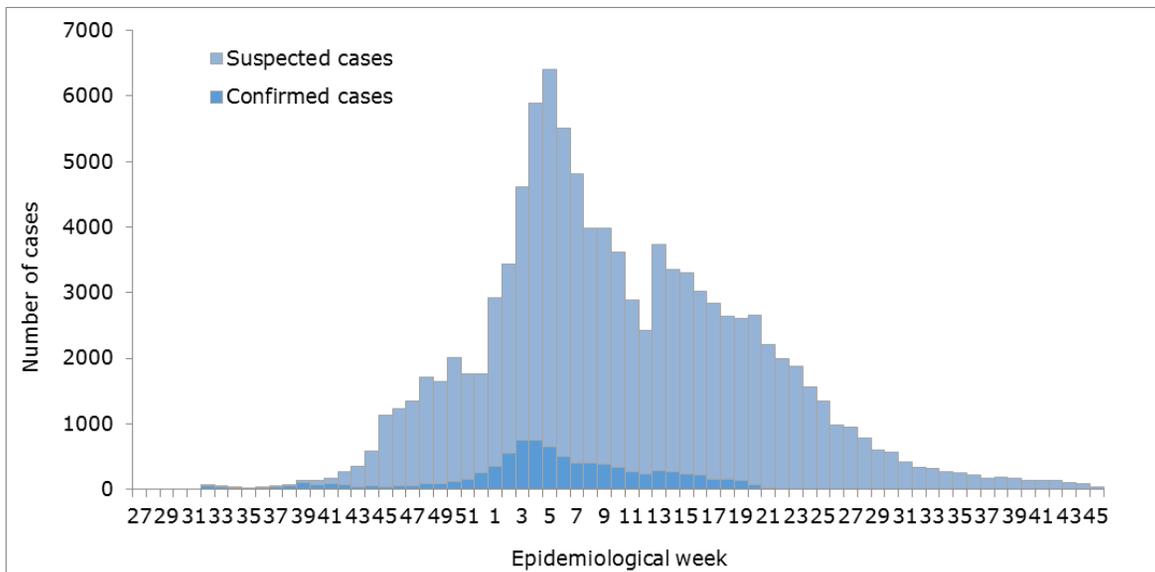


Zika-Epidemiological Report Colombia

21 December 2016

Figure 1. Suspected and confirmed Zika cases by epidemiological week (EW). Colombia. EW 27 of 2015 to EW 45 of 2016.



Source: Data provided by the Colombia Ministry of Health and Social Protection and reproduced by PAHO/WHO¹

FIRST AUTOCHTHONOUS VECTOR-BORNE CASES

In epidemiological week (EW) 41 of 2015, Colombia health authorities informed PAHO/WHO of 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 49 of 2016, 36 of 37 territorial entities in Colombia have reported confirmed cases of Zika virus infection. Approximately more than half of the total confirmed and suspected cases have been reported from the departments of Valle del Cauca, Norte Santander, Santander, Tolima, and Huila.²

¹ Data reported to PAHO/WHO by the Colombia Ministry of Health and Social Protection on 22 November 2016.

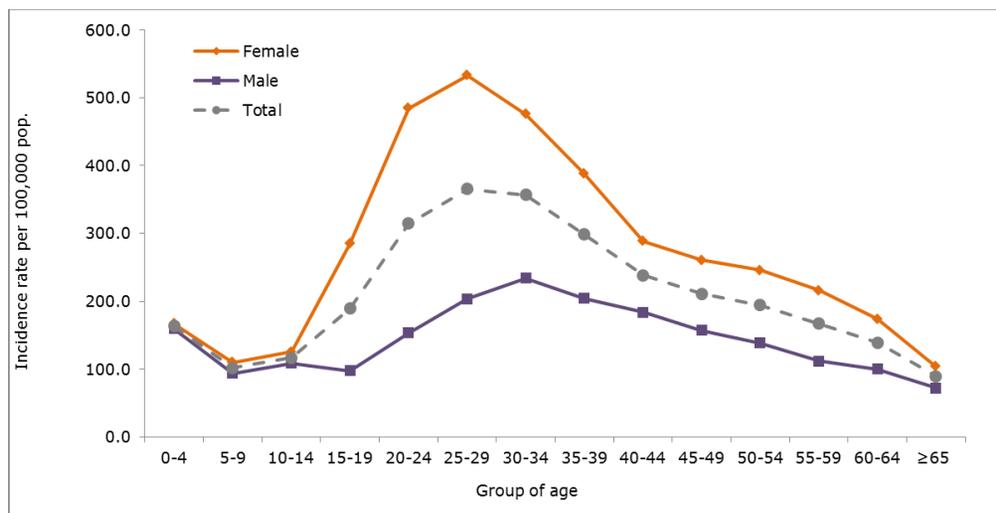
² Colombia National Institute of Health. Epidemiological Bulletin. EW 49 of 2016. Available at: <http://www.ins.gov.co/boletin-epidemiologico/Boletn%20Epidemiolgico/2016%20Boletn%C3%ADn%20epidemiol%C3%B3gico%20semana%2049.pdf>

TREND

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 steady decline in the number of cases between EW 6 and EW 45 of 2016.³ An average of 127 suspected cases per week has been reported in the last eight weeks (EW 37 to EW 45). The epidemiological curve is produced based on data provided to PAHO/WHO by the Colombia Ministry of Health and Social Protection up to EW 45. The Colombia National Institute of Health's (Instituto Nacional de Salud, or INS by its acronym in Spanish) latest epidemiological bulletin also provided an epidemiological curve up to EW 49, and shows a similar trend with Zika cases declining between EW 6 and EW 49 of 2016.²

Incidence rates of Zika are higher in females than in males (**Figure 2**). Irrespective of gender, incidence is highest among those aged 20 to 34 years.²

Figure 2. Incidence rate of suspected and confirmed Zika cases per 100,000 population by gender and age-group. Colombia, EW 32 of 2015 to EW 38 of 2016.



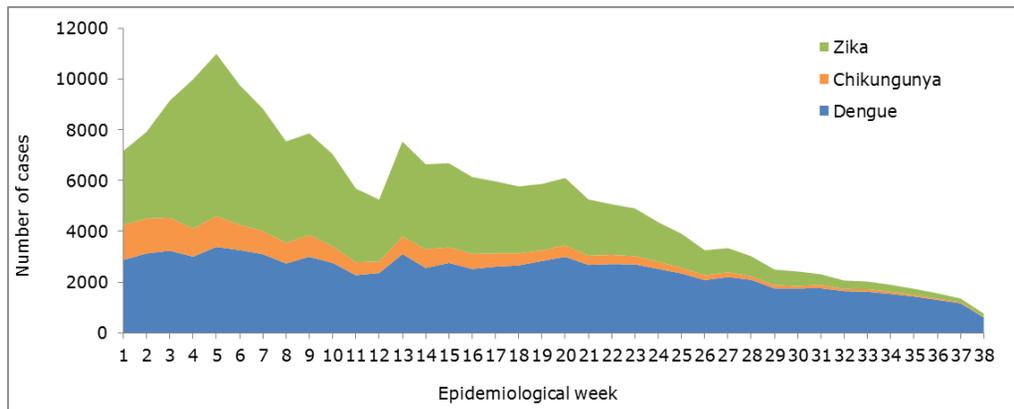
Source: Data provided by the Colombia Ministry of Health and Social Protection and reproduced by PAHO/WHO

CIRCULATION OF OTHER ARBOVIRUSES

In 2016, dengue and chikungunya show a similar pattern of transmission with a gradual declining trend. An average of 1,212 cases of dengue have been reported between EW 34 and EW 38 compared to the average of 55 chikungunya cases reported for the same period (**Figure 3**).³

³ Reported to PAHO/WHO by the Colombia Ministry of Health and Social Protection on 28 October 2016.

Figure 3. Cases of chikungunya, dengue and Zika. Colombia. EW 1 to EW 38 of 2016.



Source: Data provided by the Colombia Ministry of Health and Social Protection and reproduced by PAHO/WHO

ZIKA VIRUS DISEASE IN PREGNANT WOMEN

The Colombian National Institute of Health is conducting surveillance for pregnant women with suspected Zika virus disease. As of EW 49 of 2016, there have been a total of 19,499 pregnant women with suspected Zika virus disease reported in the country, of which 5,882 have been laboratory-confirmed with Zika virus infection.¹

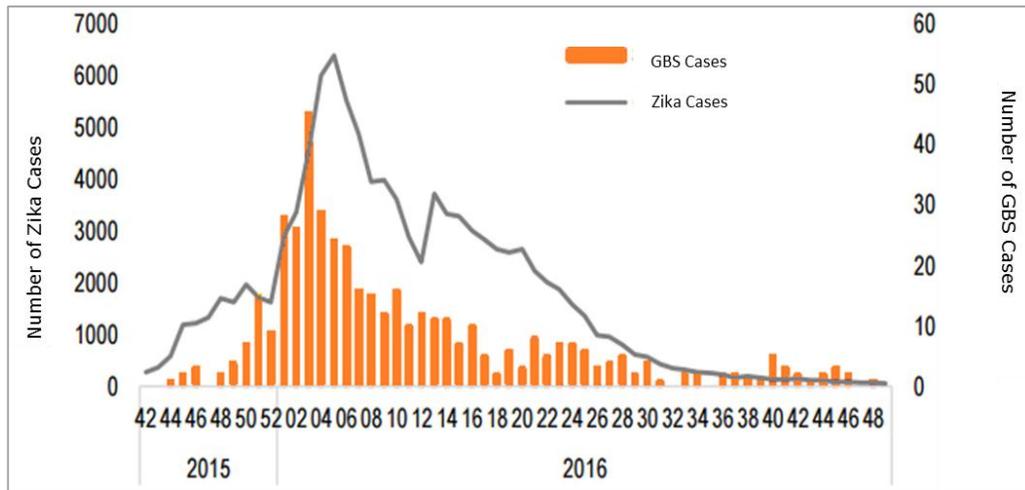
Among the 19,443 pregnant women with suspected and confirmed Zika virus disease (reported since the beginning of the outbreak and up to EW 45 of 2016) there were 16,945 women who completed their pregnancies. Majority of the 16,945 women who completed their pregnancies were infected in their second trimester (6,309 women).

ZIKA COMPLICATIONS

ZIKA VIRUS-ASSOCIATED GUILLAIN-BARRÉ SYNDROME (GBS)

Between EW 50 of 2015 and EW 49 of 2016, Colombia reported 669 cases of neurological syndrome in persons with previous history of symptoms consistent with Zika virus disease.¹ Among those patients, 65 % (435 cases) have been classified as Guillain-Barré syndrome (GBS) cases. The epidemic curve of the neurological syndrome and Zika is available as of EW 49 and shows a similar distribution by EW as the epidemic curve for cases of Zika virus disease (**Figure 5**).²

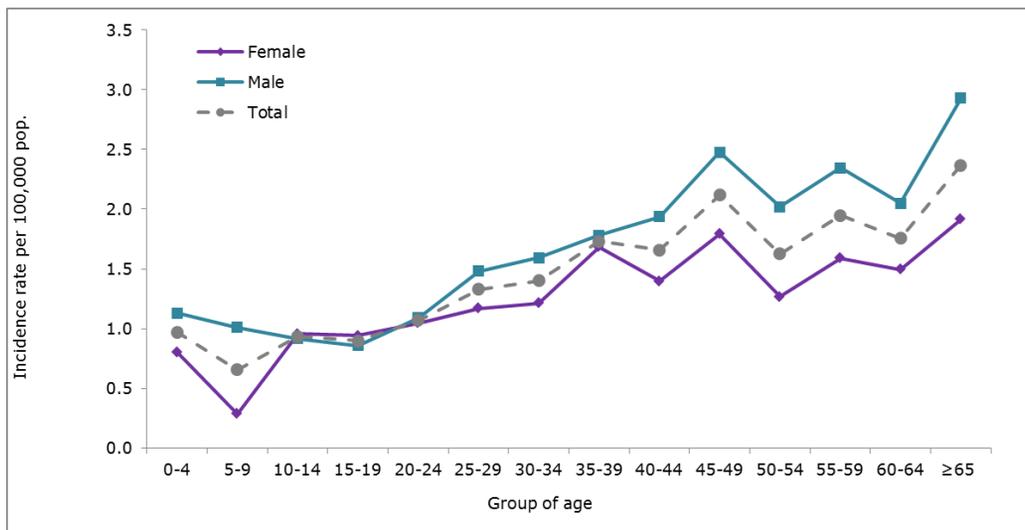
Figure 5. Suspected and confirmed cases of Zika and neurological syndrome. Colombia. EW 42 of 2015 to EW 49 of 2016.



Source: Colombia National Institute of Health (Epidemiological Bulletin. EW 49 of 2016)² and reproduced by PAHO/WHO

In the distribution by sex, males have a higher incidence rate of GBS compared to females (55.8%).¹ With regards to the age-distribution, the highest incidence rates of neurological syndrome associated to Zika infection are in the following age-groups: older than 65 years, 45-49 years and 55-59 years (**Figure 6**).

Figure 6. Incidence rate of neurological syndrome related to infection by Zika virus cases per 100,000 population by sex age-group. Colombia, EW 42 of 2015 to EW 49 of 2016.



Source: Data provided by the Colombia Ministry of Health and Social Protection and reproduced by PAHO/WHO

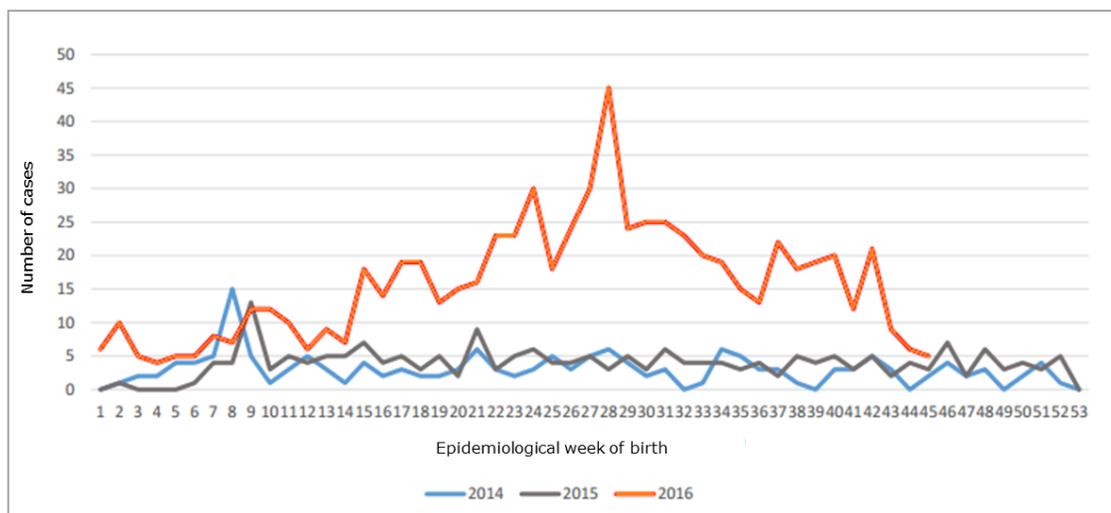
CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

Between EW 1 and EW 49 of 2016, a total of 785 microcephaly cases have been reported in Colombia. This number represents an increase compared to the expected historical annual mean (140 cases per year).² Of the total cases notified, 69 have been laboratory-confirmed for association with Zika virus infection, 231 cases have been discarded, and 485 remain under investigation.

In 2016, the number of microcephaly cases shows an increasing trend reaching a peak of 42 cases in EW 28 (**Figure 7**).¹ While the number of cases have gradually decreased since, the trend still represents a higher number of cases when compared to the same period in 2014 and 2015. Information on distribution of microcephaly cases by EW is only available up to EW 45.

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”.⁴ 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.⁴

Figure 7. Microcephaly cases by EW. Colombia. 2014 to EW 45 of 2016.



Source: Data published by the National Health Institute⁵ and reproduced by PAHO/WHO

⁴ 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>.

⁵ Colombia National Institute of Health. Intensified surveillance of Microcephaly and other anomalies Nerves Associated with Zika. November 2016. Available at: <http://www.ins.gov.co/Noticias/Reunin%20nacional%20de%20vigilancia%20en%20salud%20publica/09.%20Vigilancia%20%20defectos%20congénitos%20y%20microcefalias%20por%20Zika.pdf>

DEATHS AMONG ZIKA CASES

As of EW 49 of 2016, no deaths among Zika cases were reported by the Colombia Ministry of Health.¹

NATIONAL ZIKA SURVEILLANCE GUIDELINES

The Colombia Ministry of Health guidelines for clinical management of congenital anomalies in fetuses associated with Zika virus during pregnancy are available at:

<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ET/linea-deteccion-manejo-clinico-anomalia-congenitas-fotos-zika.pdf#search=guia%2520zika>

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%200043%202015%20Zika.pdf>

The announcement on the public health surveillance and control of neurological syndromes associated with the Zika virus released on 15 December 2015 is available at:

<http://www.ins.gov.co/Noticias/ZIKA/Circular%20Ext%200064%202016%20Vigilancia%20y%20notificaci%C3%B3n.pdf>

Intensification of surveillance for Guillain-Barre syndrome began on 19 April 2016. More information is available at:

<http://www.ins.gov.co/Noticias/ZIKA/Circular%20Ext%200022%202016%20Gillaen%20Barr%C3%A9.pdf>

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. Both the information published in the epidemiological bulletin, and data provided by the IHR NFP has been used in this publication. At the time of this report, the latest information shared with PAHO/WHO was from EW 45 of 2016, while the latest available information published online by the Colombia National Institute of Health was from EW 49 of 2016.