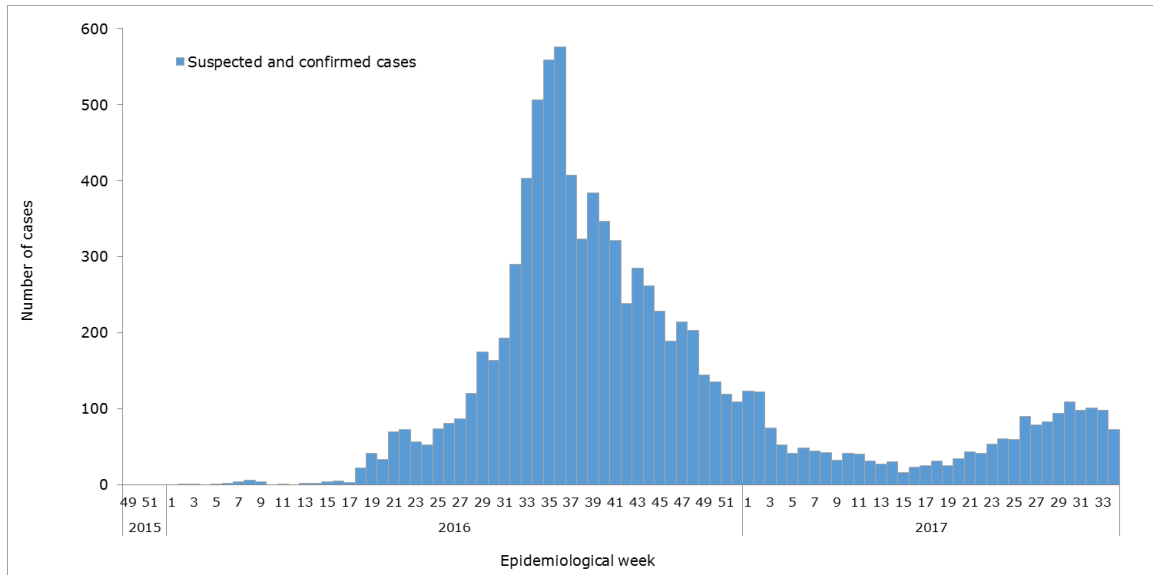


Zika-Epidemiological Report Costa Rica

25 September 2017

Figure 1. Suspected and confirmed Zika cases by epidemiological week (EW). Costa Rica. EW 49 of 2015 to EW 34 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 was reported in Costa Rica. The first confirmed autochthonous cases of Zika 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 33 of 2017, a total of 1,920 confirmed Zika cases have been reported in Costa Rica.^{3,4} Between EW 1 and EW 33 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 2017. 5 September 2017. Number of cases includes suspected and confirmed cases. No disaggregated data are available. 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 33 of 2017. Available at: <https://www.ministeriodesalud.go.cr/index.php/vigilancia-de-la-salud/boletines/3489-boletin-epidemiologico-no-33-2017-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>

Matina (1,105 cases per 100,000 population) Montes de Oro (619 cases per 100,000 population), Guacimo (520 cases per 100,000 population).²

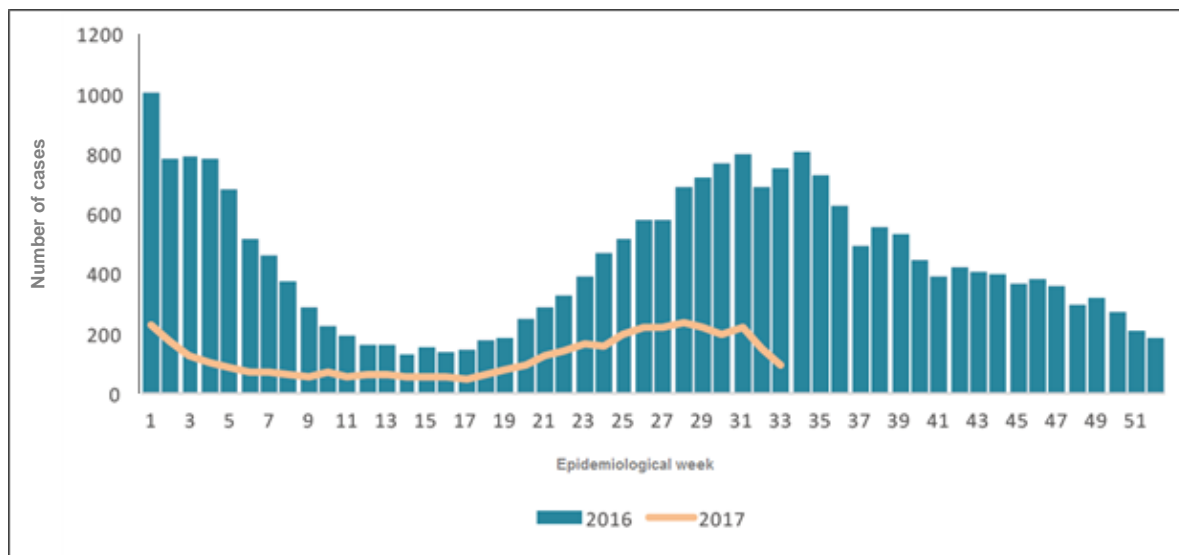
TREND

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 continued and an increase in the incidence of Zika cases was observed between EW 19 and 33 of 2017. In the last 8 weeks (EW 27 of 2017 to EW 34 of 2017), an average of 92 Zika cases were reported per week.¹

CIRCULATION OF OTHER ARBOVIRUSES

From EW 1 to EW 33 of 2017, a total of 3,833 cases of dengue have been reported in Costa Rica,³ which is a decrease compared with the 13,699 cases reported in the same period in 2016 (**Figure 2**). From EW 32, a decreasing trend of dengue cases is observed. Between 2016 and 2017, DENV-1, DENV-2, and DENV-3 have circulated in Costa Rica.⁵

Figure 2. Suspected and confirmed dengue cases by EW. Costa Rica. 2016 – 2017 (as of EW 33).



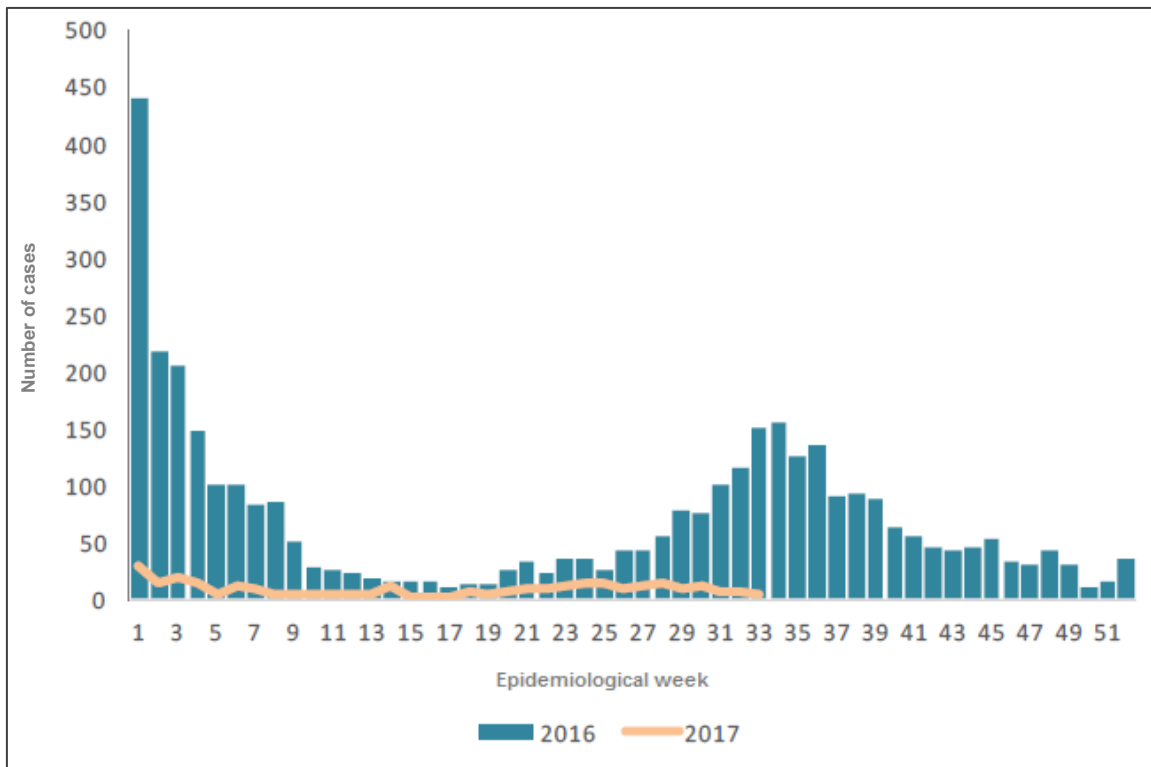
Source: Data published by the Costa Rica Ministry of Health and reproduced by PAHO/WHO⁴

With regard to chikungunya, between EW 1 and EW 33 of 2017, a total of 295 cases have been identified in Costa Rica,³ which represents a decrease compared with the 2,432 cases reported over the same period in 2016.

In 2017, weekly numbers of chikungunya cases were consistently lower than those reported during 2017 (**Figure 3**). From EW 1 to EW 33 of 2017, a total of 295 cases have been reported, which is significantly lower than the 2,432 cases reported during the same period in 2016.⁴

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. Suspected and confirmed chikungunya cases. Costa Rica. 2016 – 2017 (as of EW 33).



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

ZIKA VIRUS DISEASE IN PREGNANT WOMEN

As of EW 33 of 2017, a total of 210 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 33 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 33 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

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

DEATHS AMONG ZIKA CASES

As of EW 35 of 2017, no deaths among Zika cases have been reported by the Costa Rica Ministry of Health to PAHO/WHO.

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:

<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>

The Costa Rica Ministry of Health published additional national guidelines for the management of pregnant women and newborns in relation to Zika virus infection in December 2016. The guidelines are available at:

<https://www.ministeriodesalud.go.cr/index.php/biblioteca-de-archivos/3054-lineamientos-nacionales-para-el-abordaje-integral-de-la-mujer-embarazada-y-el-recien-nacido-relacionado-con-la-infeccion-del-zika/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 34 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 33 of 2017.