Pan American Health Organization

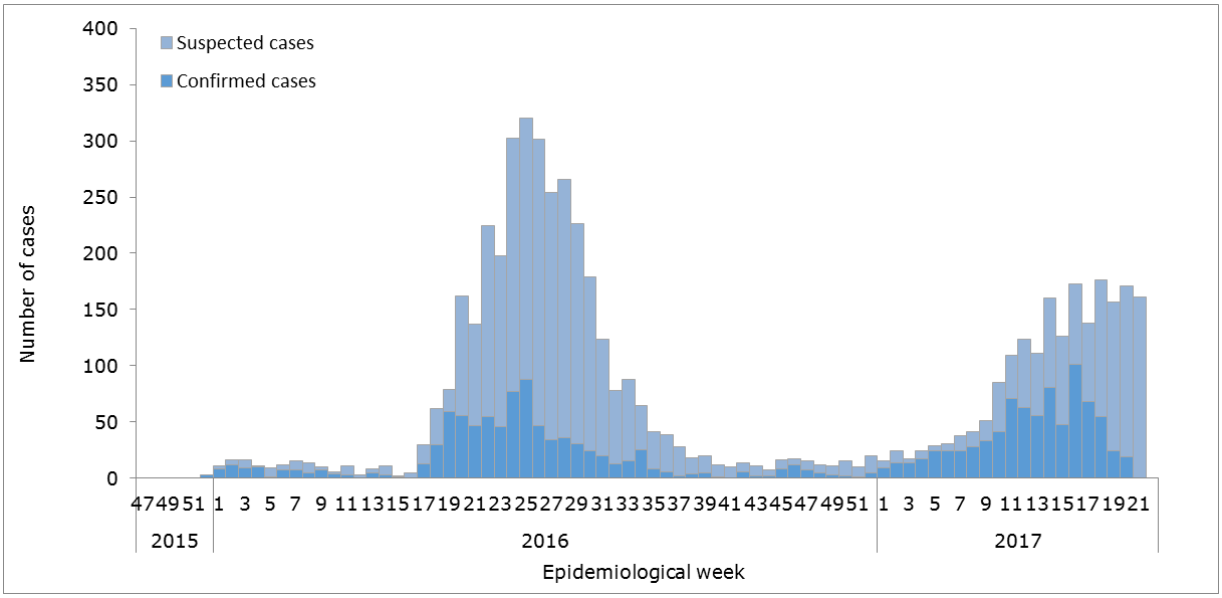
World Health Organization
REGIONAL OFFICE FOR THE Americas

# Zika-Epidemiological Report

# Ecuador

28 June 2017

**Figure 1.** Suspected and confirmed Zika cases by epidemiological week (EW). Ecuador. EW 47 of 2015 to EW 22 of 2017.




Source: Data provided by the Ecuador Ministry of Public Health to PAHO/WHO[1]

## FIRST AUTOCHTHONOUS VECTOR-BORNE CASES

In epidemiological week (EW) 2 of 2016, the Ecuador International Health Regulations (IHR) National Focal Point (NFP) notified PAHO/WHO of the detection of the first cases of autochthonous vector-borne transmission of Zika virus in residents of the cities of Guayaquil, Guayas Province and Portoviejo, Manabi Province. The cases were laboratory confirmed at the National Institute of Public Health and Research (INSPI).

## GEOGRAPHIC DISTRIBUTION

As of EW 23 of 2017, autochthonous cases have been laboratory-confirmed in 14 out of 24 provinces of Ecuador.[2] The highest Zika incidence rates were reported from the provinces of Esmeraldas, Guayas, Manabi, and Santo Domingo de los Tsáchilas. (**Figure 2**).

[1] Reported to PAHO/WHO from Ecuador International Health Regulation (IHR) National Focal Point (NFP) on 2 June 2017.
[2] Ecuador Ministry of Public Health. Vector Transmitted Diseases, Zika virus. EW 23 of 2017. Available at: http://www.salud.gob.ec/wp-content/uploads/2015/12/vv-GACETA-ZIKA_SE231.pdf

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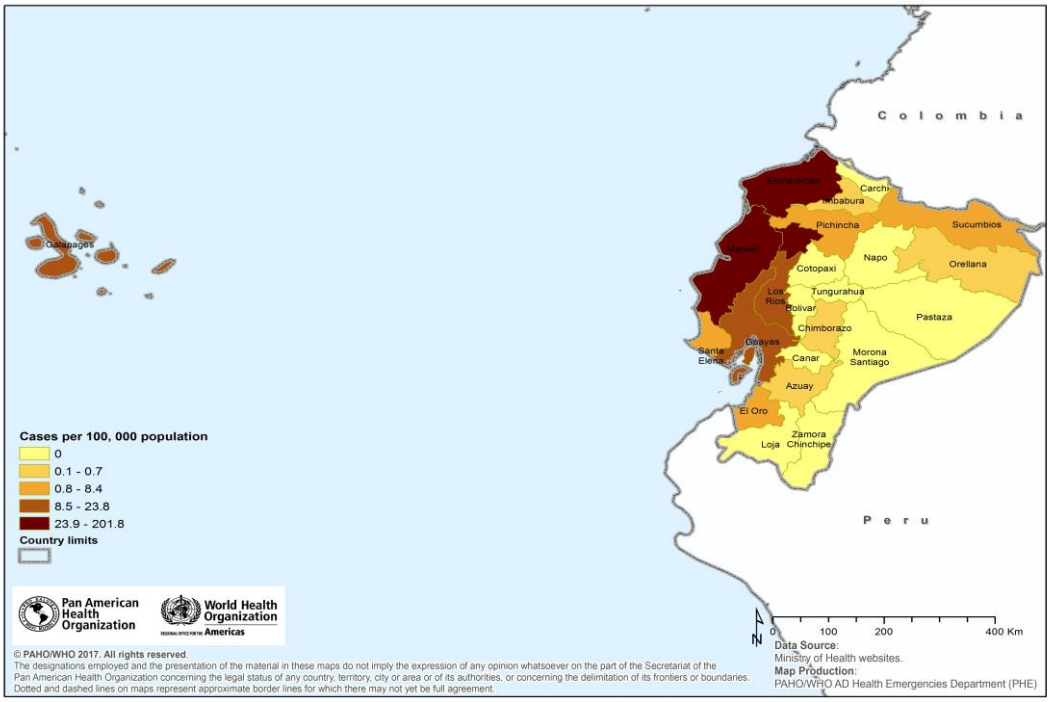
**Figure 2.** Laboratory-confirmed Zika cases per 100,000 population, by province. Ecuador. EW 1 of 2016 to EW 23 of 2017.




Source: Data published by the Ecuador Ministry of Public Health and reproduced by PAHO/WHO[2]

## TREND

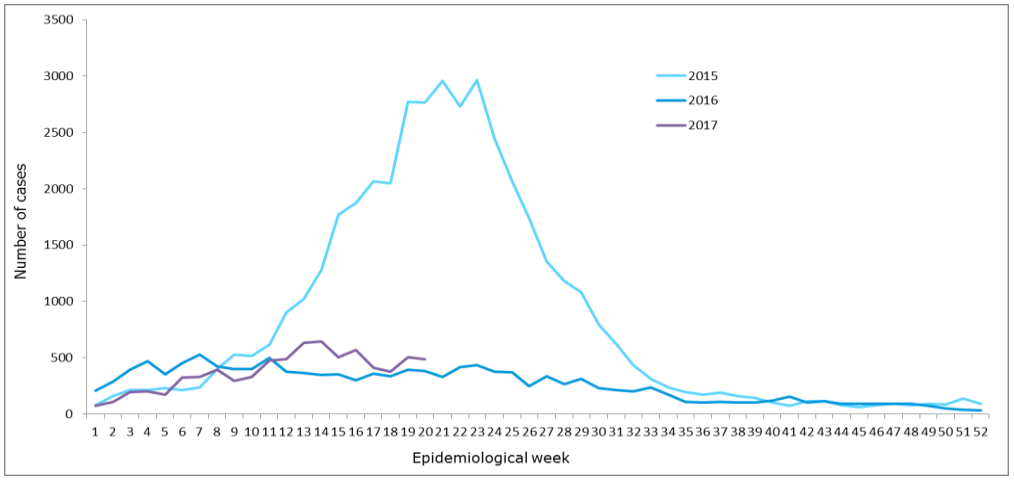
The number of reported Zika cases in Ecuador began to increase in EW 16 of 2016 and continued up until EW 25 of 2016, when a peak (n=320 cases) was observed (**Figure 1**). Since then, a decrease in cases was noted, followed by an increase in cases starting in EW 4 of 2017. In the last 8 weeks (EW 14 to 21 of 2017), the Ecuador Ministry of Public Health has reported a weekly average of 158 Zika cases.[1]

## CIRCULATION OF OTHER ARBOVIRUSES

Between EW 1 and EW 21 of 2017, a total of 8,012 confirmed dengue cases (49 cases per 100,000 population) have been reported. In 2016, a total of 14,150 confirmed dengue cases (87 cases per 100,000) was reported for the entire year.[3] As of EW 21 of 2017, the weekly dengue incidence trend is comparable to the trend for the same period in 2016 (**Figure 3**).

[3] PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Dengue and Severe Dengue (SD) in the Americas by Country. Available at: http://www.paho.org/hq/index.php?option=com_topics&view=readall&cid=3273&Itemid=40734&lang=en

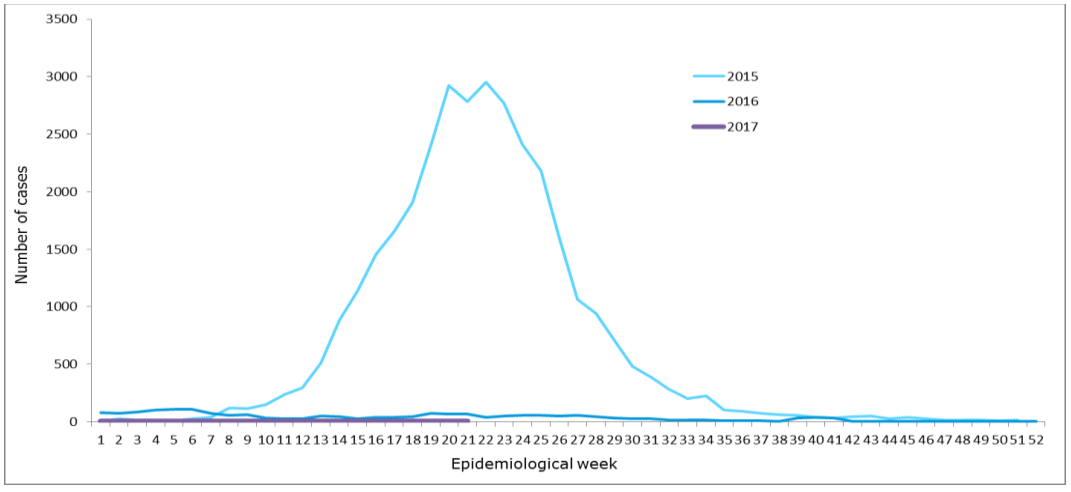
**Figure 3**. Suspected and Confirmed dengue cases by EW. Ecuador. 2015 to 2017 (as of EW 21 of 2017).




Source: Data published by the Ecuador Ministry of Public Health and reproduced by PAHO/WHO[4]

Between EW 1 and EW 21 of 2017, a total of 130 confirmed chikungunya cases (1 case per 100,000 population) have been reported.[5] In 2016, a total of 891 confirmed chikungunya cases were reported up to EW 37, which is notably less that the number of cases reported in 2015 for the same period (n=4,051), when a major outbreak occurred. As of EW 21 of 2017, the weekly chikungunya incidence trend is lower than the trend for the same period in the previous two years (**Figure 4**).[6]

**Figure 4.** Suspected and confirmed chikungunya cases by EW. Ecuador. 2015 to 2017 (as of EW 21 of 2017).




Source: Data published by the Ecuador Ministry of Public Health and reproduced by PAHO/WHO[6]

[4] Ecuador Ministry of Public Health. Vector Transmitted Diseases, Dengue. EW 21 of 2017. Available at: http://www.salud.gob.ec/wp-content/uploads/downloads/2017/06/2-DENGUE-SE_21_2017.pdf
[5] PAHO/WHO. Data, Maps and Statistics. 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
[6] Ecuador Ministry of Public Health. Vector Transmitted Diseases, Chikungunya. EW 21 of 2017. Available at: http://www.salud.gob.ec/wp-content/uploads/downloads/2017/06/1-CHIKUNGUNYA_SE-21_2017.pdf

## ZIKA VIRUS DISEASE IN PREGNANT WOMEN

As of EW 23 of 2017, a total of 660 confirmed cases of Zika virus disease have been registered among pregnant women, with the highest number of confirmed cases being reported from Manabi Province (234 cases).[2] Of the total cases, 130 were infected in the first trimester of pregnancy, 387 in the second trimester, and 143 in the third trimester (**Table 1**).

**Table 1.** Confirmed cases of Zika virus disease in pregnant women, by province and trimester of infection in Ecuador, as of EW 23 of 2017.

| Province | First Trimester | Second Trimester | Third Trimester | Total |
|---|---|---|---|---|
| **El Oro** | 8 | 23 | 3 | 34 |
| **Esmeraldas** | 7 | 19 | 1 | 27 |
| **Galapagos** | | 1 | | 1 |
| **Guayas** | 42 | 132 | 46 | 220 |
| **Los Rios** | 16 | 47 | 14 | 77 |
| **Manabi** | 47 | 126 | 61 | 234 |
| **Santa Elena** | 2 | 6 | 1 | 9 |
| **Santo Domingo de los Tsachilas** | 6 | 30 | 15 | 51 |
| **Sucumbios** | 2 | 3 | 2 | 7 |
| **Total** | 130 | 387 | 143 | 660 |

Source: Data published by Ecuador Ministry of Public Health and reproduced by PAHO/WHO[2]

## ZIKA COMPLICATIONS

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

As of EW 23 of 2017, no cases of Guillain-Barré syndrome (GBS) associated with the Zika virus infection have been reported by Ecuador health authorities. In EW 23 of 2017, the Ecuador Ministry of Public Health reported a case of encephalitis associated with Zika, which was notified in EW 22 of 2017 in the province of El Oro.[2]

### CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

As of EW 23 of 2017, five laboratory confirmed cases of congenital syndrome associated with Zika virus infection have been reported by Ecuador health authorities, including three in the province of Manabi and two in the province of Los Rios .[2]

### DEATHS AMONG ZIKA CASES

As of EW 23 of 2017, no deaths among Zika cases have been reported by Ecuador health authorities.

## NATIONAL ZIKA SURVEILLANCE GUIDELINES

The fourth edition of the Ecuador Zika national guidelines published on EW 9 of 2016 is available at:

http://www.salud.gob.ec/wp-content/uploads/2015/12/BOLETIN-NO.-4-ZIKA-1.pdf

The Ecuador Ministry of Public Health surveillance guidelines for neurological complications and autoimmune disease related to Zika virus are available at:

http://instituciones.msp.gob.ec/images/Documentos/Zika/Lineamientos/LINEAMIENTOS%20VIGILACIA%20DE%20COMPLICACIONES%20NEUROLOGICAS%20ZIKA.pdf

## LABORATORY CAPACITY

Laboratory confirmation is performed by the National Institute of Public Health and Research (INSPI) at the Ecuador Ministry of Public Health by molecular detection (real time RT-PCR) and serology (ELISA IgM detection).

## INFORMATION-SHARING

At the time of this report, the latest available Zika virus information shared by the Ecuador IHR NFP with PAHO/WHO was from EW 21 of 2017. In addition, the latest epidemiological bulletin published by the Ecuador Ministry of Health was from EW 23 of 2017.