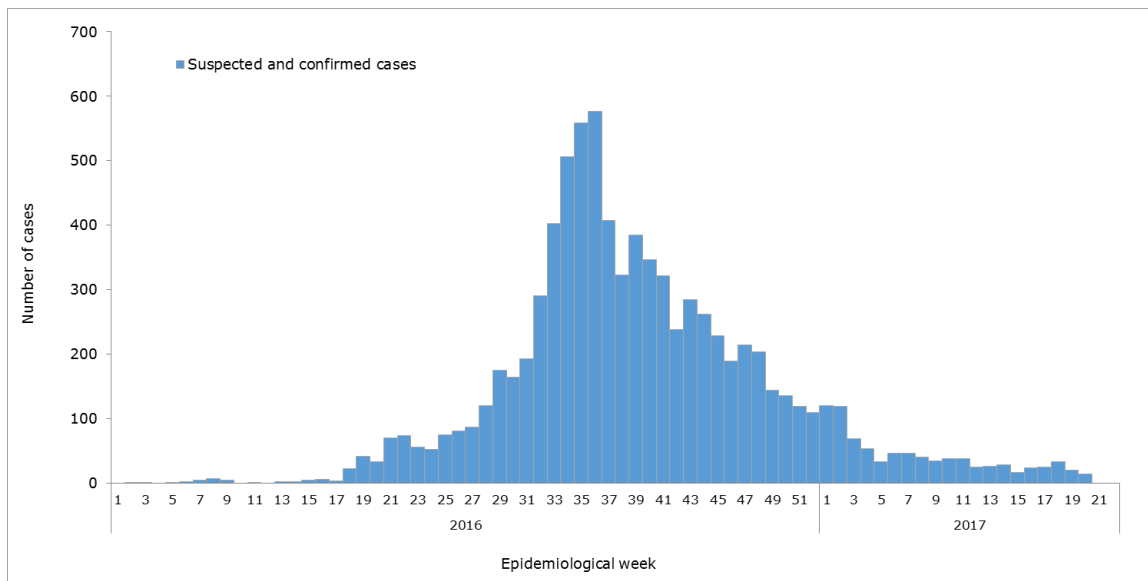


Zika-Epidemiological Report Costa Rica

29 June 2017

Figure 1. Suspected and confirmed Zika cases. Costa Rica. EW 1 of 2016 to EW 22 of 2017.



Source: Data published by the Costa Rica Ministry of Health and reproduced by PAHO/WHO¹

FIRST AUTOCHTHONOUS VECTOR-BORNE CASES

In epidemiological week (EW) 4 of 2016, the detection of the first autochthonous vector-borne transmission of Zika virus was reported in Costa Rica. The first confirmed autochthonous cases of Zika virus disease was in a pregnant woman, resident of Guanacaste province. The sample was confirmed by the national reference laboratory on EW 8 of 2016.²

GEOGRAPHIC DISTRIBUTION

As of EW 22 of 2017, a total of 1,824 confirmed Zika cases have been reported in Costa Rica.^{3,4} Between EW 1 and EW 22 of 2017, the cantons reporting the highest incidence rates have been

¹ Costa Rica Ministry of Health. Health Surveillance. Health Situation Analysis of Zika. ZIKA 2016. 26 May 2017. Available at: <https://www.ministeriodesalud.go.cr/index.php/vigilancia-de-la-salud/analisis-de-situacion-de-salud>

² Official Website of the President of the Republic of Costa Rica. Health Declares Sanitary Emergency in Nicoya for Zika virus. 22 February 2016. Available at: <http://presidencia.go.cr/prensa/comunicados/salud-declara-emergencia-sanitaria-en-nicoya-por-virus-del-zika/>

³ Costa Rica Ministry of Health. Epidemiological Bulletin. EW 22 of 2017. Available at: <https://www.ministeriodesalud.go.cr/index.php/biblioteca-de-archivos/vigilancia-de-la-salud/analisis-de-situacion-de-salud/3310-boletin-epidemiologico-no-22-2017-zika-chikungunya-y-dengue/file>

⁴ Costa Rica Ministry of Health. Epidemiological Bulletin. EW 52 of 2016. Available at: <https://www.ministeriodesalud.go.cr/index.php/biblioteca-de-archivos/3189-resumen-de-la-situacion-en-america-del-zika-chikungunya-y-dengue-para-el-ano-2016/file>

Siquirres (263 cases per 100,000 population), Orotina (237 cases per 100,000 population), and Matina (208 cases per 100,000 population).²

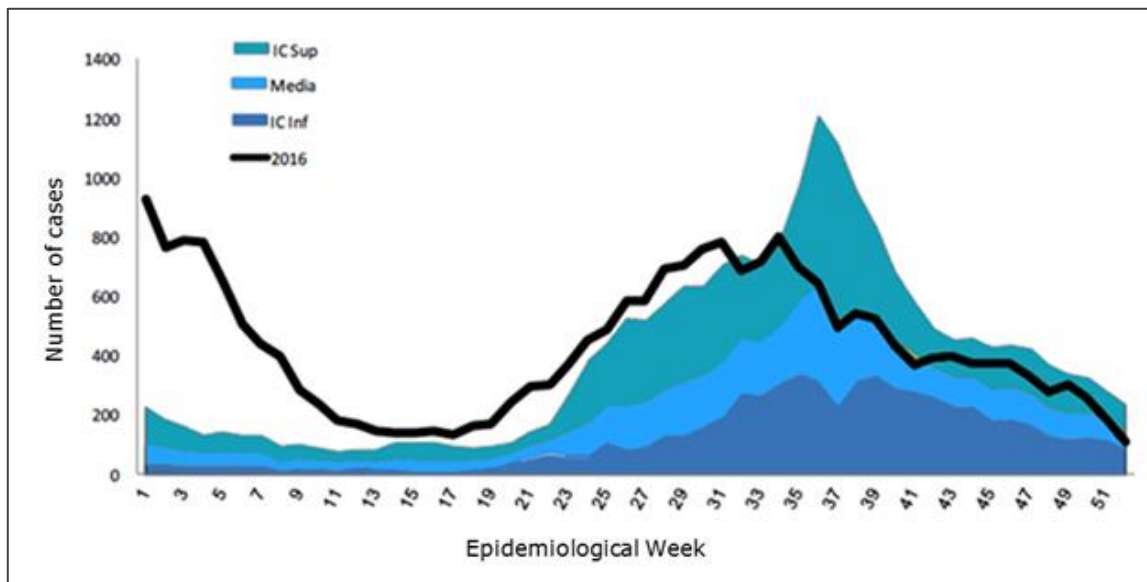
TREND

Since the emergence of Zika in Costa Rica, weekly numbers of suspected and confirmed cases increased steadily up to EW 36 of 2016, after which a decreasing trend has been observed (**Figure 1**). During 2017, transmission has continued, although with less intensity. In the last 8 weeks (EW 13 of 2017 to EW 20 of 2017), an average of 23 Zika cases were reported per week.¹

CIRCULATION OF OTHER ARBOVIRUSES

From EW 1 to EW 22 of 2017, a total of 1,702 cases of dengue have been reported in Costa Rica,³ which is a decrease compared with the 8,193 cases reported in the same period in 2016. Since the beginning of 2016, up to EW 31 of 2016, reported dengue cases were above the national threshold.⁴ From EW 32, a decreasing trend of dengue cases is observed (**Figure 2**). Between 2016 and 2017, DENV-1, DENV-2, and DENV-3 have circulated in Costa Rica.⁵

Figure 2. Dengue endemic channel. Costa Rica. EW 1 to EW 52 of 2016.



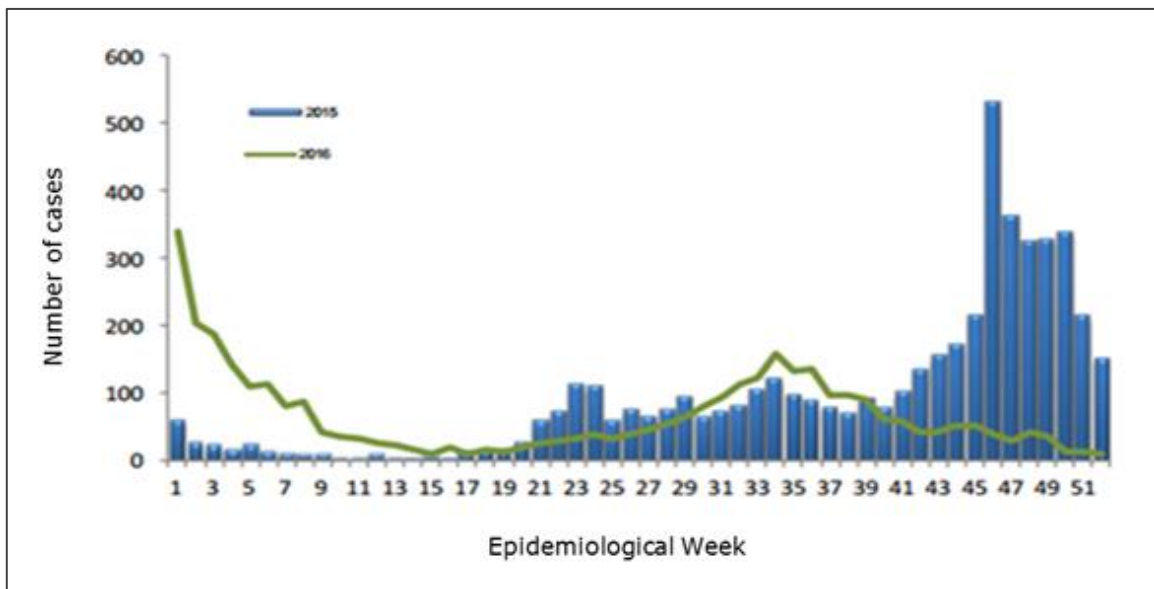
Source: Data published by the Costa Rica Ministry of Health and reproduced by PAHO/WHO⁴

With regard to chikungunya, between EW 1 and EW 22 of 2017, a total of 163 cases have been identified in Costa Rica,³ which represents a decrease compared with the 1,676 cases reported over the same period in 2016.

In 2016, up to EW 16, weekly numbers of chikungunya cases was higher than those reported during the same period of 2015.⁴ From EW 40 to EW 52 of 2016, the number of chikungunya cases was lower than those reported during the same period of 2015 (**Figure 3**).

⁵ 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. Number of chikungunya cases. Costa Rica. 2015 and 2016 (up to EW 52).



Source: Data published by the Costa Rica Ministry of Health and reproduced by PAHO/WHO⁴

ZIKA VIRUS DISEASE IN PREGNANT WOMEN

As of EW 22 of 2017, a total of 177 confirmed cases of Zika virus infection in pregnant women have been reported by the Costa Rica Ministry of Health.³

ZIKA COMPLICATIONS

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

As of EW 22 of 2017, two confirmed case of Guillain-Barré syndrome (GBS) associated with Zika virus infection has been reported by the Costa Rica Ministry of Health.³

CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

As of EW 22 of 2017, six confirmed cases of congenital syndrome associated with Zika virus infection have been reported by the Costa Rica Ministry of Health.³ The mother of one congenital syndrome case reported being in Nicaragua at the beginning of her pregnancy, but did not recall experiencing symptoms compatible with Zika virus infection.⁶

DEATHS AMONG ZIKA CASES

As of EW 22 of 2017, no deaths among Zika cases have been reported by the Costa Rica Ministry of Health.

NATIONAL ZIKA SURVEILLANCE GUIDELINES

The Costa Rica Ministry of Health published the national guidelines for Zika disease and its complication on 27 December 2016. The Guidelines are available at:

⁶ Reported to PAHO/WHO from the Costa Rica International Health Regulation (IHR) National Focal Point (NFP) on 23 August 2016

<https://www.ministeriodesalud.go.cr/index.php/vigilancia-de-la-salud/normas-protocolos-y-guias/3186-protocolo-de-vigilancia-de-enfermedad-por-virus-zika-y-sus-principales-complicaciones/file>

LABORATORY CAPACITY

The diagnosis of Zika virus by molecular detection (real time RT-PCR) is performed by the *Instituto Costarricense de Investigación y Enseñanza en Nutrición y Salud* (INCIENSA) at the Ministry of Health of Costa Rica. Currently, the laboratory is also implementing serology diagnosis based on ELISA IgM detection as well as the PCR multiplex system from the United States Centers for Disease Control and Prevention (CDC) (Trioplex).⁷

INFORMATION-SHARING

Information on Zika virus is available through the “Health Situation Analysis of Zika” report published by the Costa Rica Ministry of Health on a weekly basis. At the time of this report, the latest available Zika information was from EW 22 of 2017. In addition, epidemiological data by EW is published by the Costa Rica Ministry of Health and the latest available Zika information was from EW 20 of 2017.

⁷ Costa Rica Ministry of Health. National guidelines for the epidemiological and laboratory surveillance of Zika virus disease and its complications. 27 December 2016. Available at: <https://www.ministeriodesalud.go.cr/index.php/vigilancia-de-la-salud/normas-protocolos-y-guias/3186-protocolo-de-vigilancia-de-enfermedad-por-virus-zika-y-sus-principales-complicaciones/file>