

# **Epidemiological Update**

Yellow Fever 9 November 2016

### Situation summary in the Americas

- In 2015, three countries in the Americas confirmed circulation of yellow fever virus: Bolivia reported epizootic and Brazil and Peru reported human cases.
- In 2016, as of epidemiological week (EW) 44, three countries had reported jungle yellow fever: Brazil, Colombia, and Peru.

Since the publication of the Pan American Health Organization / World Health Organization (PAHO/WHO) Yellow Fever Epidemiological Update of 14 September 2016 up to EW 44 of 2016, **Brazil** has not reported additional cases of yellow fever. Previously they had reported two autochthonous and one imported from Angola; the autochthonous cases were reported in Bady Bassit in São Paulo state and in the state of Goiás.

In **Colombia**, between EW 1 and EW 43 of 2016, a total of 12 jungle yellow fever cases have been reported (6 laboratory-confirmed and 6 probable). The confirmed cases were reported by the departments of Antioquia, Amazonas, Meta, Vaupés, and Vichada; the latter three of which account for 75% of the total cases reported. The place of origin of infection of the case detected in Amazonas is the municipality of Caballococha, Peru.

The confirmed yellow fever case in the department of Vaupés is the first documented yellow fever case in that department. All of the confirmed cases are male and 66.6% are between the ages of 20 to 29 years. Five out of the six confirmed cases died (case fatality rate, CFR: 83.3%).

The distribution of confirmed and probable cases by department is shown in **Table 1** and in **Figure 1**. Given the confirmation of cases in the Vichada Department (bordering the Bolivarian Republic of Venezuela) as well as in the Choco Department (bordering Panama) there is a risk of the circulation of the virus in both of the bordering countries, especially in areas with the same ecosystem.

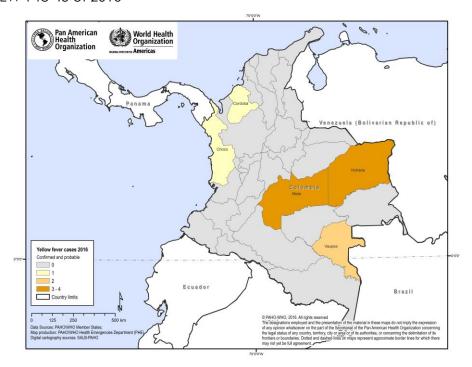
**Table 1**. Distribution of probable and confirmed yellow fever cases by department in Colombia, EW 1 to EW 43 of 2016

Departments	Probable	Confirmed	Total
Meta	2	2	4
Córdoba	1	0	1
Vichada	2	1	3
Vaupés	1	1	2
Chocó	0	1	1
Imported*	0	1	1
Total	6	6	12

\*Caballococha municipality, Peru

**Source:** The Colombia National Institute of Health Epidemiological Bulletin of EW 35 and provided by the Ministry of Health to PAHO/WHO. Interim data subject to change.

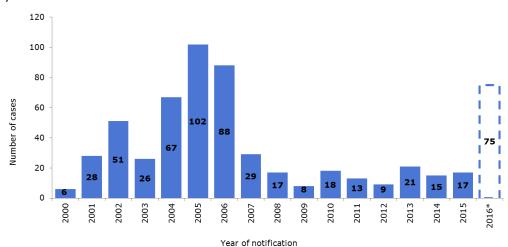
**Figure 1**. Distribution of confirmed and probable jungle yellow fever cases by department. Colombia. EW 1 to 43 of 2016



**Source:** The Colombia National Institute of Health Epidemiological Bulletin of EW 43 and provided by the Ministry of Health to PAHO/WHO. Interim data subject to change.

In **Peru**, up to EW 42 of 2016, there were 75 cases of jungle yellow fever reported. Of the reported, 62 were confirmed and 13 were categorized as probable. Out of the 25 departments in Peru, cases have been reported in 9 departments, with the department of Junin reporting most of confirmed and probable cases (50 cases).

The number of confirmed and probable cases reported in Peru between EW 1 and EW 42 of 2016 (75), exceeds the number of cases (confirmed and probable) reported in the previous nine years (**Figure 2**).



**Figure 2**. Confirmed and probable jungle yellow fever cases by year. Peru. 2000 - 2016 (up to EW 42)

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

## Situation in other Regions

As indicated in the PAHO/WHO <u>Yellow Fever Epidemiological Update of 26 July 2016</u>, the countries outside of the Region of the Americas who reported yellow fever outbreaks in 2016 are: Angola, the Democratic Republic of Congo, and Uganda.

In Angola, the last confirmed case of yellow fever had symptom onset on 23 June 2016. Since then, no new cases have been confirmed. As of 20 October, two new suspected cases were reported. The vaccination campaign of at risk populations remains in effect (phase II).

In the Democratic Republic of Congo the last confirmed urban yellow fever case had onset of symptoms on 12 July 2016. Since then until 26 October 2016, a new case of jungle yellow fever was confirmed and 14 probable cases remain under investigation.

In Uganda, they declared the end of their yellow fever outbreak on 6 September; this outbreak was not related to the outbreak in Angola.

In addition, as a result of the exposure of unvaccinated persons to the yellow fever virus in Angola, cases of yellow fever were exported to China (11 cases) and Kenya (2 cases).

The situation generated by unvaccinated travelers to areas where there are active outbreaks of yellow fever poses a potential risk of introduction of the virus to areas where the risk factors of yellow fever (human susceptibility, prevalence of the competent vector and animal reservoirs) are present.

#### **Recommendations**

The recommendations indicated in the PAHO/WHO <u>Yellow Fever Epidemiological Update</u> of 26 July 2016 remain in effect.

#### References

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