
Situation summary in the Americas

- In 2015, three countries in the Americas have confirmed yellow fever virus circulation: Bolivia (epizootic), Brazil, and Peru (human cases).
- In 2016, as of epidemiological week (EW) 28, three countries have reported jungle yellow fever: Brazil, Colombia, and Peru.

Epidemiological Situation

On 5 May 2016, the **Brazil** International Health Regulations (IHR) National Focal Point (NFP) had reported a fatal case of jungle yellow fever in a 38-year-old unvaccinated male resident of Bady Bassit, São Paulo with a history of travel to a rural area endemic for yellow fever.

On 19 July 2016, the Brazil IHR NFP notified another fatal yellow fever case detected in a 58-year-old male in the city of Niterói in the State of Rio de Janeiro. His symptoms began on the 29 March and on 31 March he sought medical attention while displaying symptoms of dyspnea, sweating, and hematemesis. He was hospitalized with a diagnosis of suspected typhoid fever and died on 2 April 2016. Laboratory tests were performed for typhoid (no microbial growth culture), dengue (MAC-ELISA: non-reactive; RT-qPCR non-detectable), and yellow fever (MAC-ELISA: non-reactive; RT-qPCR: positive).

Health authorities are conducting an epidemiological investigation in relation to this event, which is expected to clarify the history of yellow fever vaccination and the places visited prior to the onset of symptoms. The information available thus far indicates that the patient was in Angola eight days prior to the onset of symptoms. Results of the virus genome sequencing are expected to indicate whether the virus is of vaccine or wild origin.

In addition, on 22 July 2016, the Brazil IHR NFP reported a new laboratory-confirmed fatal case of yellow fever in the city of Goiânia, State of Goiás. The patient had onset of symptoms on 9 April. The yellow fever laboratory confirmation was made by immunohistochemistry essay. The epidemiological investigation to determine the probable site of infection remains underway.

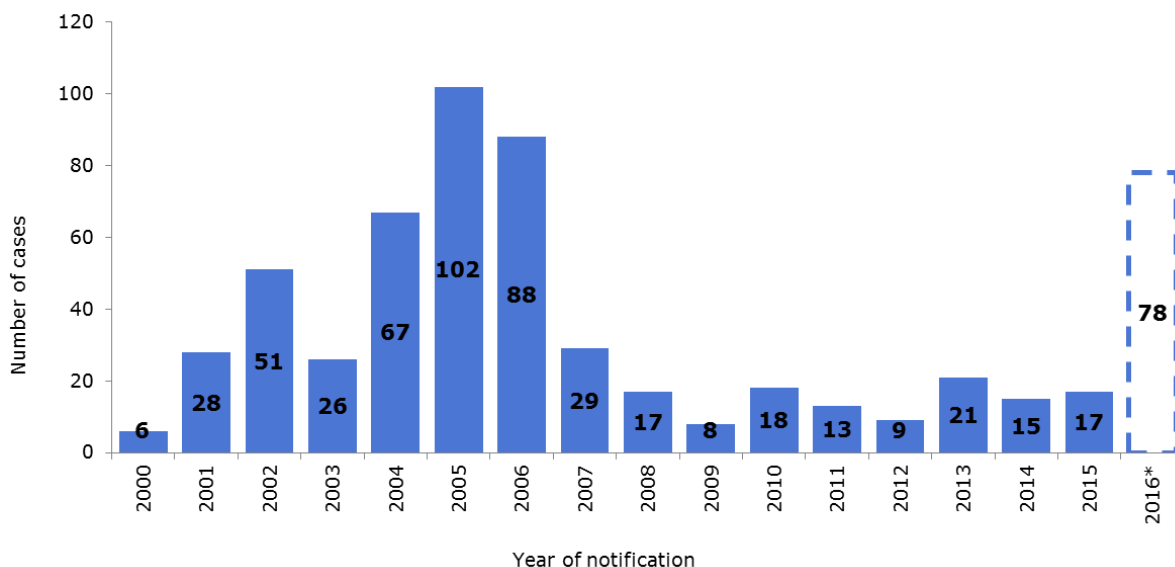
In June 2016, the **Colombia** IHR NFP reported to PAHO/WHO a fatal case of jungle yellow fever in the municipality of La Macarena in the department of Meta, an area endemic for yellow fever.

On 20 July 2016, the Colombia IHR NFP reported a new fatal yellow fever case detected in the Carurú municipality in the department of Vaupés, which is bordered on the east by Brazil. This is the first documented yellow fever case in the department of Vaupés. The case is an 18-year-old male whose symptoms onset on 22 June and who died on 7 July 2016. The case was confirmed for yellow fever in liver tissue by RT-PCR. Health officials are carrying out an epidemiological investigation and have implemented public health prevention and control measures.

In **Peru**, up to EW 28 of 2016, there were 126 suspected cases of jungle yellow fever reported, including 17 deaths. Of the reported cases, 50 were confirmed, 28 were classified as probable, and 48 were discarded. Out of the 25 departments in Peru, cases have been reported in 8 departments, with the department of Junin reporting the most confirmed and probable cases (60 cases).

The number of confirmed and probable cases (78) reported in Peru up to EW 28 of 2016, exceeds the number of cases (confirmed and probable) reported in the previous nine years. (**Figure 1**).

Figure 1. Confirmed and probable jungle yellow fever cases by year. Peru. 2000 - 2016*



*Up to EW 28 of 2016

Source: Published by the National Center for Epidemiology, Disease Control and Prevention in Peru and reproduced by PAHO/WHO.

Situation in other Regions

Since the PAHO/WHO [Yellow Fever Epidemiological Update of 6 July 2016](#) was published, Angola, the Democratic Republic of Congo, and Uganda have continued to report yellow fever outbreaks.

Angola continues to be the country experiencing the largest outbreak, with a total of 3,682 suspected cases reported from December 2015 to 15 July 2016. Of the total cases, 877 were laboratory confirmed and the fatality rate among these cases was 13.3% (117 deaths were laboratory confirmed).

As of 11 July 2016, the Democratic Republic of Congo has reported 1,798 suspected yellow fever cases of which 68 were confirmed (59 imported from Angola).

In addition, cases of yellow fever were exported to China (11 cases) and Kenya (2 cases) due to the exposure of unvaccinated individuals to the yellow fever virus in Angola. Separately, Chad, Ghana, Guinea, and Uganda have reported sporadic outbreaks or cases not related to the outbreak in Angola.¹

Recommendations

PAHO/WHO recommends Member States continue their efforts to maintain high vaccination coverage in the populations at risk. Member States are encouraged to maintain the capacity to detect and confirm yellow fever cases, and at the same time provide updated information and training to health professionals so that they can detect and adequately manage cases, especially in areas where the virus circulation is known to occur.

The recommendations issued in the PAHO/WHO [Yellow Fever Epidemiological Alert of 22 April 2016](#) remain in effect and are available online at: <http://bit.ly/215HUuK>.

References

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4. WHO. Disease Outbreak News (DON). Available at: <http://www.who.int/csr/don/en/>

¹ Information available at: <http://www.who.int/emergencies/yellow-fever/en/>