

Situation summary in the Americas

Since epidemiological week (EW) 1 to EW 6 of 2017, **Brazil, Colombia, Peru, and the Plurinational State of Bolivia**, have reported suspected and confirmed yellow fever cases.

The following is a situation summary in Brazil.

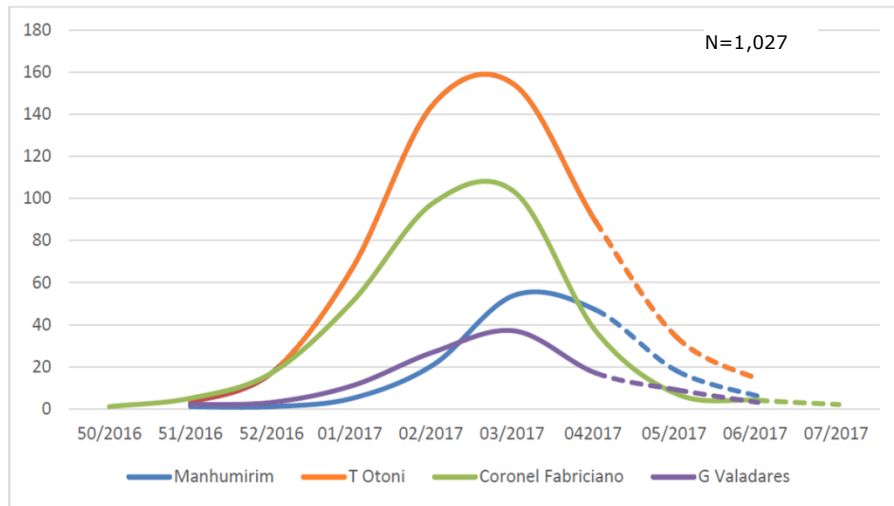
In **Brazil**, since the beginning of the outbreak in December 2016 to EW 6 of 2017, there were 1,336 cases of yellow fever reported (292 confirmed, 124 discarded, and 920 suspected cases remain under investigation), including 215 deaths (101 confirmed, 5 discarded, and 109 under investigation). The case fatality rate (CFR) is 35% among confirmed cases and 12% among suspected cases.

According to the probable site of infection, the suspected and confirmed cases are distributed in six states: Bahia (9), Espírito Santo (177), Minas Gerais (1,008), Rio Grande do Norte (1), São Paulo (10), and Tocantins (2).¹ While the confirmed cases are distributed in three states: Espírito Santo (42), Minas Gerais (246), and São Paulo (4).

In Minas Gerais, where 84% of the total suspected and confirmed cases were reported, there is a downward trend in cases in the four administrative region of the state after a peak in EW 3 of 2017 with approximately 360 cases reported in that week alone in all regions. Nonetheless, the decreasing trend will continue to be monitored to see if it continues in all the regions in the coming weeks (**Figure 1**).

¹ There are also five suspected case for which the probable site of infection remains under investigation.

Figure 1. Suspected and confirmed cases of yellow fever according to EW of onset of symptoms and administrative regions. Minas Gerais, EW 50 of 2016 to EW 7 of 2017

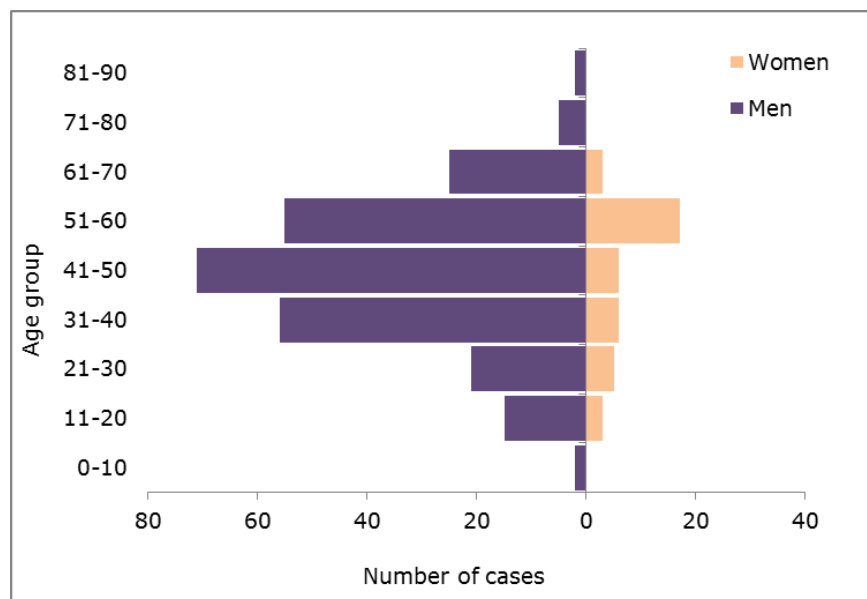


Source: Data published by the Minas Gerais Secretariat of Health and reproduced by PAHO/WHO

Of the confirmed cases, 86% (n=252) are men, of which 81% are between 21 and 60 years of age (**Figure 2**).

With regard to the confirmed deaths, 84 occurred in the state of Minas Gerais, 3 in the state of São Paulo and 14 in the state of Espírito Santo. In decreasing order, the CFR among suspected and confirmed cases by state is 75% in São Paulo, 34% in Minas Gerais, and 33% in Espírito Santo.

Figure 2. Distribution of confirmed cases of yellow fever by age and sex, Brazil, EW 48 of 2016 to EW 6 of 2017 (N= 292)



Source: Data published by Brazil Ministry of Health

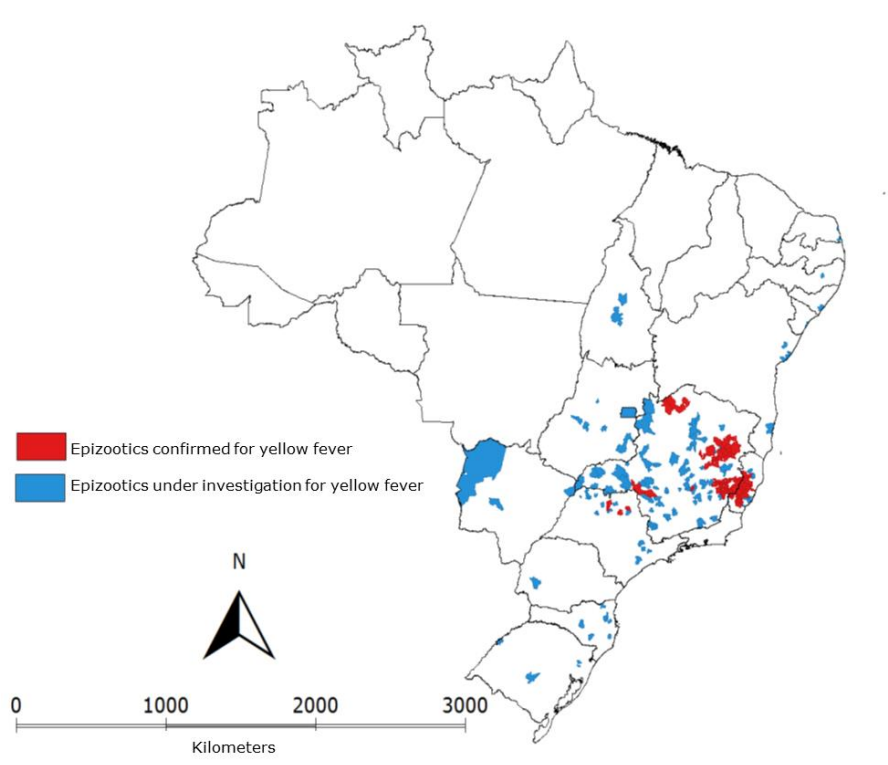
From the last yellow fever Epidemiological Update² up to 22 February 2017, a total of 236 new epizootics were reported in nonhuman primates (NHP) and are under investigation.

Since the beginning of the outbreak, a total of 883 NHP epizootics were reported, of which 377 were yellow fever confirmed and 8 were discarded.

Epizootics in NHP were reported in the Federal District and in the states of Alagoas, Bahia, Goiás, Espírito Santo, Mato Grosso do Sul, Minas Gerais, Paraná, Pernambuco, Rio Grande do Norte, Rio Grande do Sul, Santa Catarina, São Paulo, Sergipe, and Tocantins (**Figure 3**).

To date, there have been no reports of yellow fever cases linked to the current outbreak in Brazil in other countries and/or territories in the Americas. However, the Pan American Health Organization, Regional Office of the World Health Organization (PAHO/WHO) reiterates that reports of epizootics, currently under investigation, in states of Brazil bordering other countries—Mato Grosso do Sul (bordering Bolivia and Paraguay), Santa Catarina (bordering Argentina), Rio Grande do Sul (bordering Uruguay and Argentina), and Paraná (bordering Argentina and Paraguay)—represent a risk of spread of the virus to the bordering countries, especially in areas with similar ecosystems.

Figure 3. Distribution of yellow fever epizootics. Brazil, 1 December 2016 to 22 February 2017



Source: Published by Brazil Ministry of Health

² PAHO/WHO Epidemiological Update: Yellow Fever. 16 February 2017. Available at: http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&Itemid=270&qid=38179&language=en

While the possibility of a change in the yellow fever transmission cycle in this current outbreak remains, to date there is no evidence that *Aedes aegypti* plays a role in the transmission.

The Brazil situation report on the yellow fever outbreak is published daily by the Brazil Ministry of Health and is available at: <http://portalsaude.saude.gov.br/index.php/o-ministerio/principal/leia-mais-o-ministerio/619-secretaria-svs/11-svs/27300-febre-amarela-informacao-e-orientacao>.

Related Links

- Updated requirements for the International Certificate of vaccination or Prophylaxis (ICVP) with proof of vaccination against yellow fever, 16 February 2017. Available at: http://www.paho.org/hq/index.php?option=com_topics&view=article&id=69&Itemid=40784&lang=en
- PAHO/WHO Yellow Fever. Available at: http://www.paho.org/hq/index.php?option=com_topics&view=rdmore&cid=5514&Itemid=40784&lang=en
- PAHO/WHO Guidance on Laboratory Diagnosis of Yellow Fever Virus Infection, February 2017, Available at: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&Itemid=270&gid=38104&lang=en

References

1. Yellow fever reports. Brazil Ministry of Health. Available at: <http://portalsaude.saude.gov.br/index.php/o-ministerio/principal/leia-mais-o-ministerio/619-secretaria-svs/11-svs/27300-febre-amarela-informacao-e-orientacao>
2. National Center for Epidemiology, Prevention and Control of Diseases - MINSA of the Ministry of Health of Peru; Situational Room for Health Situation Analysis – EW 5 of 2017: Yellow Fever. Available at: http://www.dge.gob.pe/portal/index.php?option=com_content&view=article&id=14&Itemid=121
3. Epidemiological Bulletin EW 6. Colombia National Institute of Health. 2017. Available at: <http://www.ins.gov.co/boletin-epidemiologico/Paginas/default.aspx>
4. PAHO/WHO. Control of Yellow Fever. Practical Guide. 2005. Scientific and Technical Publication No. 603.