

## Low Zika risk for travelers to Olympics in Brazil, study finds

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The Zika virus poses a negligible health threat to the international community during the summer Olympic Games that begin next month in Rio de Janeiro, Brazil, according to researchers at Yale School of Public Health (YSPH).

In a worst-case scenario, an estimated 3 to 37 of the thousands of athletes, spectators, media, and vendors traveling to Rio for the Olympics will bring the Zika virus back to their home countries, the researchers concluded.

The findings support the position of the World Health Organization, which has said that travel to and from the Olympics will not play a significant role in the international spread of Zika. However, the findings are contrary to a recent recommendation by 150 members of the international academic community to cancel or relocate the Games on the grounds of preventing the spread of Zika. Some athletes have also said they will not travel to Rio to compete due to health concerns associated with Zika.

"It's important to understand the low degree of risk posed by the Olympics in the scheme of many other factors contributing to international Zika virus spread," said Joseph Lewnard, a doctoral candidate at the school and the paper's lead author. The findings were published online in *Annals of Internal Medicine*.

Lewnard, along with Professor Albert Ko, M.D., and Gregg Gonsalves,



co-director of the Yale Global Health Justice Partnership and a <u>doctoral</u> <u>candidate</u> at YSPH, constructed a mathematical model that accounted for recent Zika transmission in Rio de Janeiro, seasonal conditions, and travel patterns, among other factors.

Over half of visitors attending the Olympics are expected to return to high-income countries where there is negligible risk for establishing local spread of the virus, say the researchers. Around 30% will travel to Latin American countries where transmission is already established, so they will not play an important role in further spreading the virus, they note.

"The possibility that travelers returning from the Olympics may spread Zika has become a polemic issue that has led to athletes dropping out of the event, and without evidence, undue stigmatization of Brazil. This study provides data, which together with initial findings from Brazilian scientists, show that these concerns may be largely exaggerated," said Ko, chair of the Department of Epidemiology of Microbial Diseases at YSPH.

It is projected that the Olympic Games could draw as many as 500,000 visitors to Rio, where it is currently winter and mosquito activity has subsided. The mosquito-borne Zika <u>virus</u> arrived in Brazil about two years ago and has since spread rapidly throughout the country and much of the hemisphere. The disease is associated with microcephaly, a congenital disorder marked by a smaller-than-average head, as well as Guillain-Barre syndrome, an autoimmune condition. Many who are infected exhibit mild symptoms or no signs of illness at all.

Lewnard said that it is important that policymakers and the public have accurate information about <u>health</u> concerns associated with travel to Brazil.



"Communicating evidence-based assessments is a priority to ensure effective <u>public health</u> responses are targeted to where they are needed most," he said

**More information:** *Annals of Internal Medicine*, <u>www.annals.org/article.aspx?doi=10.7326/M16-1628</u>

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