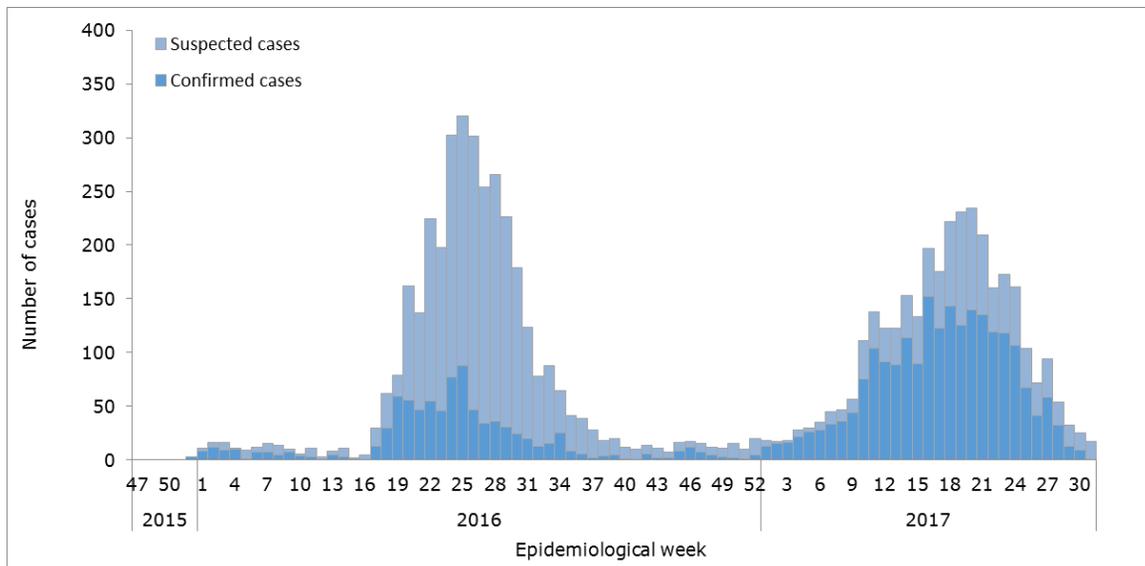


Zika-Epidemiological Report Ecuador

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Figure 1. Suspected and confirmed Zika cases by epidemiological week (EW). Ecuador. EW 47 of 2015 to EW 31 of 2017.



Source: Data provided by the Ecuador Ministry of Public Health to PAHO/WHO¹

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 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).

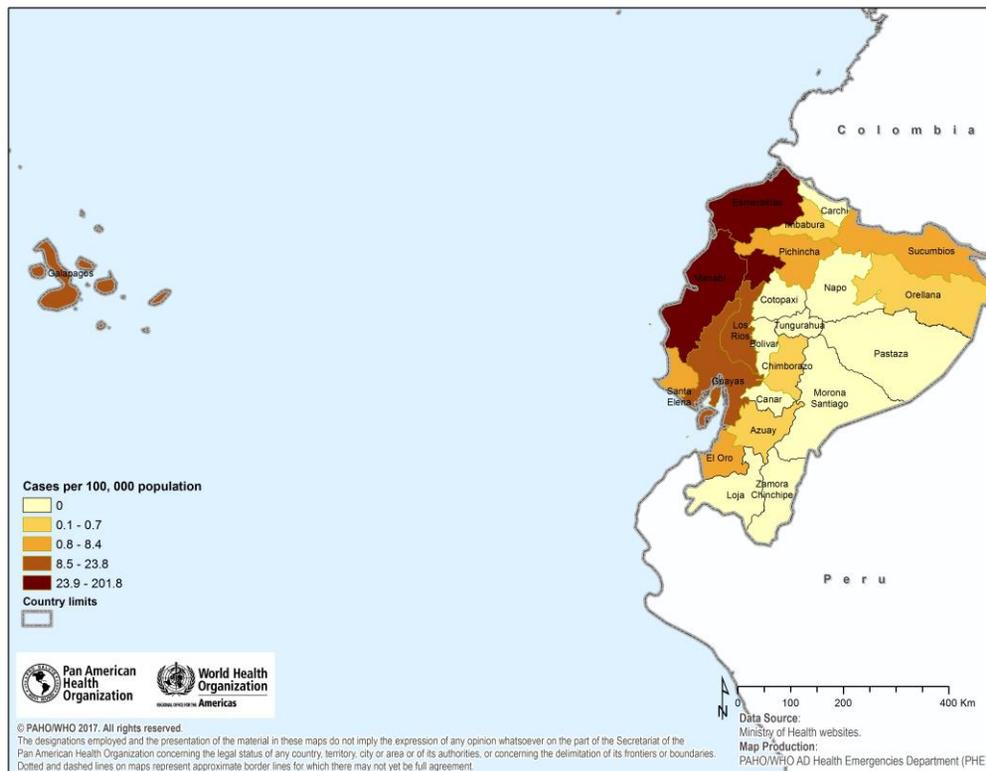
GEOGRAPHIC DISTRIBUTION

As of EW 32 of 2017, autochthonous cases have been laboratory-confirmed in 17 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 21 August 2017.

² Ecuador Ministry of Public Health. Vector Transmitted Diseases, Zika virus. EW 32 of 2017. Available at: http://www.salud.gob.ec/wp-content/uploads/2015/12/vvGACETA-ZIKA_SE-32.pdf

Figure 2. Reported Zika cases per 100,000 population, by province. Ecuador. EW 1 of 2016 to EW 32 of 2017.



Source: Data published by the Ecuador Ministry of Public Health and reproduced by PAHO/WHO²

TREND

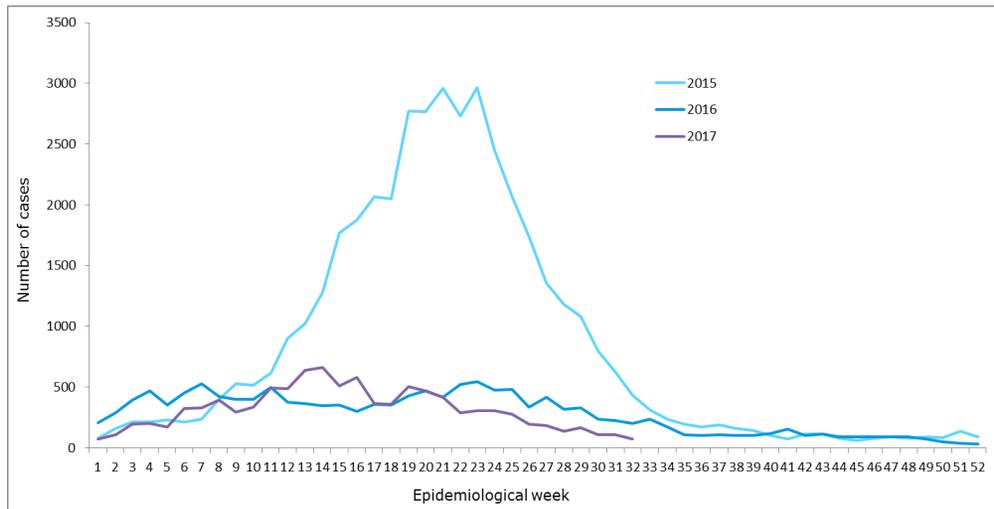
The number of reported Zika cases in Ecuador began to increase in EW 16 of 2016 and continued up until EW 25 of 2016, when a peak (n=320 cases) was observed (**Figure 1**). Since then, a decrease in cases was noted, followed by an increase in cases starting in EW 4 of 2017. In the last 8 reported weeks (EW 24 to 31 of 2017), the Ecuador Ministry of Public Health has reported a weekly average of 68 Zika cases.¹

CIRCULATION OF OTHER ARBOVIRUSES

Between EW 1 and EW 32 of 2017, a total of 10,198 confirmed dengue cases (63 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 32 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

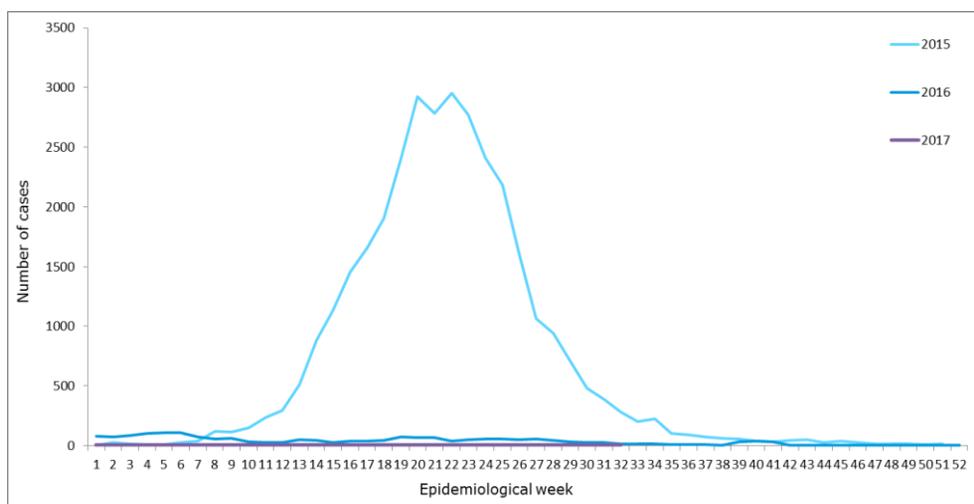
Figure 3. Suspected and confirmed dengue cases by EW. Ecuador. 2015 to 2017 (as of EW 32 of 2017).



Source: Data published by the Ecuador Ministry of Public Health and reproduced by PAHO/WHO⁴

Between EW 1 and EW 35 of 2017, a total of 180 confirmed chikungunya have been reported.⁶ In 2016, a total of 891 confirmed chikungunya cases were reported up to EW 37, which is notably less than the number of cases reported in 2015 for the same period (n=4,051), when a major outbreak occurred. As of EW 32 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 32 of 2017).



Source: Data published by the Ecuador Ministry of Public Health and reproduced by PAHO/WHO⁵

⁴ Ecuador Ministry of Public Health. Vector Transmitted Diseases, Dengue. EW 32 of 2017. Available at: http://www.salud.gob.ec/wp-content/uploads/2013/02/vvDENGUE-SE_32_2017.pdf

⁵ Ecuador Ministry of Public Health. Vector Transmitted Diseases, Chikungunya. EW 32 of 2017. Available at: http://www.salud.gob.ec/wp-content/uploads/2014/09/vvCHIKUNGUNYA_SE-32_2017.pdf

ZIKA VIRUS DISEASE IN PREGNANT WOMEN

As of EW 32 of 2017, a total of 912 confirmed cases of Zika virus disease have been reported among pregnant women, with the highest number of confirmed cases being reported from Guayas Province (329 cases).² Of the total cases, 176 were infected in the first trimester of pregnancy, 531 in the second trimester, and 205 in the third trimester (**Table 1**).

Table 1. Confirmed Zika case in pregnant women, by province and trimester of infection in Ecuador, as of EW 32 of 2017.

Province	First Trimester	Second Trimester	Third Trimester	Total
El Oro	10	29	3	42
Esmeraldas	8	19	2	29
Bolivar	0	0	1	1
Canar	0	1	0	1
Galapagos	0	1	0	1
Guayas	67	191	71	329
Los Rios	16	48	15	79
Manabi	58	167	75	300
Pichincha	0	1	0	1
Santa Elena	2	12	3	17
Santo Domingo de los Tsachilas	13	59	33	105
Sucumbios	2	3	2	7
Total	176	531	205	912

Source: Data published by Ecuador Ministry of Public Health and reproduced by PAHO/WHO²

ZIKA COMPLICATIONS

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

As of EW 32 of 2017, two cases of Guillain-Barré syndrome (GBS) associated with the Zika virus infection have been reported by Ecuador health authorities.² As of EW 32 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 32 of 2017, seven 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, two in the province of Los Rios, one in Guayas, and one in Santo Domingo de los Tsachilas.²

DEATHS AMONG ZIKA CASES

As of EW 35 of 2017, no deaths among Zika cases have been reported by Ecuador health authorities to PAHO/WHO.

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%20VIGILANCIA%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 31 of 2017. In addition, the latest epidemiological bulletin published by the Ecuador Ministry of Health was from EW 32 of 2017.