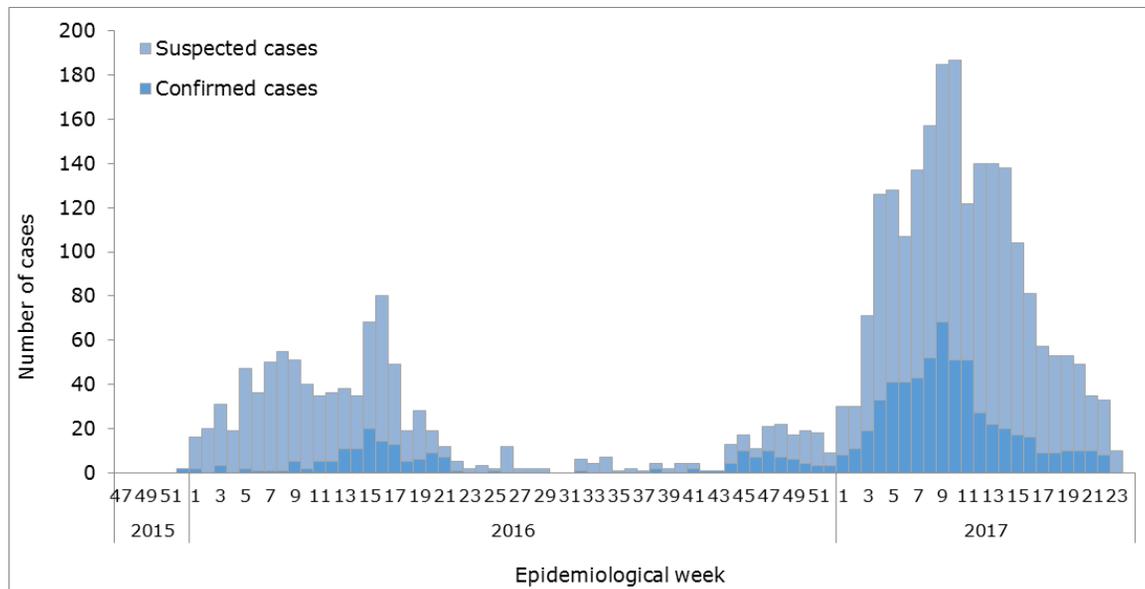


Zika-Epidemiological Report

Bolivia (Plurinational State of)

25 September 2017

Figure 1. Confirmed and suspected Zika cases by epidemiological week (EW). Bolivia. EW 47 of 2015 to EW 24 of 2017.



Source: Data provided by the Bolivia Ministry of Health to PAHO/WHO ¹

FIRST AUTOCHTHONOUS VECTOR-BORNE CASES

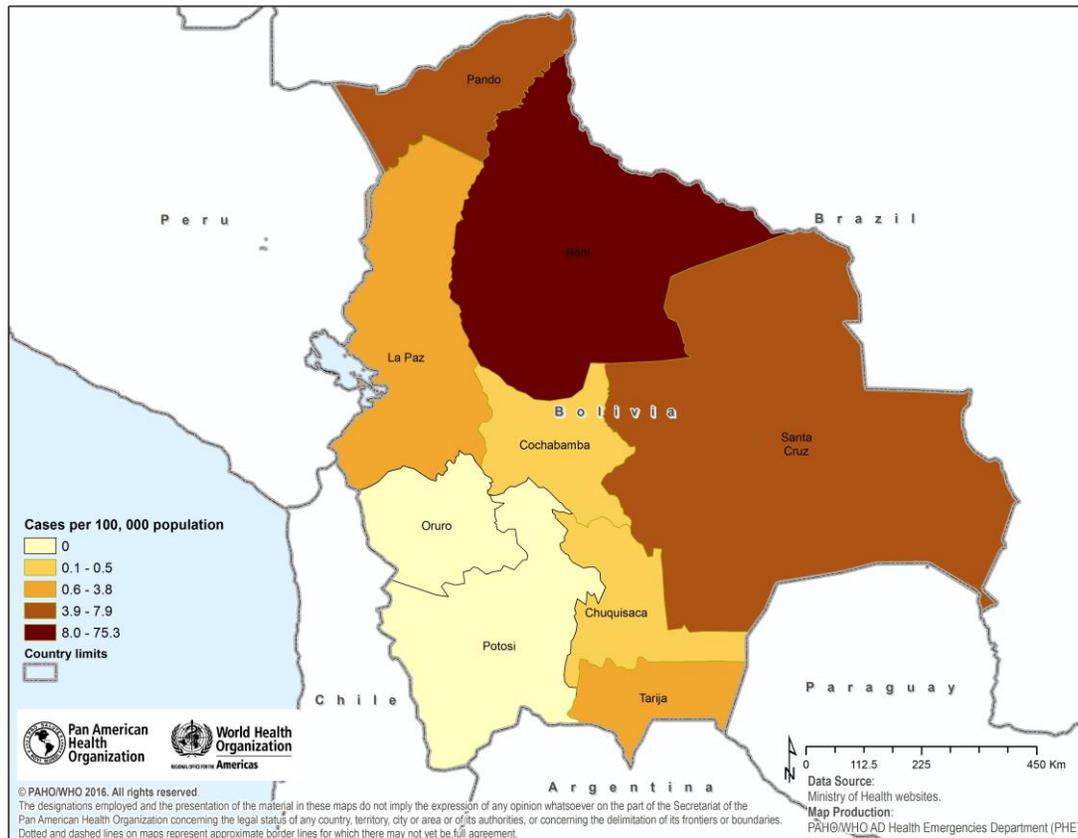
In epidemiological week (EW) 2 of 2016, the Bolivia International Health Regulations (IHR) National Focal Point (NFP) notified PAHO/WHO of the detection of the first autochthonous vector-borne case of Zika.

GEOGRAPHIC DISTRIBUTION

Confirmed Zika cases by geographic distribution are only available for 2017. As of EW 34, a total of 597 confirmed cases were reported from the department of Beni (n=348), Santa Cruz (n=171), La Paz (n=40), Tarija (n=21), Pando (n=11), Chuquisaca (n=3) and Cochabamba (n=3).³ **Figure 2.**

¹ Reported to PAHO/WHO from Bolivia International Health Regulation (IHR) National Focal Point (NFP) on 6 July 2017.

Figure 2. Cumulative (?) confirmed Zika cases per 100,000 population by department. Bolivia. EW 1 to EW 24 of 2017



Source: Data provided by the Bolivia Ministry of Health to PAHO/WHO¹

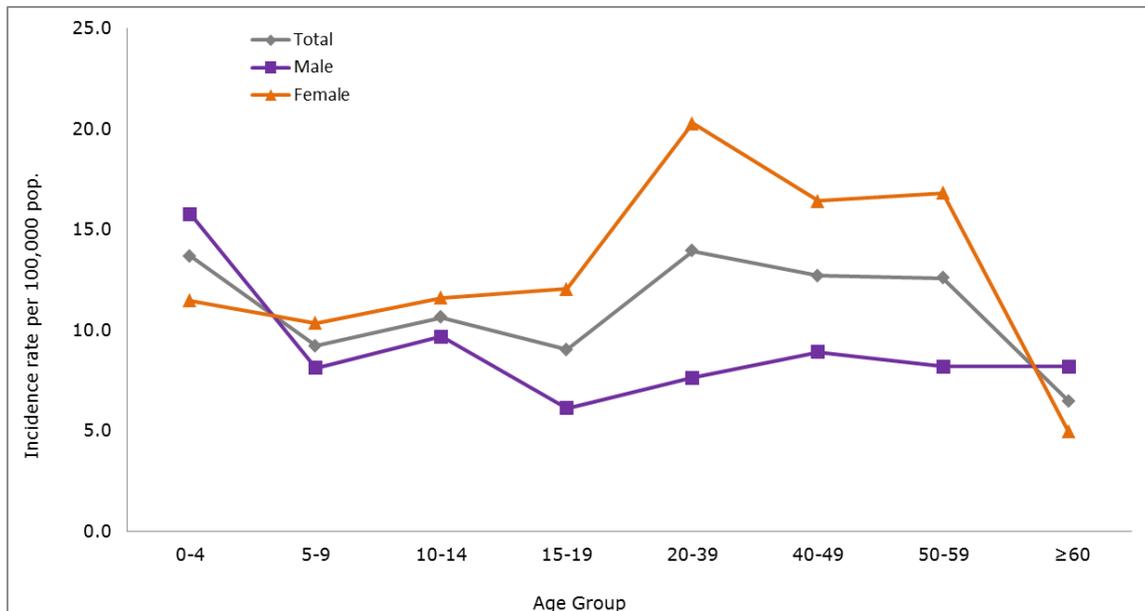
TREND

Between EW 1 and EW 34 of 2017, a total of 1,716 suspected cases of Zika were reported in Bolivia.³ Information on confirmed and suspected Zika cases by EW is only available up to EW 24 of 2017. In 2017, the number of suspected and laboratory-confirmed Zika cases in Bolivia increased in EW 3, and reached a peak in EW 10 with 187 cases being reported (**Figure 1**). The cases have been on a steady decline since then. The number of Zika cases reported between EW 1 and 24 of 2017, (2,173 suspected and confirmed cases) represents a large (174%) increase compared with the same period in 2016 (n=794).¹ In the last 8 weeks (EW 17 to EW 24), an average of 36 suspected and confirmed cases per week was reported.

Between EW 1 of 2016 and EW 17 of 2017, there was a preponderance of females among suspected Zika cases in Bolivia for all age groups, except for the groups aged 0-4 years and ≥ 60 where the incidence rate was higher among males (**Figure 3**)². This suggests that there could be a diagnostics bias towards females in an effort to reach pregnant women. The highest incidence rate was observed among females aged 20-39 years (20 cases per 100,000 population).

² Data published by the Bolivia Ministry of Health as of EW 17 of 2017 and reproduced by PAHO/WHO. Available at http://estadisticas.minsalud.gob.bo/Reportes/Form_301_2017.aspx. Query made on 12 June 2017.

Figure 3: Incidence rate of suspected Zika cases by sex and age group. Bolivia. EW 1 of 2016 to EW 17 of 2017.



Source: Data published by the Bolivia Ministry of Health and reproduced by PAHO/WHO³

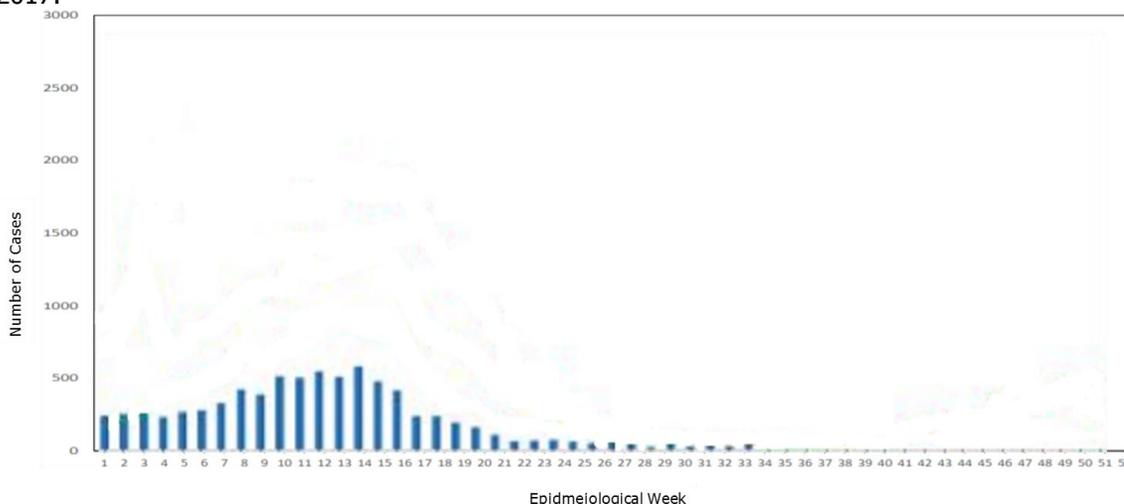
CIRCULATION OF OTHER ARBOVIRUSES

As of EW 34 of 2017, a total of 7,923 suspected dengue cases (**Figure 4**) have been reported in the departments of Beni (n=2,983), Santa Cruz (n=2,918), Tarija (n=852), La Paz (n=524), Pando (n=228), Chuquisaca (n=181), Cochabamba (n=236) and Oruro (n=1)³. At the national level, a total of 845 dengue cases were confirmed up to EW 33 of 2017. In 2016, a total of 31,756 suspected cases (288 cases per 100,000) of dengue were reported in Bolivia, approximately 17% higher than the total number of suspected cases reported in 2015.⁴

³ Bolivia Ministry of Health. Epidemiological Bulletin. EW 34 of 2017. Available at: <http://snis.minsalud.gob.bo/>

⁴ PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Dengue and Severe Dengue (SD) in the Americas by Country. EW 52 of 2016. Available at: http://www.paho.org/hq/index.php?option=com_topics&view=rdrmore&cid=6290&Itemid=40734

Figure 4: Number of suspected dengue cases by epidemiological week. Bolivia. EW 1 to EW 34 of 2017.



Source: Surveillance data published by the Bolivia Ministry of Health and reproduced by PAHO/WHO³

With regard to chikungunya, a total of 3,192 suspected cases have been reported up to EW 34 of 2017 at the national level. In addition to the suspected cases, a total of 22 chikungunya cases were confirmed in the departments of Beni (n=10), Santa Cruz (n=7), Chuquisaca (n=2), La Paz (n=2), and Tarija (n=1), to date.³ In 2016, a total of 20,785 suspected chikungunya cases were reported up to EW 52 of 2016.⁵

ZIKA VIRUS DISEASE IN PREGNANT WOMEN

Between EW 44 of 2016 and EW 24 of 2017, a cumulative total of 189 confirmed cases of Zika virus infection in pregnant women were reported by Bolivia national authorities.¹

ZIKA COMPLICATIONS

ZIKA-VIRUS-ASSOCIATED GUILLAIN-BARRÉ SYNDROME (GBS)

As of EW 24 of 2017, three cases of Guillain-Barré syndrome (GBS) associated with Zika virus infection was confirmed in the department of Santa Cruz.¹ The first patient has since died.⁶

CONGENITAL SYNDROME ASSOCIATED WITH ZIKA VIRUS INFECTION

As of EW 24 of 2017, the Bolivia Ministry of Health (MoH) reported 14 laboratory-confirmed cases of microcephaly associated with Zika virus infection.⁷

⁵ PAHO/WHO. Data, Maps and Statistics. Number of reported cases of Chikungunya Fever in the Americas - EW 52 (December 30, 2016). Available at:

http://www.paho.org/hq/index.php?option=com_topics&view=readall&cid=5927&Itemid=40931&lang=en

⁶ Bolivia Ministry of Health. MoH informs on first case of GBS associated with Zika. Press release. 19 November 2016.

Available at: <https://www.minsalud.gob.bo/1837-ministerio-de-salud-informa-sobre-primer-caso-de-guillain-barre-por-zika>

⁷ Reported to PAHO/WHO from Bolivia International Health Regulation (IHR) National Focal Point (NFP) on 18 January 2017

DEATHS AMONG ZIKA CASES

As of EW 35 of 2017, no deaths among Zika cases have been reported the Bolivia health authorities to PAHO/WHO.¹

NATIONAL ZIKA SURVEILLANCE GUIDELINES

The Bolivia Ministry of Health national guideline for management of Zika virus infection is available at: <https://www.minsalud.gob.bo/images/Documentacion/dgss/Epidemiologia/DENGUE-Chik-Zika/Guia%20final%20de%20Zika.pdf>

LABORATORY CAPACITY

The diagnosis of Zika virus is performed by molecular detection (real time RT-PCR) at the *Centro Nacional de Enfermedades Tropicales* (CENETROP), Ministry of Health. For its diagnoses, CENETROP also uses serologic testing based on ELISA assays (IgM).

INFORMATION-SHARING

At the time of this report, the latest available Zika virus information shared by the Bolivia IHR NFP was from EW 24 of 2017 and published by the Bolivia Ministry of Health was from EW 34 of 2017.