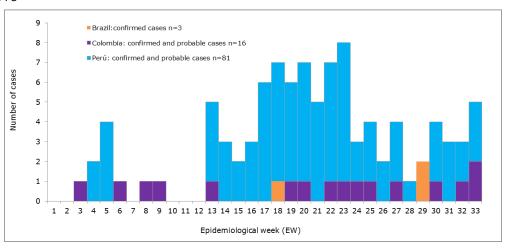
Epidemiological Update

Yellow Fever 14 September 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) 34, three countries had reported jungle yellow fever: Brazil, Colombia, and Peru. Distribution of cases by epidemiological week (EW) is presented in **Figure 1**.

Figure 1. Distribution of jungle yellow fever cases by EW in three countries in the Americas. EW 1 to 33 of 2016



Source: Data provided by Member States to PAHO/WHO

Between EW 1 and EW 34 of 2016, **Brazil** has reported three cases of yellow fever, 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 35 of 2016, a total of 17 jungle yellow fever cases have been reported (5 laboratory-confirmed and 12 probable). The confirmed yellow fever case in the department of Vaupés is the first documented yellow fever case in that department. Of the total cases, 82% are male (14 cases) and 47% of the total (8 cases) are between the ages of 25 to 29 years. Four of out of 17 cases are indigenous. Four out of five of the confirmed cases died (case fatality rate, CFR: 80%).

The distribution of confirmed and probable cases by department is shown in **Table 1** and in **Figure 2**. Given the confirmation of cases in the Vichada Department (bordering the Bolivarian

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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.

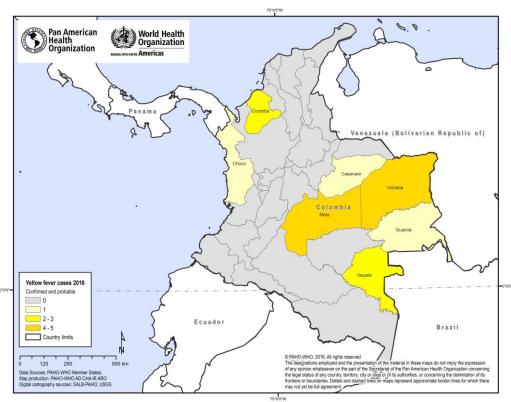
Table 1. Distribution of probable and confirmed yellow fever cases by department. Colombia. 2016

Departments	Probable	Confirmed	Total
Meta	3	2	5
Córdoba	3	0	3
Vichada	3	1	4
Vaupés	1	1	2
Casanare	1	0	1
Chocó	0	1	1
Guainia	1	0	1
Total	12	5	17

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.

Furthermore, between April and May 2016, three Municipalities in the Department of Meta (La Macarena, Puerto Concordia, and Puerto Rico) reported epizootics in non-human primates. The municipality of La Macarena is an area characterized by a significant influx of foreign and domestic tourists.

Figure 2. Distribution of confirmed and probable jungle yellow fever cases by department. Colombia. EW 1 to 35 of 2016



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.

Yellow fever in Colombia in the last 10 years

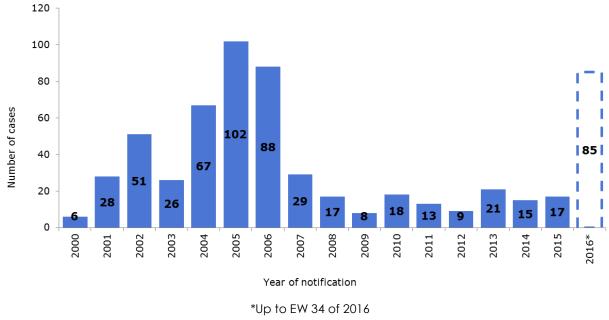
In 2005, coinciding with the occurrence of the El Niño Southern Oscillation (ENSO), Colombia reported a total of 20 confirmed cases of jungle yellow fever. The cases were recorded in the departments of Caqueta (10 cases), Putumayo (8 cases), Guaviare (1), and Santander (1). Between 2006 and 2008, Colombia reported 15 cases of jungle yellow fever (CFR: 100%) in the departments of Caquetá, Casanare, Guaviare, Meta, Norte de Santander, Putumayo, and Vichada. In 2009, 5 cases of jungle yellow fever were confirmed in the department of Meta.

Between 2010 and 2012, no cases of yellow fever were reported in Colombia. In 2013, a case was recorded in the department of Caqueta. No cases were reported between 2014 and 2015.

In **Peru**, up to EW 34 of 2016, there were 85 cases of jungle yellow fever reported. Of the reported, 62 were confirmed and 23 were categorized as probable. Out of the 25 departments in Peru, cases have been reported in 8 departments, with the department of Junin reporting most of confirmed and probable cases (57 cases). The jungle yellow fever outbreak in Junin is confined to 11 districts of the provinces of Chanchamayo and Satipo.

The number of confirmed and probable cases reported in Peru between EW 1 and EW 34 of 2016 (85), exceeds the number of cases (confirmed and probable) reported in the previous nine years (**Figure 3**). The cases are mostly in young adults and economically active persons, between the ages of 25 to 49 years (52 out of 85 cases). The majority of the cases are: farmers, informal miners, and persons who entered into the jungle area.

Figure 3. Confirmed and probable jungle yellow fever cases by year. Peru. 2000 - 2016*



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, no new cases of yellow fever have been reported since 23 June 2016. As of 1 September, the situation remains stable, with the number of reported suspected cases remaining low in the previous month. The vaccination campaign of at risk populations remains in effect. A total of 4,949 cases were reported between 5 December 2015 and 1 September 2016; of these 884 were laboratory confirmed.

As of 8 September 2016, the Democratic Republic of Congo has not reported additional yellow fever cases since 12 July. Between 1 January and 8 September of 2016, a total of 2,678 cases were reported; of these 75 were laboratory confirmed. The preliminary results of the vaccination campaign indicate that high levels of coverage were reached.

Uganda declared the end of their outbreak of yellow fever 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).

On 31 August, the WHO Director General convened the Emergency Committee under the International Health Regulations concerning yellow fever to assess the situation. Based on the recommendations by the Emergency Committee, the Director General decided that the yellow fever outbreak in Angola and the Democratic Republic of Congo does not constitute a Public Health Emergency of International Concern (PHEIC). The complete announcement is available at: http://www.who.int/emergencies/yellow-fever/mediacentre/webcast-31-8-2016/en/#.

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.

Vaccine supply

For years the global supply of yellow fever vaccine has been insufficient. Through the PAHO/WHO Revolving Fund about 50% of the demand received through this mechanism is met. The Revolving Fund assigns the allocation of the available supplies to countries based on epidemiological risk. Together with the WHO and UNICEF, the Revolving Fund jointly participates in meeting the challenges of vaccine supply.

The outbreak in Angola has reduced existing supplies of yellow fever vaccine. During outbreaks, the available vaccine doses are given priority to respond to emergencies. At the end of March 2016, thanks to the collaboration of partners such as the International Coordination Group (ICG) and UNICEF the global stockpile of yellow fever vaccines for emergencies was replenished.

Recommendations

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

References

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