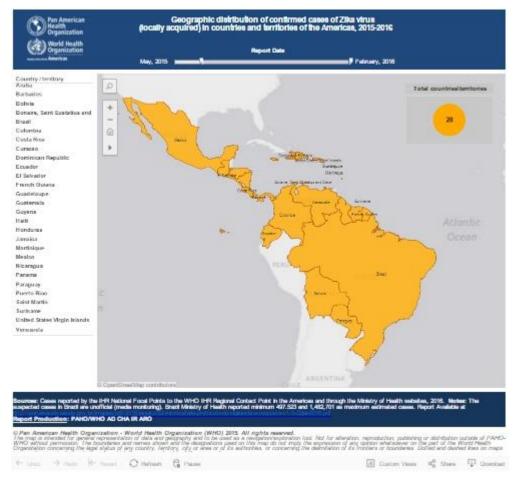


Epidemiological Update

Zika virus infection 17 February 2016

During Epidemiological Week 6 of 2015, two new additional countries/territories have reported laboratory-confirmed autochthonous (local) transmission of Zika virus: Aruba and Bonaire, bringing the Regional total to 28 countries and territories reporting local transmission of Zika virus. See map below.



Novel Findings

Scientists from the Oswaldo Cruz Foundation (Fiocruz) in Brazil have detected live Zika virus in urine and saliva samples. The significance of this finding requires further investigation. See full report.

Reported increase of congenital microcephaly and other central nervous system disorder

Brazil

On 17 February, the Brazil Ministry of Health reported 201 additional cases of microcephaly suspected to be related to Zika virus, bringing the total to 5,280 reported cases as of epidemiological week (EW) 6 of 2016. During EW 6, there were 46 new confirmed cases, with a total of 508 confirmed cases of microcephaly with typical malformations indicative of congenital infection by clinical, radiological and/or laboratory methods. Out of the total investigated cases, 837 cases were discarded to be non-infectious causes or do not fit the case definitions, and 3,935 cases remain under investigation. There are 17 additional deaths including miscarriages and stillbirths, with 108 deaths in total. As of EW 5, Zika virus was laboratory confirmed in 41 of the cases. See the Brazil Ministry of Health epidemiological report.

Slovenia

A case of congenital malformation (microcephaly) was detected in a pregnant woman in Slovenia, who had a febrile illness with rash at the end of the first trimester of pregnancy while she was living in Brazil. Ultrasonography performed at 29 weeks of gestation revealed microcephaly with calcification in the fetal brain and placenta. After the mother requested termination of the pregnancy, a fetal autopsy was performed. Microbiologic investigations noted the complete genome of Zika virus was recovered from the fetal brain. See the article.

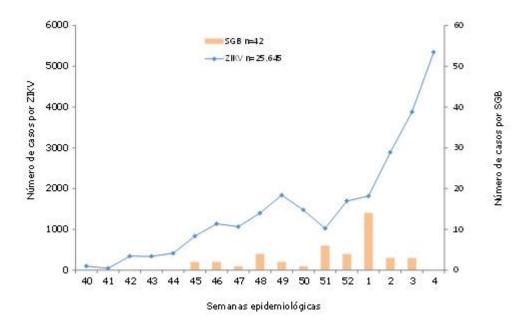
Viral RNA and antigens from Zika virus were found in brain tissues from two infants with microcephaly who died within 20 hours, and placental tissues from two early miscarriages All four mothers had clinical signs of Zika virus infection, including fever and rash, during the first trimester of pregnancy but did not present clinical signs of active infection at the time of delivery or miscarriage. Sequence analysis provided further evidence of Zika virus infection, revealing highest identities with Zika virus strains isolated from Brazil during 2015. See the article.

Colombia

An increase in GBS was reported by Colombia Health authorities on February 2016. As per the figure below, the increase of GBS follows Zika infection. Increased frequency of GBS observed in males and the frequency increased with age.

On average Colombia reported 242 cases of GBS annually, however, in the five-week period between mid-December 2015 and late January 2016, 86 cases of GBS were detected. As illustrated in figure 1 increased cases of GBS start being detected 5 weeks after initial detection of Zika virus circulation.

Figure 1. Cases of ZIKV and GBS, Colombia. EW 40/2015- 4/2016



Source: Ministry of Health of Colombia

El Salvador

From 1 December 2015 to 9 January 2016, 118 GBS were recorded in El Salvador, including 5 deaths. In El Salvador, the annual average number of GBS is usually 169 cases. As illustrated in figure 2, increases in cases of GBS was detected two weeks following initial detection of Zika virus circulation.

SGB n=118 -ZIKV n=7.923 Número de casos por ZIKV Semanas epidemiológicas

Figure 2. Cases of ZIKV and GBS, El Salvador. EW 48/2015- 5/2016

Source: Ministry of Health of El Salvador

Fifty seven (48%) were female and 61 (52%) were male; and 83% were 30 years old and older. Out of the 22 patients whose information was available, 12 (54%) presented with febrile rash illness in the 15 days prior to the onset of symptoms consistent with GBS. Investigations are ongoing to determine the cause of infection.

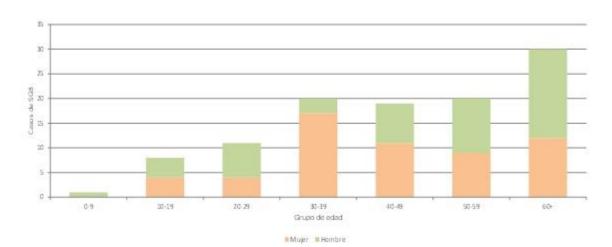


Figure 3. Cases of GBS, by group of age and sex. El Salvador. EW 48/2015- 5/2016

Source: Ministry of Health of El Salvador

Fatal cases with atypical presentation

Brazil

On 11 February 2016, the Brazil IHR National Focal Point (NFP) notified that on 22 January 2016, they were informed by the Evandro Chagas Institute regarding the result of a retrospective investigation of a death related to Zika virus infection. The case is a 20-year-old female resident of Serrinha municipality in Rio Grande do Norte state with no history of previous illness. The case developed symptoms on 11 April 2015 (dry cough was, high fever, myalgia, fatigue and dyspnea. She was admitted to the ICU due to worsening condition with heavy bleeding and decompensation which eventually evolved to death. Blood samples collected on 17 April 2015 were negative for dengue, and vicera fragments (liver, kidneys and lungs) of the patient were positive for Zika virus by RT-PCR. Necropsy revealed diffuse pulmonary infiltrate and bilateral pulmonary abscesses. The investigation into the cause of death is ongoing.

Suriname

Suriname reported four Zika-linked deaths notified within a two week period. The deaths were in males, aged 61, 64, 58, and 75 years respectively, and presented with a short period of diarrhea or vomiting and dehydration after which they worsened and died shortly thereafter. The four fatal cases all had underlying illnesses or risk factors and concurrent disease could not be excluded.