First Autochthonous Vector-Borne Cases

In epidemiological week (EW) 41 of 2015, Colombia health authorities reported to PAHO/WHO, the detection of the first autochthonous vector-borne cases of Zika virus in the Bolivar Department. Nine cases of Zika virus infection were preliminarily confirmed by the national reference laboratory at the Colombia National Institute of Health, re-tested and confirmed by the United States Centers for Disease Control and Prevention (CDC).

Geographic Distribution

As of EW 33 of 2017, 35 of 37 territorial entities in Colombia have reported confirmed cases of Zika virus infection. The territorial entities of Vaupés and Bogotá have not reported any confirmed cases of Zika to date. Between EW 32 of 2015 and EW 33 of 2017, the highest cumulative incidence rate of Zika (in descending order) has been reported from the departments of Archipelago de San Andres, Guainia Caqueta, Arauca, Choco and Huila (Figure 2).²

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¹ Data reported to PAHO/WHO by the Colombia International Health Regulations (IHR) National Focal Point (NFP) on 28 August 2017.
² Colombia National Institute of Health. Epidemiological Bulletin. EW 33 of 2017. Available at: http://www.ins.gov.co/boletin-epidemiologico/Boletn%20Epidemiologico/2017%20Bolet%C3%ADn%20epidemiol%C3%B3gico%20semana%2033.pdf
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TREND

In 2017, a total of 1,658 cases of Zika were reported up to EW 32, representing a 55 fold decrease in cases compared to the same period in 2016.\textsuperscript{1} The number of reported Zika cases in Colombia began to increase in EW 32 of 2015 and continued to increase until EW 5 of 2016 (Figure 1). There has been a decline in the number of cases since EW 6 of 2016 with an average of 34 suspected and confirmed cases in the last 8 weeks (EW 25 to EW 32 of 2017).\textsuperscript{1} The epidemiological curve is produced based on data provided to PAHO/WHO by the Colombia Ministry of Health and Social Protection up to EW 32 of 2017.

Between EW 1 and 28 of 2017, 55.4\% of the reported cases were among females. With regards to age group, the highest percentage of cases was reported among 20-24 year-old (13.5\%).\textsuperscript{3}

\textsuperscript{1} Colombia National Institute of Health. Event report – Zika virus disease report up to Epidemiological period VII. http://www.ins.gov.co/lneas-de-accion/Subdireccion-Vigilancia/Informe%20de%20Evento%20EpidemiologicoZIKA%20PF%20VII%202017.pdf

\textsuperscript{3} Colombia National Institute of Health. Event report – Zika virus disease report up to Epidemiological period VII.
CIRCULATION OF OTHER ARBOVIRUSES

Similar to Zika, a decrease in dengue and chikungunya cases have been observed during 2017 compared to reported cases in 2016. In 2017, a total of 18,963 dengue cases have been reported up to EW 33, representing a 77% reduction in cases compared to the same period in 2016 (Figure 3). Similarly, a total of 797 chikungunya cases have been reported up to EW 32 in 2017, representing a 96% reduction the cases compared to the same period in 2016 (Figure 4).

**Figure 3.** National dengue endemic channel. Colombia. EW 1 to EW 33 of 2017.

![Figure 3](image_url)

Source: Data published by the Colombia National Institute of Health and reproduced by PAHO/WHO

**Figure 4.** Cases of Chikungunya. Colombia. EW 1 to EW 52 of 2016 and EW 1 to EW 32 of 2017.

![Figure 4](image_url)

Source: Data published by the Colombia National Institute of Health and reproduced by PAHO/WHO

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ZIKA VIRUS DISEASE IN PREGNANT WOMEN

The Colombian National Institute of Health is conducting surveillance for pregnant women with suspected Zika virus disease. Since the beginning of the outbreak up to EW 33 of 2017, there have been a total of 19,993 pregnant women with suspected Zika virus disease reported in the country, of which 6,365 have been laboratory-confirmed with Zika virus infection.2,6

ZIKA COMPLICATIONS

ZIKA VIRUS-ASSOCIATED GUILLAIN-BARRÉ SYNDROME (GBS)

Between EW 42 of 2015 and EW 33 of 2017, Colombia reported 751 cases of neurological syndrome in persons with previous history of symptoms consistent with Zika virus disease.2,4 Among those patients, 62% (462 cases) have been classified as Guillain-Barré syndrome (GBS) cases. The epidemic curve of the neurological syndrome and Zika is available as of EW 30 of 2017 and shows a similar distribution by EW as the epidemic curve for cases of Zika virus disease (Figure 5).2

Figure 5. Suspected and confirmed cases of Zika and neurological syndrome. Colombia. EW 27 of 2015 to EW 32 of 2017.

Updated information on distribution of Zika cases by sex and group of age is no available.

CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

Between EW 1 of 2016 and EW 33 of 2017, a total of 1,415 microcephaly and other congenital defects of the Central Nervous System cases have been reported in Colombia.2 Of the total cases notified, 196 have been laboratory-confirmed for association with Zika virus infection, 447 cases

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have been discarded, 213 do not correspond to microcephaly nor other congenital defects of the Central Nervous System, and 559 remain under investigation.\textsuperscript{2,7}

In 2016, the number of microcephaly cases showed an increasing trend reaching a peak in EW 28 (\textbf{Figure 7}).\textsuperscript{8} While the number of cases gradually decreased since, the trend still represented a higher number of cases when compared to the same period in 2014 and 2015.

\textbf{Figure 7.} Microcephaly cases by EW. Colombia. 2014 to EW 3 of 2017.

\begin{center}
\includegraphics[width=\textwidth]{microcephaly_cases.png}
\end{center}

Source: Data provided by the Colombia Ministry of Health and Social Protection \textsuperscript{8} and reproduced by PAHO/WHO

\section*{DEATHS AMONG ZIKA CASES}

As of EW 35 of 2017, no deaths among Zika cases were officially reported by the Colombia Ministry of Health to PAHO/WHO.\textsuperscript{1}

\section*{NATIONAL ZIKA SURVEILLANCE GUIDELINES}

The Colombia National Institute of Health surveillance and notification guidelines for Zika virus is available at: http://www.ins.gov.co/Noticias/Paginas/Zika.aspx#.WLSpD9IrJpj

\textsuperscript{7} On 16 December 2016, Colombia’s Instituto Nacional de Salud (INS) and the Colombia Ministry of Health and Social Protection in collaboration the U.S. Centers for Disease Control and Prevention (CDC) published a Morbidity and Mortality Weekly Report (MMWR) titled “Preliminary Report of Microcephaly Potentially Associated with Zika Virus Infection During Pregnancy — Colombia, January–November 2016. According to the article, between EW 5 and 45 of 2016, a total of 476 microcephaly cases were reported in Colombia, compared with 110 cases reported during the same period in 2015. Of the 476 microcephaly cases, a total of 306 (64\%) were tested for Zika virus infection; 147 (48\%) had laboratory evidence of Zika virus infection by RT-PCR or immunohistochemistry, and five of six tested had serologic evidence of infection by MAC-ELISA. Cuevas EL, Tong VT, Rozo N, et al. Preliminary Report of Microcephaly Potentially Associated with Zika Virus Infection During Pregnancy — Colombia, January–November 2016. MMWR Morb Mortal Wkly Rep 2016;65:1409–1413. DOI: http://dx.doi.org/10.15585/mmwr.mm6549e1.

\textsuperscript{8} Data reported to PAHO/WHO by the Colombia Ministry of Health and Social Protection on 27 February 2017.
The Colombia Ministry of Health guidelines for clinical management of congenital anomalies in fetuses associated with Zika virus during pregnancy are available at:


The Colombia National Institute of Health surveillance guidelines were implemented on 14 October 2015. More information is available at:

http://www.ins.gov.co/Noticias/ZIKA/Circular%20Ext%20043%202015%20Zika.pdf

Guidelines for comprehensive clinical care of patients with Zika virus infection are available at:


Guidelines for the detection and comprehensive clinical care of guillain-barré syndrome and other neurological syndrome cases are available at:


**LABORATORY CAPACITY**

The diagnosis of Zika virus is centralized at the INS. The Virology laboratory has capacity for viral detection in different types of samples, including tissues for diagnosis in fatal cases. The INS is currently implementing the PCR multiplex system from the U.S. CDC (Trioplex) and the ELISA IgM for Zika virus.

**INFORMATION-SHARING**

The Colombia International Health Regulations (IHR) National Focal Point (NFP) has been sharing information with PAHO/WHO. Additionally, the Epidemiological Bulletin is published online by the Colombia National Institute of Health on a weekly basis. At the time of this report, the latest information shared with PAHO/WHO was from EW 32 of 2017, while the latest available information published online by the Colombia National Institute of Health was from EW 33 of 2017.