

Ongoing surveillance and vaccination are key to prevent yellow fever outbreak in humans

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A combination of continuous monitoring of mosquitoes and non-human primate deaths, along with laboratory tests and increased vaccination, is crucial to prevent human cases of yellow fever in places where the virus is transmitted. Findings from a brief research report are published in *Annals of Internal Medicine*.

Yellow fever is a virus found in South America and Africa that is transmitted by [infected mosquitoes](#). Transmission typically occurs in wild animals, but occasionally spills over to humans entering forest regions. Still, urban transmission is rare, mainly due to vaccination. Recently, concerns about reemergence of urban yellow fever have grown because of the reappearance and rapid spread of *A aegypti* (a type of mosquito that may carry yellow fever) in the urban environment. Further, immunization coverage for yellow fever is insufficient because it is usually administered to high-risk populations.

Researchers from the Instituto Goncalo Moniz studied the 2017 epizootic outbreak (outbreak within animals) of yellow fever in Salvador, Brazil to determine the risk for human disease. The researchers studied the temporal and spatial distribution of the yellow fever virus outbreak affecting non-human primates (small monkeys) in Salvador, by geocoding the places where the monkeys were found dead. They also collected mosquitoes at such places to investigate potential vectors. The authors found that cases of yellow fever in [non-human primates](#) in densely urbanized areas posed a considerable risk for disease resurgence in humans because of the high prevalence of the *A aegypti*

and *A albopictus* mosquitoes. Salvador has long been an epicenter of dengue transmission and more recently of Zika and chikungunya viruses, all with *A aegypti* as the main vector.

The authors conclude that surveillance and increased vaccination, even among those not considered at high risk for infection, could help to prevent human cases of [yellow fever](#) in Brazil.

More information: *Annals of Internal Medicine* (2017).
<http://annals.org/aim/article/doi/10.7326/M17-1949>

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