c Yellow fever

Yellow fever is endemic in the Amazon Basin in South America that comprises much of northwestern Brazil, about 40% of the country. In the rain forest the virus circulates in monkeys, transmitted by *Haemagogus* mosquitoes. Human infection associated with this sylvatic cycle occurs at low frequency in unimmunized people when they are exposed to infected mosquito vectors through working in forested areas. Periodically, approximately every seven years, there are ‘spillover’ epidemics in rural areas bordering the endemic enzootic forest during hot and rainy periods, from September to March.

Since December 2016 there has been an outbreak in southeastern Brazil, predominantly in Minas Gerais State (84% of cases), and to an extent in the states of Bahia, Espirito Santo, Rio Grande do Norte, São Paulo and Tocantins. Between 1 December 2016 and 22 February 2017, there were more than a thousand suspected cases of yellow fever reported of which 292 were confirmed, with 101 deaths amongst confirmed cases (35%).

These rural outbreaks typically decline spontaneously after some time as population immunity increases. The decline is normally hastened by mass yellow fever vaccination. Of concern is the risk of urban ‘spillover’, with infection of *Aedes* mosquitoes and rapid spread in densely populated urban areas. A mass vaccination campaign is ongoing in affected areas. A yellow fever vaccination is a requirement for all travellers between South Africa and Brazil.


**Source:** Centre for Emerging and Zoonotic Diseases, NICD-NHLS; (januszp@nicd.ac.za)

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