

EDITORIAL

Zika Virus Disease (ZVD) and the Rio Olympics: Is it safe for athletes to go?

In August 2016, the Rio Olympic Games start and there are global concerns on the risk of athletes and visitors contracting the Zika Virus Disease (ZVD) during the games and spreading it to the rest of the globe. From various sources, there are calls for the 2016 Olympics to be postponed, moved from Brazil, which is at the epicentre of the current ZVD epidemic, or both. What is known is that Brazil is one of sixty countries and territories which to date report “continuing” transmission of the Zika virus by the *Aedes* mosquitoes.¹ An estimated 440 000 to 1.3 million Zika virus infections have occurred in Brazil, and the virus has spread to several neighbouring countries.²

There is mounting clinical evidence that Zika infection is associated not just with paediatric microcephaly and brain damage, but also with adult conditions such as Guillain-Barré syndrome³ and acute disseminated encephalomyelitis.⁴ On 28 May 2016, the World Health Organization (WHO) released a media statement with the following advisory for those considering travel to the Olympics¹:

- Follow the travel advice provided by the country’s health authorities, and consult a health worker before travelling.
- Whenever possible, during the day, protect themselves from mosquito bites by using insect repellents and by wearing clothing – preferably light-coloured – that covers as much of the body as possible.
- Practise safer sex (for example, use condoms correctly and consistently) or abstain from sex during their stay and for at least eight weeks after their return, particularly if they have had or are experiencing symptoms of Zika virus infection.
- Choose air-conditioned accommodation (where windows and doors are usually kept closed to prevent the cool air from escaping, and where mosquitoes cannot enter the rooms).
- Avoid visiting areas in cities and towns with no piped water or poor sanitation (ideal breeding grounds of mosquitoes), where the risk of being bitten by mosquitoes is higher.

The challenges faced by the WHO advisory are obvious. First, it places the onus on various countries’ health authorities and individual healthcare workers to be knowledgeable about ZVD in order to advise athletes or visitors on whether to travel to Brazil. The advice on the use of insect repellent sounds reasonable, however, clothing that covers as much of the body as possible is difficult for athletes, when one considers that the athletes’ outfits usually only cover certain parts of the body. The advice to practise safer sex or abstain from sex is difficult to monitor, as sexual activities are private in nature. The choice of air-conditioned accommodation may be possible for athletes but not realistic for many visitors who may opt for cheaper accommodation (without air-conditioners). In addition, the WHO presupposes that the athletes will not leave their game villages except when they take part in their respective events. However, the *Aedes* species mosquitoes (*A. aegypti* and *A. albopictus*) that transmit the disease usually bite during the mornings and late afternoons, when most events take place.

Therefore, the WHO advisory places the athlete or visitor in a conundrum on whether to attend the Rio Olympics. What is worrying is the deafening silence by most athletic bodies or organisations who have not voiced their concerns on their attendance of this global event. What is more important? The investment that Brazil may lose if this global event is postponed or moved from the country, or exposure of athletes and visitors to ZVD and the possible global spread of the disease?

Some of the arguments to postpone or move the Rio Olympics from Brazil emerge from a special commentary, which highlights the following reasons.⁵

- Rio de Janeiro is more affected by Zika than anyone expected, rendering earlier assumptions of safety obsolete. (The Zika incidence rate is 157 per 100 000.)
- Although Zika virus was discovered seventy years ago, the viral strain that currently affects Brazil is clearly new, different, and vastly more dangerous than the “old” Zika virus.
- An estimated 500 000 foreign tourists will flock to the Rio games, potentially becoming infected, and returning to their homes, where both local *Aedes* mosquitoes and sexual transmission can establish new outbreaks.
- Proceeding with the Games violates what the Olympic stands for i.e. “*Olympism seeks to create...social responsibility and respect for universal fundamental ethical principles.*”

I don’t want to sound alarmist but having 500 000 people attend the Rio Olympic games from all over the globe is tantamount to a “mass migration” into the heart of the Zika virus epidemic and that cannot be justified from a public health perspective. The Brazilian Health Minister reassured athletes and visitors that August is a low transmission month for the *Aedes* mosquitoes but fell short of pronouncing absolute non-transmission of the Zika virus infection during that period. Each country must assess the risk of allowing its athletes and nationals to Rio de Janeiro for the Olympics, considering the likely exposure to ZVD, and thereafter, managing imported ZVD in their countries. This will result in rapid global spread of Zika beyond the sixty countries and territories which to date report continuing transmission. Let us err on the side of caution and postpone and/or move the event from Brazil!

References

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