

**RECRUDESCENCE OF YELLOW FEVER IN SOUTHEASTERN BRAZIL:
POSSIBLE IMPACTS OF RECENT CHANGES IN IMMUNIZATION
POLICIES FOR YELLOW FEVER CONTROL IN ENDEMIC COUNTRIES****Guilherme Côrtes Fernandes**

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The prevention of sylvatic and urban cases of yellow fever (YF) depends on high vaccination coverage. In Brazil, after control of urban YF in the first half of the 20th century, and the ensuing progressive reduction in the risk of acquiring the disease in the southeast region of the country, YF vaccination was restricted to the north and central regions. In the last two decades there was evidence of higher YF virus circulation in the southeast, which prompted the expansion of areas with YF vaccination recommendation. However, a simultaneous increase in concerns over vaccine reactogenicity limited the reach of such expansion. Vaccination coverage remained low in the southeast, allowing for the occurrence of the largest YF outbreak in decades in 2017-2018, with a daunting risk of reintroduction of YF in densely populated urban areas infested with *Aedes aegypti*. On the verge of having to vaccinate millions of people in a short timeframe, and considering the risk of vaccine shortage, the Brazilian Ministry of Health started reactive vaccination campaigns in areas where the vaccine was not previously recommended. It also changed the recommendation from two doses for children, followed by a booster dose at 10-year intervals, to the WHO recommendation of a single dose for life. In regions with suboptimal vaccination coverage undergoing outbreaks, such as the state of Minas Gerais, there were restrictions to access for children and adults with history of vaccination, and, as such, a broad reactive vaccination was not implemented. Broad, non-restrictive reactive vaccination was only offered in areas without prior recommendation for YF vaccination. On the first two months of the current outbreak, 11 confirmed cases of YF were reported in individuals with history of vaccination in the state of Minas Gerais. A review was done of available evidence on immunogenicity, reactogenicity and duration of humoral and cellular immunity of YF vaccines in adults and children to assess issues related to the current strategies and public policies adopted by the Brazilian immunization program to control the disease.

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