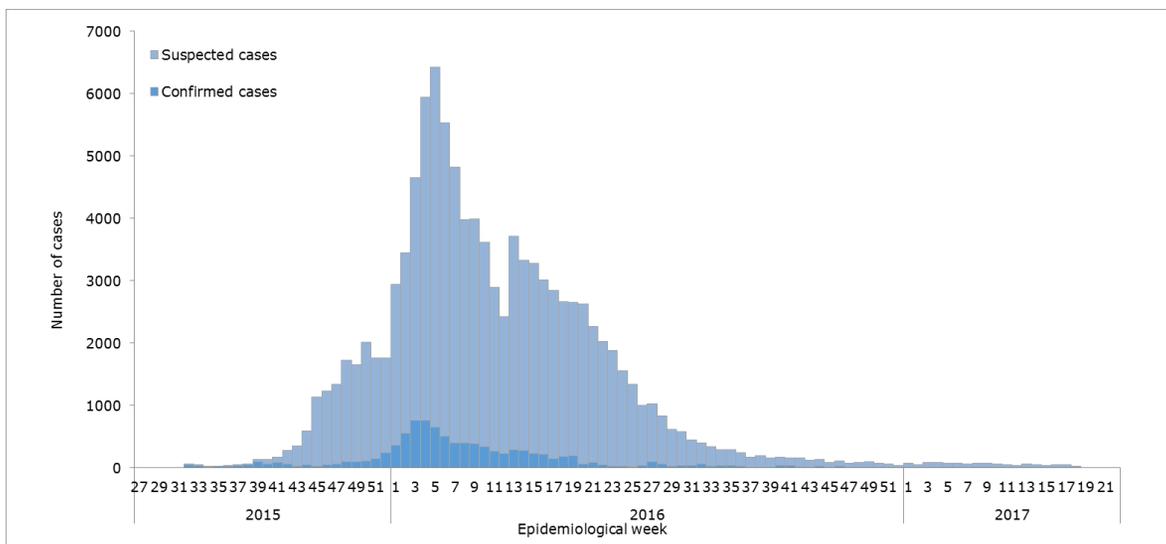


Zika-Epidemiological Report Colombia

29 June 2017

Figure 1. Suspected and confirmed Zika cases by epidemiological week (EW). Colombia. EW 27 of 2015 to EW 22 of 2017.



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

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).

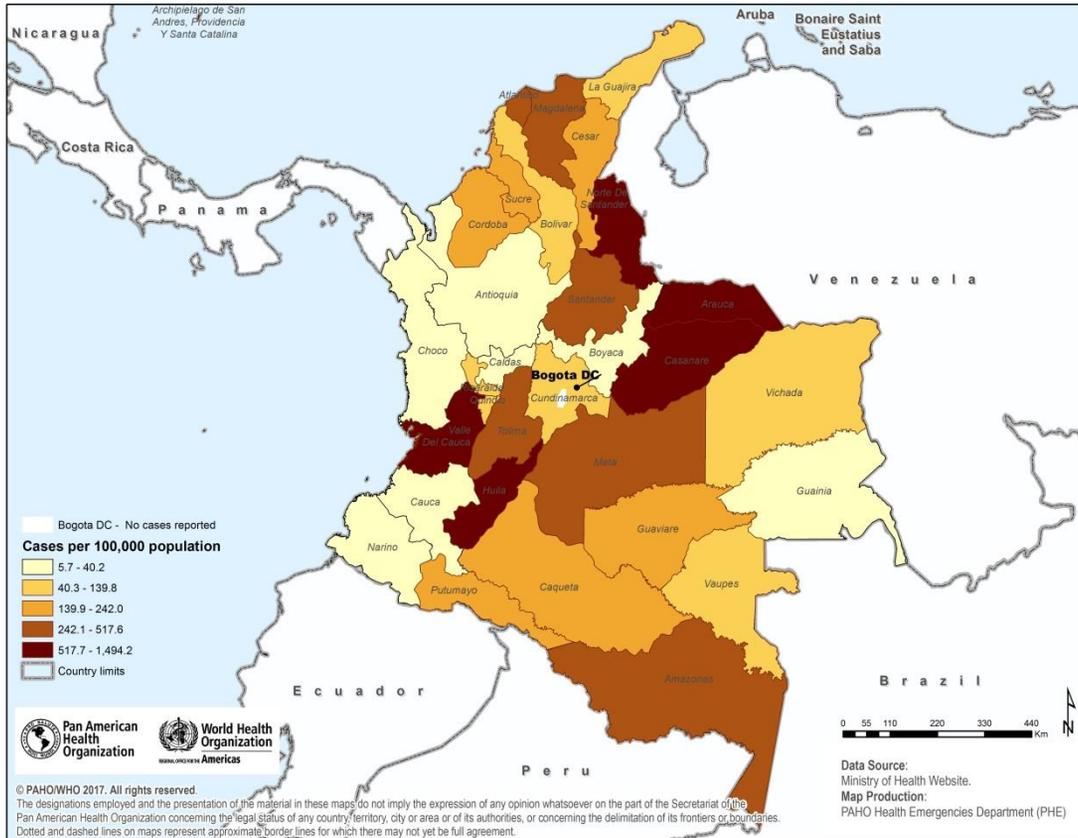
GEOGRAPHIC DISTRIBUTION

As of EW 23 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 23 of 2017, the highest incidence rate of Zika (in descending order) has been reported from the departments of Archipelago de San Andres, Casanare, Norte De Santander, Arauca, Huila, Valle Del Cauca and Tolima (**Figure 2**).²

¹ Data reported to PAHO/WHO by the Colombia International Health Regulations (IHR) National Focal Point (NFP) on 23 May 2017.

² Colombia National Institute of Health. Epidemiological Bulletin. EW 23 of 2017. Available at: <http://www.ins.gov.co/boletin-epidemiologico/Boletn%20Epidemiolgico/2017%20Boletn%20Epidemiol%20B3gico%20semana%2023.pdf>

Figure 2. Confirmed and suspected Zika cases per 100,000 population by department. Colombia. EW 32 of 2015 to EW 23 of 2017.



Source: Data published by the Colombia National Institute of Health and reproduced by PAHO/WHO²

TREND

In 2017, a total of 1,342 cases of Zika were reported up to EW 23, representing a 60 fold decrease in cases compared to the same period in 2016.¹ 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 46 suspected and confirmed cases in the last 8 weeks (EW 11 to EW 18 of 2017).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 18 of 2017.

Between EW 1 and 23 of 2017, 54.8% of the reported cases were among females. With regards to age group, the highest percentage of cases were reported among 20-24 year-old (13.3%).²

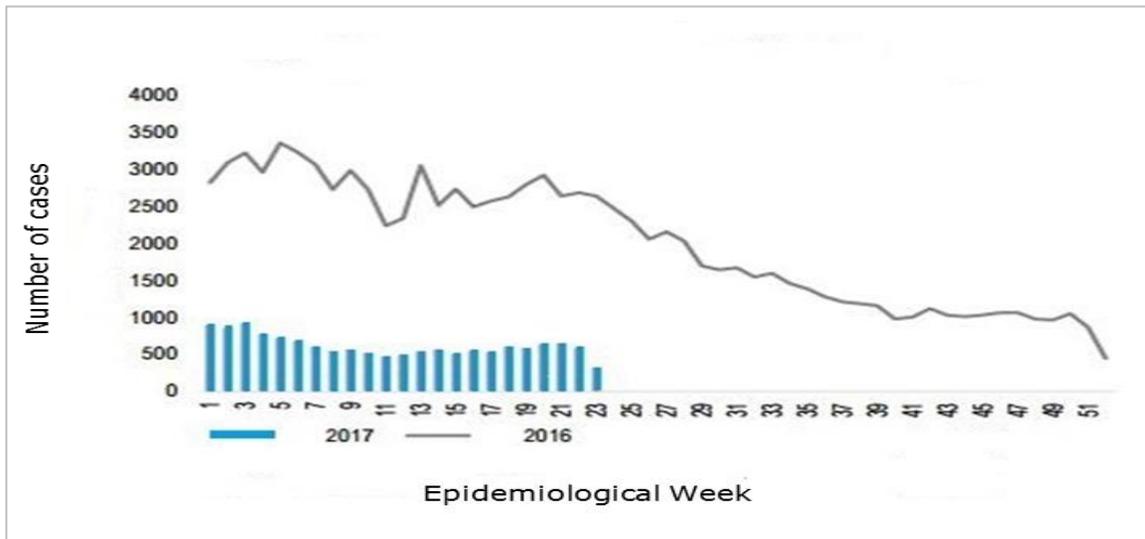
CIRCULATION OF OTHER ARBOVIRUSES

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 14,152 dengue cases have been reported up to EW 23, representing a 78% reduction in cases compared to the same period in 2016 (**Figure**

Suggested citation: Pan American Health Organization / World Health Organization. Zika - Epidemiological Report Colombia. June 2017. Washington, D.C.: PAHO/WHO; 2017

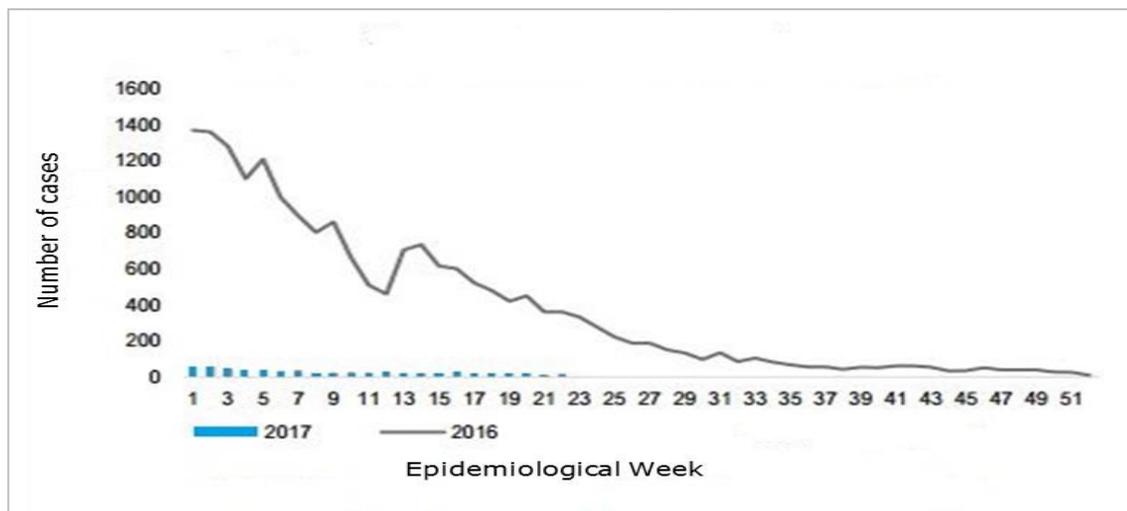
3).^{2,3} Similarly, a total of 619 chikungunya cases have been reported up to EW 23 in 2017, representing a 96% reduction the cases compared to the same period in 2016 (**Figure 4**).^{2,3}

Figure 3. Cases of Dengue. Colombia. EW 1 to EW 52 of 2016 and EW 1 to EW 23 of 2017.



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

Figure 4. Cases of Chikungunya. Colombia. EW 1 to EW 52 of 2016 and EW 1 to EW 23 of 2017.



Source: Data published 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. Since the beginning of the outbreak up to EW 23 of 2017, there have

³ Colombia National Institute of Health. Epidemiological Bulletin. EW 23 of 2016. Available at: <http://www.ins.gov.co/boletin-epidemiologico/Boletn%20Epidemiolgico/2016%20Bolet%C3%ADn%20Epidemiol%C3%B3gico%20semana%2023.pdf>

Suggested citation: Pan American Health Organization / World Health Organization. Zika - Epidemiological Report Colombia. June 2017. Washington, D.C.: PAHO/WHO; 2017

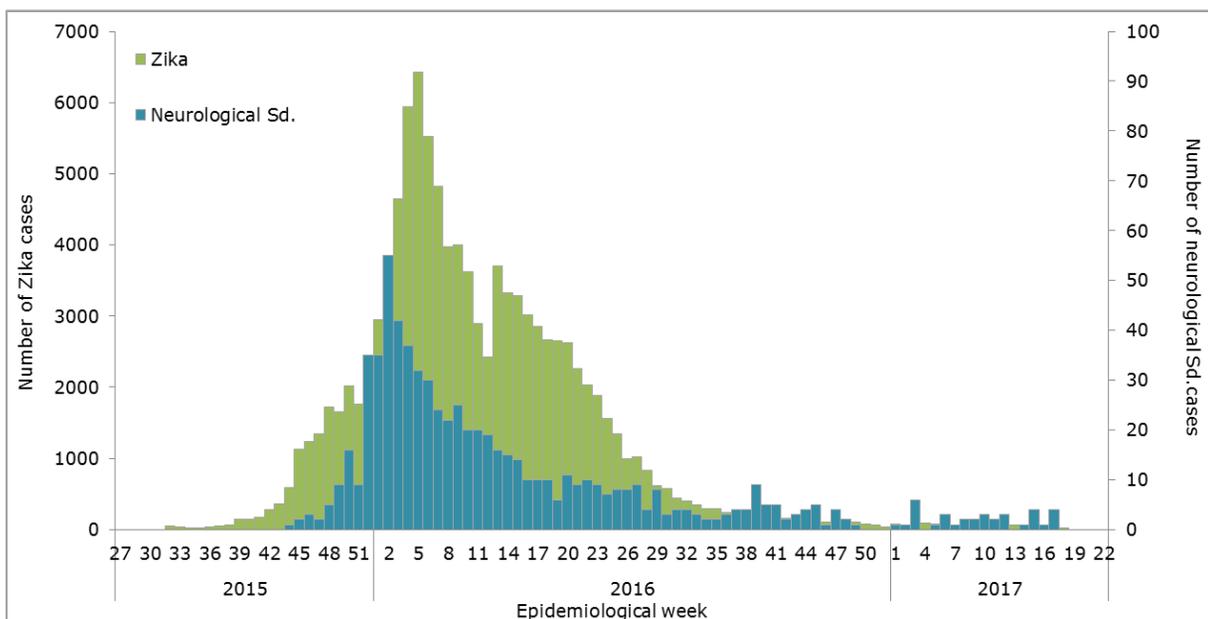
been a total of 19,952 pregnant women with suspected Zika virus disease reported in the country, of which 6,365 have been laboratory-confirmed with Zika virus infection.^{2,4}

ZIKA COMPLICATIONS

ZIKA VIRUS-ASSOCIATED GUILLAIN-BARRÉ SYNDROME (GBS)

Between EW 42 of 2015 and EW 23 of 2017, Colombia reported 720 cases of neurological syndrome in persons with previous history of symptoms consistent with Zika virus disease.^{2,4} Among those patients, 63% (452 cases) have been classified as Guillain-Barré syndrome (GBS) cases. The epidemic curve of the neurological syndrome and Zika is available as of EW 18 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 22 of 2017.



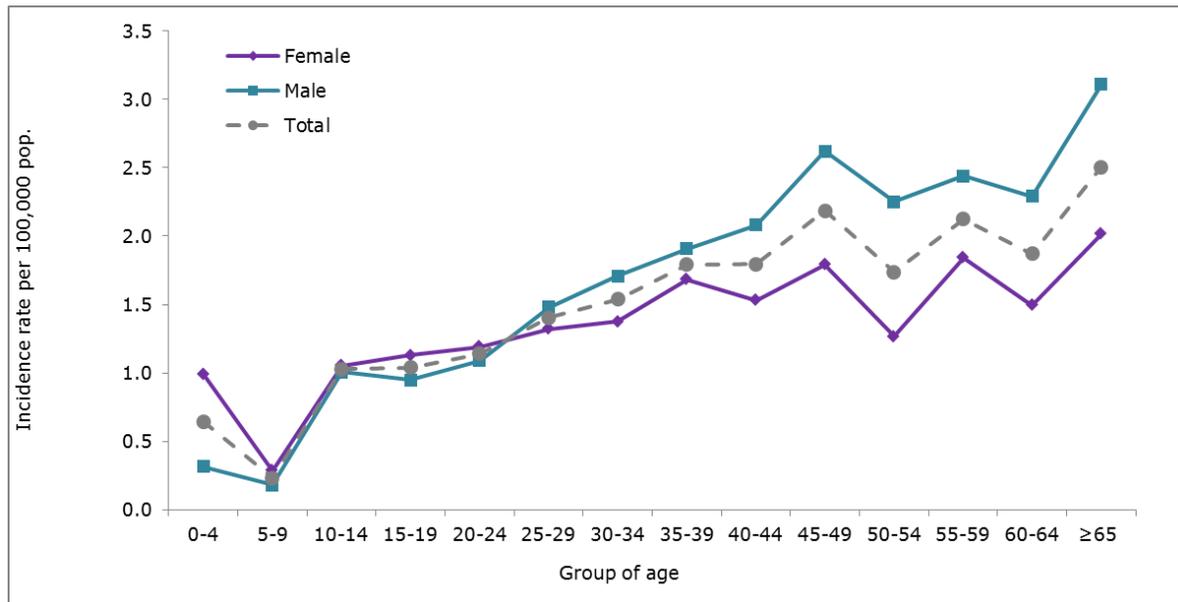
Source: Data provided by the Colombia Ministry of Health and Social Protection to PAHO/WHO ¹

In the distribution by sex, males have a slightly higher incidence rate of neurological syndrome related to infection by Zika virus (2 cases per 100,000 population) compared to females (1 case per 100,000).^{2,4} With regard 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**).

⁴ Colombia National Institute of Health. Epidemiological Bulletin. EW 52 of 2016. Available at: <http://www.ins.gov.co/boletin-epidemiologico/Boletn%20Epidemiolgico/2016%20Bolet%C3%ADn%20epidemiol%C3%B3gico%20semana%2052%20-.pdf>

Suggested citation: Pan American Health Organization / World Health Organization. Zika - Epidemiological Report Colombia. June 2017. Washington, D.C.: PAHO/WHO; 2017

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 23 of 2017.



Source: Data published by the Colombia Ministry of Health and Social Protection and reproduced by PAHO/WHO^{2,5}

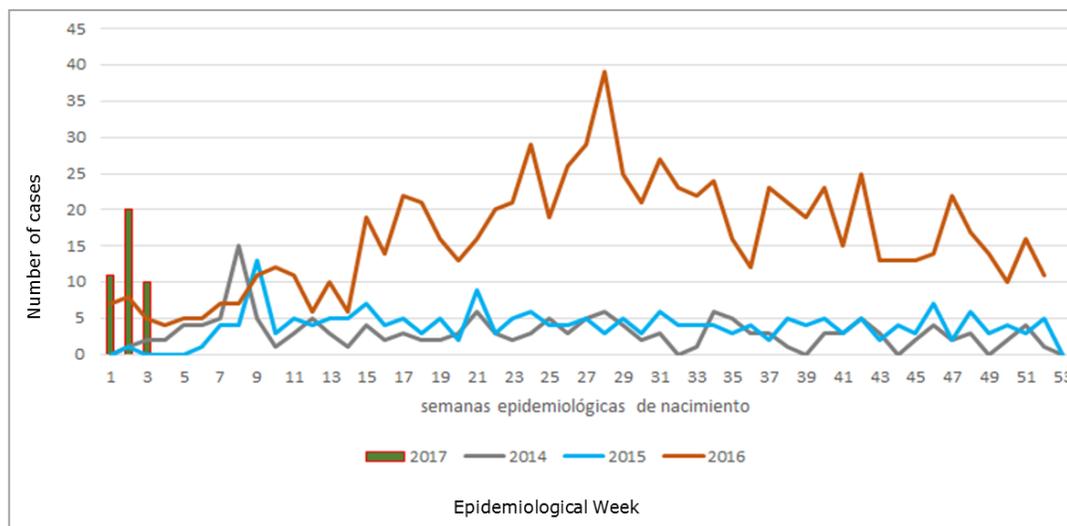
CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

Between EW 1 of 2016 and EW 23 of 2017, a total of 1,302 microcephaly cases have been reported in Colombia.² This number represents an increase compared to the expected historical annual mean (140 cases per year). Of the total cases notified, 166 have been laboratory-confirmed for association with Zika virus infection, 426 cases have been discarded, 155 do not correspond to microcephaly, and 555 remain under investigation.^{2,5}

In 2016, the number of microcephaly cases showed an increasing trend reaching a peak in EW 28 (**Figure 7**).⁶ 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.

⁵ 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, Roza 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>.

Figure 7. Microcephaly cases by EW. Colombia. 2014 to EW 3 of 2017.



Source: Data provided by the Colombia Ministry of Health and Social Protection ⁶ and reproduced by PAHO/WHO

DEATHS AMONG ZIKA CASES

As of EW 23 of 2017, no deaths among Zika cases were officially reported by the Colombia Ministry of Health.¹

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>

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:

⁶ Data reported to PAHO/WHO by the Colombia Ministry of Health and Social Protection on 27 February 2017.

<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. At the time of this report, the latest information shared with PAHO/WHO was from EW 18 of 2017, while the latest available information published online by the Colombia National Institute of Health was from EW 23 of 2017.