17 Jan 2018

**Yellow fever outbreak Brazil: Updated recommendation for Sao Paulo state/city**

*In addition to existing and expanded risk areas, the entire state of São Paulo, Brazil should also be considered at risk for yellow fever transmission*

The outbreak of yellow fever (YF) that occurred in 21 Brazilian states between December 2016 and June 2017 resulted in 777 confirmed human cases, 261 deaths and 1,659 epizootics (outbreaks in non-human primates – monkeys). During the winter months in Brazil (June to September), yellow fever activity subsided, with fewer cases reported. However, between July 2017 and January 2018 an increase in the level of YF virus activity in monkeys, and associated human infection, was reported in some states [1]. The majority of YF activity in monkeys was reported in São Paulo state, where outbreaks continued despite unfavourable climatic conditions for transmission. Some outbreaks were reported in municipalities not previously considered at risk of YF [1-3]. Of the eleven human cases of YF reported in Brazil between July 2017 and early January 2018, eight (with two deaths) were reported from São Paulo state [1].

A case of YF has recently been reported in a traveller from the Netherlands, who had stayed in Maripora, a municipality in the São Paulo metropolitan region during December 2017. The traveller was hospitalised in the Netherlands on his return from Brazil and has made a complete recovery; he had no history of YF vaccination before his trip [4].

Because of the increased level of YF virus activity across the state of São Paulo, the entire state should now also be considered at risk for yellow fever transmission (in addition to other parts of Brazil known to be at risk of YF transmission), and YF vaccination should be recommended for travellers visiting any area in São Paulo state [1], following routine risk assessment.

Updated recommendation for YF vaccination for São Paulo state and other parts of Brazil can be found on the [Brazil: Country Information page](https://travelhealthpro.org.uk).

Public health responses in Brazil include enhanced surveillance and disease monitoring, and vaccination campaigns are continuing throughout Brazil. A mass vaccination campaign targeting the populations of several states, including some municipalities of São Paulo state, will take place between February and March 2018 [2,5].

The expansion of risk areas during this outbreak is evolving and further updates will be given when information becomes available.

**Advice for travellers**

Yellow fever is transmitted to humans via the bite of an infected mosquito. You should take insect bite avoidance measures, day and night, when visiting countries with a risk of any disease transmitted by insects, including YF.

Although there is no requirement for a certificate of vaccination for entry to Brazil (unless arriving from specified other countries with YF risk), YF vaccination is recommended for your personal protection if you are travelling to risk areas in Brazil, including travel to any part of São Paulo state.
You should seek advice from a health professional regarding recommendation for vaccination.

One dose of YF vaccine will, in most circumstances, provide lifelong protection against this disease. You should seek advice from a health professional if you need to clarify your vaccination status.

You can search for a YF Vaccination Centre (YFVC) on the NaTHNaC YFVC database on the Yellow Fever Zone. Full details of yellow fever vaccination recommendations can be found on our Country Information pages; Travellers are reminded that countries may change their certificate requirements at short notice.

Advice for health professionals

Brazil is a country classified by the World Health Organization (WHO) as having evidence of persistent or periodic yellow fever virus transmission. YF vaccination is recommended for all travellers to risk areas [6].

As of 16 January 2018, the WHO Secretariat has determined that, in addition to the areas listed in previous updates, the entire state of São Paulo should also be considered at risk for YF transmission [1]. YF vaccination is recommended for international travellers to any part of São Paulo state. In addition, scrupulous mosquito bite avoidance should be advised.

NaTHNaC Country specific information, including vaccine recommendations, certificate requirements and details on current outbreak situations can be accessed on the Brazil Country Information page.

YF certificate requirements are not necessarily connected to the risk of disease for a traveller.

Resources

- Pan American Health Organization/World Health Organization: Yellow fever

References

1. World Health Organization: Updates on yellow fever vaccination recommendations for international travelers related to the current situation in Brazil. 16 January 2018
6. International Travel and Health. List of countries, territories and areas: Vaccination requirements and recommendations for international travellers, including yellow fever and malaria. World Health Organization 16 February 2017