

- medication nonadherence: response to authors. *J Clin Epidemiol*. 2011 Mar;64(3):255 – 7. discussion 258 – 63.
13. WHO. Noncommunicable diseases: Campaign for action – meeting the NCD targets [cited 2018 Apr 15]. Available from: <http://www.who.int/beat-ncds/take-action/targets/en/>
14. Advika TS, Idiculla J, Kumari S J. Exercise in patients with Type 2 diabetes: Facilitators and barriers - A qualitative study. *J Family Med Prim Care*. 2017 Apr-Jun;6(2):288-92.
15. Basu S, Garg S. The barriers and challenges toward addressing the social and cultural factors influencing diabetes self-management in Indian populations. *J Soc Health Diabetes*. 2017;5(2):71-6.

Social responsibility and global health: Lessons from the Rio Olympics Zika controversy

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Abstract

The outbreak of Zika virus infection in the Americas and its possible association with microcephaly raised several concerns among global health authorities regarding the organisation of the Olympic and Paralympic Games scheduled for August and September 2016, in the city of Rio de Janeiro, Brazil. It generated an international controversy over the continuation of the Games with debates on the ethical principle of social responsibility. Based on the principles of social responsibility and health in the Universal Declaration of Bioethics and Human Rights, the present comment ponders on the application of such principles in the context of mega-events and global health.

The year 2016 started on the disturbing note of a possible Zika virus pandemic in the Americas, as reported by the World Health Organisation (WHO) (1). Following the news of the infection, the US Centers for Disease Control and Prevention advised pregnant women to refrain from traveling to the sites affected by Zika virus due to a possible association between the infection and microcephaly (2). The Zika virus epidemic caused great concern among global health authorities, given the fact that the Olympic and Paralympic Games were scheduled to be held in August and September 2016, in Rio de Janeiro, Brazil. Subsequently, a heated international controversy

erupted, based on the principle of social responsibility, over whether the Games should be held in Brazil or not.

The disagreement within the international scientific community intensified in May 2016 when a group of 177 scientists, mostly from the areas of bioethics and public health, from 28 different countries, including one from Brazil, sent an open letter to the WHO (3). The authors of the letter, led by Amir Attaran, argued that holding the Games in Rio would be “unethical” and proposed that “in the name of public health” the 2016 Olympic Games should be transferred from the country or postponed due to the uncertainties regarding the threat of Zika virus (3).

The WHO responded on May 28 that “there is no public health justification for postponing or canceling the Games”. This was because the vast majority of healthy individuals who had become infected by Zika virus were asymptomatic, or the period in which the Olympics would be held in Brazil is not considered as endemic to the transmission of diseases caused by *Aedes aegypti* such as Zika, dengue and chikungunya (4). Thus, according to the WHO and, soon after, the International Olympic Committee, to cancel or change the location of the 2016 Olympics would not significantly alter the international spread of Zika virus (4).

Also, in response to the open letter from Attaran and colleagues, the Brazilian scientists immediately presented epidemiological information to state that “Zika is not a reason for missing the Olympic Games in Rio de Janeiro” (5). Immediately after this, the Brazilian Society of Bioethics (SBB) issued a critical note based on epidemiological, immunological and ethical arguments stating that, with all due respect to the possible good intentions of the scientists, it clearly disagreed with the proposal (6). Among other arguments, the SBB recalled a similar concern during the dengue epidemic preceding the Football World Cup held in Brazil in 2014, when the situation had been more severe. Besides, there was no scientific evidence of increased prevalence in other countries related to the return of tourists after that event (6). After the events reported above, in June 2016, a new epidemiological study attested that arguments for cancellation, postponement or transfer of the games “are not based on evidence, and they largely ignored current

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trends in disease transmission.”(7: p.384)

We can use the principle of social responsibility to derive lessons from the ethical debate generated by this issue to reflect on global health. For the International Olympic Committee “Olympism seeks to create a way of life based on[...] social responsibility and respect for universal fundamental ethical principles” (8: p.11). However, Amir Attaran, the main author of the letter, asked the following question: “But how socially responsible or ethical is it to spread disease? [...]. Putting them [people from poor countries with inadequate public health systems] at risk for Games that are, essentially, bread and circuses seem ethically questionable.”(9)

Therefore, discussing and reflecting on the interpretation and understanding of the principle of social responsibility in regard to mega events like the Rio Olympics of 2016 is essential. Based on the Universal Declaration of Bioethics and Human Rights signed by 186 countries, it is possible to think more clearly about ethical principles for global health (10). Article 14 of the Declaration, entitled “Social responsibility and health”, states:

The promotion of health and social development for their people is a central purpose of governments that all sectors of society share. Taking into account that the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction [...], progress in science and technology should advance: (a) access to quality health care and essential medicines [...]; (b) access to adequate nutrition and water; (c) improvement of living conditions and the environment; (d) elimination of the marginalization and the exclusion of persons on the basis of any grounds; (e) reduction of poverty and illiteracy. (10)

It is worth noting that the WHO Emergency Committee on Zika and microcephaly that gathered on September 1, 2016, officially stated that no cases of Zika virus infection were reported during the Olympic Games in Rio, while emphasizing that before its geographic expansion the virus continued to represent a global public health emergency (11). Therefore, the arguments of the scientists who were signatories to the letter demanding cancellation or shifting of the games were not sufficiently based on scientific evidence (5,7); and although their concerns regarding possible global transmission of the Zika virus and microcephaly can be seen as legitimate, their demands, if accepted, would indeed have been a case of violating social responsibility, as no such high risk of spread of the epidemic existed.

It is important to note that the prevalence of infants with microcephaly is higher in poorer areas (12-14) as revealed in the survey report of the Secretary of Social Development, Child and Youth of Pernambuco, Brazil. The report cited in the newspaper *TV Jornal*, mentions that 77% of mothers with babies with microcephaly, in that state, live below the extreme poverty line (15). “The chance of having a developmental delay increases to 90-100% when a child is exposed to a number of 6-7 risk factors like poverty [...]” (15:p.30). This also reinforces our argument that the alarm raised in the Open Letter was

rather misplaced, as it is difficult to maintain that travelers who attended the Games came from poor areas.

All this reveals the importance of having consistent data and the participation of stakeholders from the affected countries/ regions during epidemics, so that any differences of opinion about the evidence and its implications for the local and global populations are discussed transparently, documented and put out in the public domain; and decisions are made based on a real understanding of the principle of social responsibility.

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References

1. World Health Organisation. WHO Director General briefs Executive Board on Zika situation. 2016 Jan 28[cited 2016 Feb 20]. Available from: <http://who.int/dg/speeches/2016/zika-situation/en/>.
2. Petersen EE, Staples JE, Meaney-Delman D, Fischer M, Ellington SR, Callaghan WM, Jamieson DJ. . Interim guidelines for pregnant women during a Zika virus outbreak- United States. *MMWR Morb Mortal Wkly Rep.* 2016;65:30-3.
3. Attaran A, Caplan A, Gaffney C, Igel L. El Mundo Pidenen carta posponer o cancelar juegos olímpicos en Brasil por Zika. 2016[cited 2016 May]. Available from: <http://www.infolliteras.com/articulo.php?id=32348>. Spanish.
4. World Health Organisation. Public health advice regarding the Olympics and Zika virus. Accessed on:28 may 2016. Available from: <http://www.who.int/mediacentre/news/releases/2016/zika-health-advice-olympics/en/>
5. Codeço C, Villela D, Gomes MF, Bastos L, Cruz O, Struchiner C, Carvalho LM, Coelho F. Instituto Oswaldo Cruz. Zika is not a reason for missing the Olympic Games in Rio de Janeiro: response to the open letter of Dr. Attaran and colleagues to Dr. Margaret Chan, Director-General, WHO, on the Zika threat to the Olympic and Paralympic Games. *Mem Ins Oswaldo Cruz.* 2016 Jun;111(6):414-5.
6. Sociedade Brasileira de Bioética. Carta aberta a todos os participantes nos Jogos Olímpicos e Paralímpicos do Rio de Janeiro 2016[cited 2016 July 26]. Available from: [http://www.sbbioetica.org.br/Carta Aberta a todos os participantes nos Jogos Olímpicos e Paralímpicos do Rio de Janeiro 2016](http://www.sbbioetica.org.br/Carta%20Aberta%20a%20todos%20os%20participantes%20nos%20Jogos%20Olimpicos%20e%20Paralimpicos%20do%20Rio%20de%20Janeiro%202016). Portuguese
7. Castro MC. Zika virus and the 2016 Olympic Games: Evidence based projections derived from dengue do not support cancellation. *Travel Med Infect Dis.* 2016;14(4):384-8.
8. International Olympic Committee. Olympic Charter. Lausanne, Switzerland: IOC; 2017[cited 2017 Sep 20] Available from: <https://stillmed.olympic.org/media/Document%20Library/OlympicOrg/General/EN-Olympic-Charter.pdf>
9. Attaran A. Off the podium: why public health concerns for global spread of Zika virus means that Rio de Janeiro's 2016 Olympic Games must not proceed. *Harvard Public Health Review.* Special Commentary. 2016 [cited 2016 Jul 26]. Available from: <http://harvardpublichealthreview.org/off-the-podium-why-rios-2016-olympic-games-must-not-proceed/>.
10. UNESCO. Universal Declaration on Bioethics and Human Rights. Paris: 2005 Oct 19[cited 2016 Jul 20]. Available from: http://portal.unesco.org/es/ev.php-URL_ID=31058&URL_DO=DO_TOPIC&URL_SECTION=201.html.
11. World Health Organisation. Fourth meeting of the Emergency Committee under the International Health Regulations (2005) regarding microcephaly, other neurological disorders and Zika virus. 2016 Sep 2 [cited 2016 Sept 20]. Available from: <http://www.who.int/mediacentre/news/statements/2016/zika-fourth-ec/en/>.
12. Castellanos JE. Zika, evidencia de la derrota en la batalla contra Aedes aegypti. *Biomédica.* 2016;36(1):5-9. Spanish.
13. Schram PCF. [Zika virus and public health]. *J Hum Growth Dev.* 2016;26(1):7-8. Portuguese.
14. Camargo OAK. Children are the future - their development matters. Report. *Brazilian Journal of Medicine and Human Health.* 2016;4(1). [First International Developmental Pediatrics Congress; 2015; Dec. 2-5; Turkey]. Available from: <https://www5.bahiana.edu.br/index.php/medicine/article/view/770>

15. 77% of the families of babies with microcephaly live below the poverty line. *TV Jornal*. 2016 Feb 24 [cited 2016 Feb 26]. Available from: http://tvjornal.ne10.uol.com.br/noticia/ultimas/2016/02/24/77_porcentodas-

familias-de-bebes-com-microcefalia-vivem-abaixo-da-linha-dapobreza-23147.php. Portuguese.

Errata

In the July-September, 2018, issue of *IJME*, in the Comment titled "National Ethical Guidelines for Biomedical and Health Research Involving Human Participants, 2017: A commentary" by Roli Mathur and Soumya Swaminathan on pages 201 to 204, References 4 and 5 were wrongly numbered. This has been corrected in the online version on September 21, 2018. The correction may be noted.