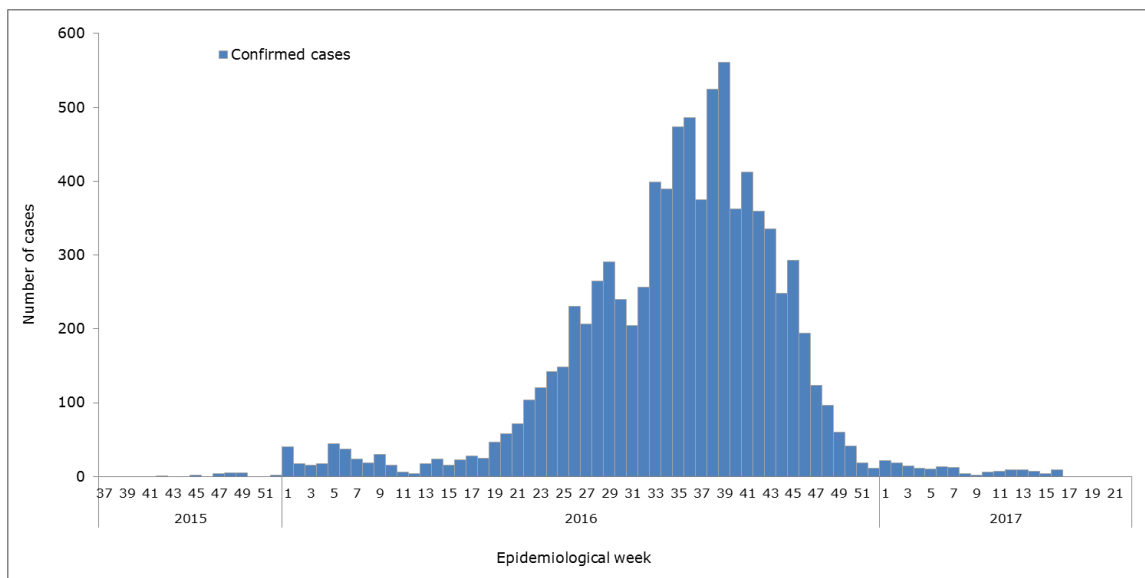


Zika-Epidemiological Report Mexico

29 June 2017

Figure 1. Confirmed Zika cases. Mexico. EW 37 of 2015 to EW 22 of 2017.



Source: Data provided by Mexico Secretariat of Health to PAHO/WHO¹

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 24 of 2017, the Mexico Secretariat of Health has reported confirmed autochthonous Zika cases in 25 of 32 states (**Figure 2**).² As of EW 24, the states that reported the highest incidence of cases were Yucatán (60 cases per 100,000 population), Colima (40 cases per 100,000), Guerrero (24 cases per 100,000), Veracruz (24 cases per 100,000), and Quintana Roo (24 cases per 100,000).

¹ Reported to PAHO/WHO by the Mexico International Health Regulation (IHR) National Focal Point (NFP) on 8 May 2017.

² Mexico Secretariat of Health. Zika virus disease confirmed cases. EW 24 of 2017. (Accessed on 27 June 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 24 of 2017.



Source: Data published by the Mexico Secretariat of Health and reproduced by PAHO/WHO²

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**). The epidemic curve is based only on confirmed Zika cases and may not accurately illustrate the dynamics of the epidemic.

CIRCULATION OF OTHER ARBOVIRUSES

As of EW 24 of 2017, a total of 3,782 probable dengue cases (3 cases per 100,000 population) and 1,793 confirmed cases have been reported.³ The number of cases reported in early 2017 is lower compared with the same period in 2016 (**Figure 3**).⁴ 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

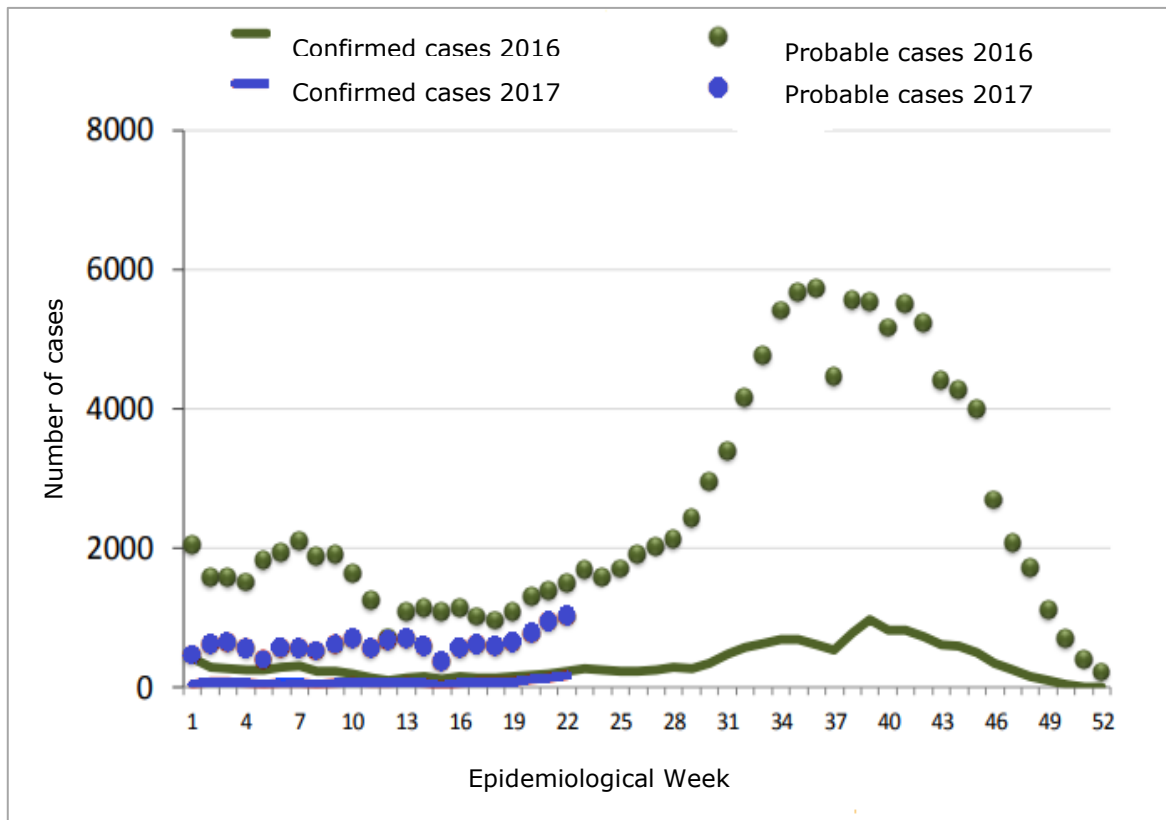
³ PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Dengue and Severe Dengue (SD) in the Americas. Available at: http://www.paho.org/hq/index.php?option=com_topics&view=rdmore&cid=6290&Itemid=40734

⁴ Mexico Secretariat of Health. Dengue epidemiological overview. EW 24 of 2017. Available at: http://www.gob.mx/cms/uploads/attachment_data/file/233479/Pano_dengue_sem_24_2017.pdf

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 23, Mexico has reported 15 confirmed cases of chikungunya.⁵ 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 24 of 2017.



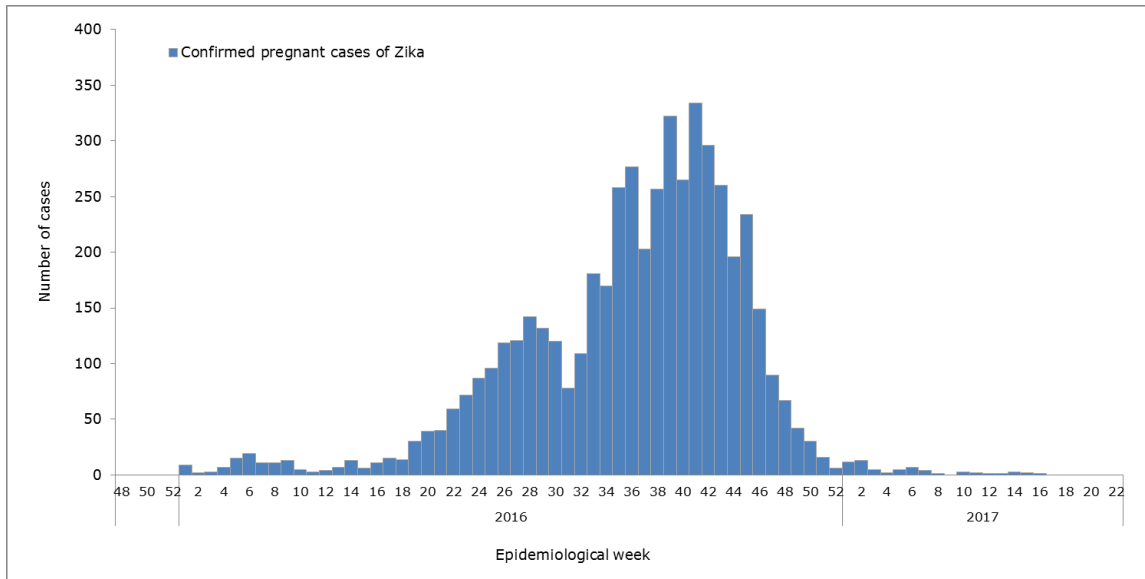
Source: Data published by the Mexico Secretariat of Health and reproduced by PAHO/WHO⁵

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 24 of 2017, Mexico’s Secretariat of Health has reported 108 confirmed cases of Zika virus disease in pregnant women (**Table 1**).

⁵ 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

Figure 4. Confirmed pregnant cases of Zika. Mexico. EW 48 of 2015 to EW 22 of 2017.



Source: Data provided by the Mexico Secretariat of Health to PAHO/WHO¹

Table 1. Confirmed cases of Zika virus disease in pregnant women by State. Mexico. 2015 to EW 24 of 2017.

Federal States	Confirmed Cases
Baja California Sur	6
Campeche	53
Coahuila	2
Chiapas	561
Colima	203
Guerrero	476
Hidalgo	136
Jalisco	39
Michoacán	21
Morelos	214
Nayarit	32
Nuevo León	600
Oaxaca	210
Puebla	37
Quintana Roo	333

San Luis Potosí	37
Sinaloa	26
Sonora	2
Tabasco	286
Tamaulipas	104
Veracruz	873
Yucatán	921
Zacatecas	1
Total	5,173

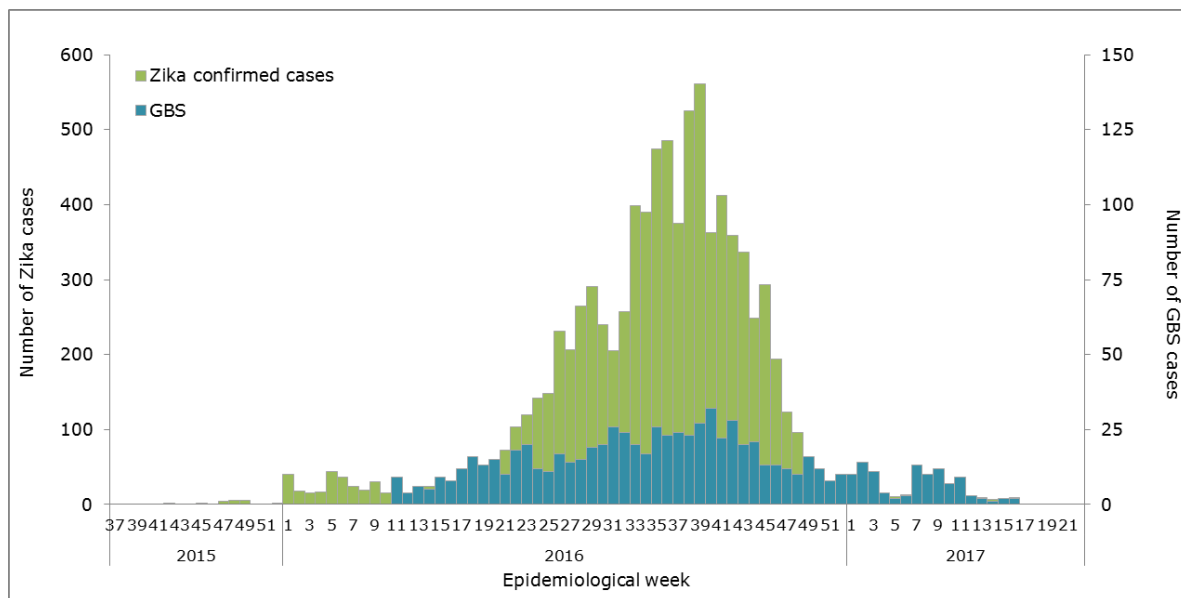
Source: Published by the Mexico Secretariat of Health website and reproduced by PAHO/WHO²

ZIKA COMPLICATIONS

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

As of EW 17 of 2017, the Mexico Secretariat of Health has reported a total of 1,011 cases of Guillain-Barré syndrome (GBS) nationwide. Of those, 15 were confirmed as being Zika-virus-associated.¹ **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 coincide 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 22 of 2017.



Source: Data provided by the Mexico Secretariat of Health to PAHO/WHO¹

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.⁶ As of EW 17 of 2017, Mexico has reported a total of 5 confirmed cases of congenital syndrome associated with Zika virus infection.¹ Of the five cases, one mother did not present clinical symptoms during pregnancy.⁷ Two of the five cases have died.

DEATHS AMONG ZIKA CASES

As of EW 17 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.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 from EW 17 while the latest information available from the Mexico Secretariat of Health epidemiological bulletin is from EW 24 of 2017.

⁶ 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>

⁷ Mexico Secretariat of Health. Confirmed cases of Congenital Syndrome associated with Zika, Mexico 2017. 13 March 2017. Available at: http://www.gob.mx/cms/uploads/attachment/file/207828/Cuadro_Sx_Congenito_relacionado_a_Zika.pdf