**Zika-Epidemiological Report**

**Colombia**

3 November 2016

**Figure 1.** Suspected and confirmed Zika cases by epidemiological week (EW). Colombia. EW 27 of 2015 to EW 38 of 2016.

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

**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 41 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.¹

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). Between EW 6 and EW 38 of 2016, there has been a steady decline in the number of cases.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.

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).²

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

² Reported to PAHO/WHO by the Colombia Ministry of Health and Social Protection on 28 October 2016.


ZIKA VIRUS DISEASE IN PREGNANT WOMEN

The Colombian National Institute of Health (Instituto Nacional de Salud, or INS by its acronym in Spanish) is conducting surveillance for pregnant women with suspected Zika virus disease. As of EW 41 of 2016, there have been a total of 19,104 pregnant women with suspected Zika virus disease reported in the country, of which 5,881 have been laboratory-confirmed with Zika virus infection (Figure 4).¹

Figure 4. Suspected and confirmed Zika cases in pregnant women by EW. Colombia. EW 29 of 2015 to EW 38 of 2016.

Since the beginning of the outbreak and up to EW 32 of 2016, 18,899 pregnant women with suspected and confirmed Zika virus disease were registered with additional surveillance systems (Table 1).³ Out of the total, there were 4,396 ongoing pregnancies and 14,503 women who completed their pregnancies. The majority of the 14,503 women who completed their pregnancies were infected in their second trimester, accounting for 37% (5,411 women). Among pregnant women under follow-up (4,396 women), 41% (1,799 cases) were infected in their first trimester.

Table 1. Pregnant women under follow-up. Colombia. Up to EW 32 of 2016.

<table>
<thead>
<tr>
<th>Trimester when pregnant women were infected with Zika virus</th>
<th>Pregnancy over</th>
<th>Ongoing Pregnancy</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>First trimester</td>
<td>3,132</td>
<td>1,799</td>
<td>4,931</td>
</tr>
<tr>
<td>Second trimester</td>
<td>5,411</td>
<td>970</td>
<td>6,381</td>
</tr>
<tr>
<td>Third trimester</td>
<td>5,104</td>
<td>337</td>
<td>5,441</td>
</tr>
<tr>
<td>Unknown date</td>
<td>856</td>
<td>1,290</td>
<td>2,146</td>
</tr>
<tr>
<td>Total</td>
<td>14,503</td>
<td>4,396</td>
<td>18,899</td>
</tr>
</tbody>
</table>

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

³ Reported to PAHO/WHO by the Colombia Ministry of Health and Social Protection on 4 September 2016.


ZIKA COMPLICATIONS

ZIKA VIRUS-ASSOCIATED GUILLAIN-BARRÉ SYNDROME (GBS)

Between EW 50 of 2015 and EW 41 of 2016, Colombia has reported 642 cases of neurological syndrome in persons with previous history of symptoms consistent with Zika virus disease. Among these patients, 66% (422 cases) have been classified as Guillain-Barré syndrome (GBS). The epidemic curve of the neurological syndrome cases shows a similar distribution by EW as the epidemic curve for cases of Zika virus disease (Figure 5).

**Figure 5.** Suspected and confirmed cases of Zika and neurological syndrome. Colombia. EW 27 of 2015 to EW 38 of 2016.

![Epidemic Curve of Zika and Neurological Syndrome Cases](image)

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

Overall, males have a higher incidence rate of GBS compared to females. 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 41 of 2016.

![Incidence Rate Chart](image)

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


CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

Between EW 1 and EW 41 of 2016, a total of 602 microcephaly cases have been reported in Colombia. This number represents an increase compared to the expected historical annual mean (140 cases per year). As of EW 41, of the cases notified, 47 have been laboratory-confirmed for Zika virus infection, 213 cases have been discarded and 342 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). While the number of cases has gradually decreased since then, the trend still represents a higher number of cases when compared to the same period in 2014 and 2015.

Figure 7. Microcephaly cases by EW. Colombia. 2014 to EW 38 of 2016.

DEATHS AMONG ZIKA CASES

As of EW 41 of 2016, no deaths among Zika cases were reported by the Colombia Ministry of Health.

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:


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%20notificacion%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%A99.pdf](http://www.ins.gov.co/Noticias/ZIKA/Circular%20Ext%200022%202016%20Gillaen%20Barr%C3%A99.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 on a weekly basis. 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 38 of 2016 while the latest available information published online by the Colombia Ministry of Health and Social Protection was from EW 41 of 2016.