

## Lives on the line: the impact of the Olympics and Paralympics on global public health

Vidas em jogo: reflexões sobre o impacto das Olimpíadas e Paralimpíadas para a saúde pública mundial

Vidas en juego: reflexiones sobre el impacto de las Olimpíadas y Juegos Paralímpicos para la salud pública mundial

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As the world nears the completion of two years in confronting COVID-19, the main public health emergency of the 21st century, pressures and efforts are mounting worldwide to resume activities. In the search for the so-called “new normal”, more and more plans are being developed to live with the virus in various social dimensions.

However, despite the efforts, there is widespread misunderstanding of the risks on the potential spread of the virus and its frequent mutations in populations, associated with lack of orientation concerning what is still low coverage of global vaccination and even the limitations of the vaccines currently in use. Furthermore, little has been said about the process of rehabilitation and care for persons that develop prolonged symptoms related to long COVID-19 or post-COVID syndrome, indicating a worrisome scenario in the medium and long term and great need for reorganization of healthcare services <sup>1</sup>.

Events that have received support by governments and a large share of the world population feature the major sports competitions. Holding such events has been defended by organizations and governments, based not only on professional and economic issues – related to the athletes, staff, and other parties involved – but also citing the need to improve the population’s mental health. Thus, the return to these nonessential activities is viewed as necessary for the population’s entertainment, notwithstanding the risks they may pose for those involved directly in the event, but also for the entire global population, still grappling with high spread and circulation of SARS-CoV-2.

A prime example was Copa America, the football tournament held in Brazil from June 13 to July 10, 2021, even as the numbers of COVID-19 infections were breaking records in the host country, reaching more than 100,000 new cases in 24 hours and a daily average of 1,500 COVID-19 deaths, a scenario marked by major under-notification, suggesting an even more serious epidemiological situation. Copa America led to an increase in new cases and the arrival of an unprecedented variant in Brazil, identified as strain B.1.612, originating from Colombia.

However, despite the recent example in Brazil and under the justification of improving the population’s mental and economic health, the Japanese government decided in July 2021 to proceed with the Tokyo 2020 Olympic and Paralympic Games. The decision sparked fierce controversy and different positions among government officials, researchers, and the population in relation to the stance taken by the country and by other nations supporting the event. These included Brazil, under the command of the Brazilian Olympic Committee (COB) and the Brazilian Paralympic Committee

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(CPB). In addition, a survey conducted in July 2021 (prior to the Olympics) found that 78% of the Japanese that were interviewed disagreed with holding the Olympic and Paralympic Games, and that 65% believed that holding the games would result in the population's disunity in the middle of the COVID-19 pandemic <sup>2</sup>.

We ask, however, what could the Japanese population do if they did not support the world's two main sports events, which mobilize the economy of any host country? One possible answer appeared in the study, related to fear of the virus' spread, with the potential for increased risk of emergence of new variants in the country.

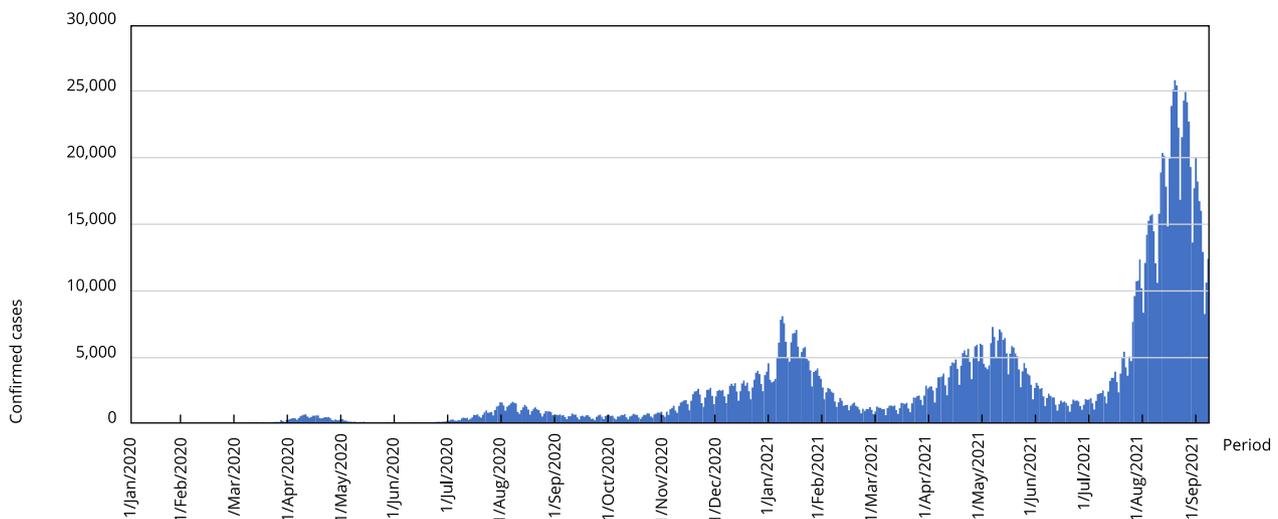
Observation of the data on the number of new SARS-CoV-2 infections before and after the Tokyo 2020 Olympic Games <sup>3</sup> shows a warning sign on the influence the games might have on SARS-CoV-2 spread in Japan, to the point where the government declared a new state of emergency and maximum alert for the COVID-19 pandemic, leading to the closing of various sectors and activities in the country (Figure 1).

On June 30, 1981, before the Olympic Games, Japan had experienced several consecutive weeks with a significant decrease in the number of COVID-19 cases <sup>4</sup>, due mainly to public safety measures and population health policies, including the on-going recommendation of social distancing whenever possible; interruption of schools' in-person classes; non-total opening of business establishments; and barriers at borders in all regions of the country. Although the Games only began on July 23, 2021, the air traffic and arrival of approximately 11,000 athletes, plus the other professionals in the delegations (technical commissions, health professionals, auxiliary services personnel, among others) shows that the event actually started weeks before the opening date; this completely altered the level of human circulation and may have compromised part of the public policies that had previously proven successful in containing the pandemic's expansion in Japan.

The athletes' arrival weeks before the opening date is justified mainly by the need for a period of prior acclimation, particularly recovering from jet lag, and specific training for adjustment to the venues. Although we understand this need in the name of better sports performance, we contend that proceeding with the Olympic and Paralympic Games was antithetical to efforts by the World Health Organization (WHO), researchers, and healthcare professionals worldwide in the fight against COVID-19, posing a serious threat not only to the Japanese people, but to global public health.

**Figure 1**

Number of new SARS-CoV-2 infections daily in Japan.



Source: Japanese Ministry of Health, Labor, and Welfare <sup>3</sup>.

In this sense, we present as the principal causal hypothesis for the growth in the curve of COVID-19 cases in Japan in the months of June, July, and August 2021 the fact that the Tokyo 2020 Olympic and Paralympic Games were held. We also warn of the risks of maintaining similar events in the future, hosted by any country.

Furthermore, we call attention to the risk that holding such events can lead to the emergence of new SARS-CoV-2 variants, decreasing the effectiveness of the currently developed vaccines <sup>5</sup>. Proceeding with such large events can also create a mistaken understanding in the population on the real possibility of controlling the pandemic – which is still not a homogeneous reality between countries. It can also lead to a mistaken understanding among populations, governments, and institutions that safety protocols, however rigorous, are 100% effective against SARS-CoV-2 and that the protocols alone can guarantee the event's internal and external safety – which has still been achieved, and of which scientists worldwide have warned <sup>6,7</sup>.

During the Tokyo Olympics, despite a rigorous protocol <sup>8</sup> (mandatory RT-PCR testing before and after arriving in Japan for both athletes and the professionals involved in the technical commissions, sanitization of environments, mask-wearing, and a 14-day quarantine period after arriving in Japan), the International Olympic Committee (IOC) recorded 547 cases of infected persons who were directly involved in the Games, 28 of whom were athletes, 147 professionals involved directly in the Games, 32 media professionals, 15 employees of the Organizing Committee of the Olympic Games, 296 outsourced workers in specific services, and 29 volunteers <sup>9</sup>.

The Olympics' passage through Japan in the months of July and early August evidenced the potential social disservice of holding such events at present. But despite the worrisome data, the Paralympic Games were maintained, and since they are the world's second largest sports event, the delegations' sizes mirrored those of the Olympics, thus favoring and prolonging the health risk for those involved directly (especially for the Paralympic athletes, many of whom belong to the risk group for serious COVID-19) and indirectly. This touches on global health issues, evidenced mainly by the risk of emergence of new SARS-CoV-2 variants and their high potential for international spread when athletes return to their home countries.

Although the Paralympic Games only began on August 24, 2021, on August 19 the Organizing Committee of the Tokyo 2020 Paralympic Games confirmed the first COVID-19 case in the Paralympic Village. The reported case in the dormitory added to more than 70 cases already related to the competition, involving infected organizers and employees. The case stood out as the first to occur in the Olympic Village, which pointed again to the likelihood of failures and weaknesses in the containment protocols and the risk of the virus' spread.

In addition to this case, a day later (August 20, 2021), the Committee reported the first case of COVID-19 in a Paralympic athlete (without disclosing the individual's name and nationality). The Committee merely disclosed that the positive result was observed during the mandatory 14-day quarantine and before the arrival in the Paralympic Village, and that nine individuals were case contacts and were being monitored by the event's organizers. The fact that the infection was detected during the quarantine period may suggest less serious concern and greater contingency potential, and it is important to highlight that the athletes' dormitories were shared by delegations from the same country and workers circulating in these spaces. One case would thus suffice for an entire delegation to acquire the virus, in addition to the increased risk of spreading the disease in the host country and/or between delegations.

According to the Organizing Committee of the Paralympics, during the games a total of 306 persons were infected after August 12, when the national delegations began to arrive in Japan. One infected individual was hospitalized. The 306 cases included 13 athletes, 53 professionals involved directly with the games, 17 media professionals, 14 employees of the Organizing Committee of the Paralympic Games, 198 outsourced workers in specific services, and 11 volunteers <sup>9</sup>.

The growing number of infected individuals in Japan before, during, and after the Olympics and Paralympics revealed weaknesses in the safety protocols which, although rigorous, failed to promote 100% safety against the spread of SARS-CoV-2. Meanwhile, Japan announced that besides the high dissemination of the Delta variant in the country, the Mu variant (B.1.621) of SARS-CoV-2 (found for the first time in Colombia) had also been identified. According to the Japanese Ministry of Health, Labor, and Welfare, the first two cases of the new COVID-19 strain in Japan were reported in June and

July this year. The WHO began to classify Mu as a variant of interest (VOI) of the novel coronavirus. According to the WHO, Mu carries a “variety of alterations” and had already been identified in at least 39 countries. Among its alterations in relation to the original virus, studies suggest that it may be more resistant to vaccines, but more research is needed to confirm its potential, according to the WHO.

We thus emphasize the importance of avoiding sports events at such a unique juncture as the world is currently experiencing. We know that the losses for sports can be numerous and irreparable, but the harms from COVID-19 on individual health for professionals and athletes (who may never be able to return to competition after the disease) and on collective health should be taken into consideration, opting instead for measures to prevent and control the pandemic.

The above-mentioned data highlight the need to maintain and strengthen contingency plans against SARS-CoV-2 throughout the world so long as the declaration of the Public Health Emergency of International Concern lasts, announced by the WHO on January 30, 2020. In addition, we should not let narratives based on improvements in mental health become the justification for misunderstandings related to the process of humanitarian nonmaleficence and decisions which may not eliminate but in fact increase the long-term harms, not only for mental health, but for all dimensions of health (physical, psychological, social, and spiritual) in the global population.

It is thus essential for international and national sports organizations, governments, and society to join ranks in a stance against holding such large events anywhere in the world, based on collectively negotiated decisions, avoiding pressures for countries to participate. However, despite the reiterated warnings on the risks of global sports events, plus the spread and potential contagion related to the Delta variant, in Brazil, similar events are proceeding with their schedules.

Another example, inconsistent with Brazil’s current health situation, especially as regards the spread of the Delta variant, is that the 2021 University Paralympic Games are continuing with their in-person schedule on September 16-19, 2021, in São Paulo. At this moment, researchers are warning of the risks of contagion and spread of the Delta variant to all regions of Brazil, but with the principal focus on the Southeast region, which can produce dire consequences for the entire country due to the spread of this variant to states that have not detected it previously.

Due to the pandemic fatigue <sup>10</sup> that all societies are experiencing, the COVID-19 pandemic will continue to affect the entire population’s mental health for months and even years, but we cannot let institutions and governments use this as justification for exposing the population to SARS-CoV-2 infection. We also call attention to the importance of understanding that the argument of psychological fatigue experienced worldwide in the COVID-19 pandemic must not, at this unique moment in our history, supersede the argument of global public health and safety. To legitimize abrupt openings and holding events of such magnitude in the current context would probably mean that the world would suffer from the COVID-19 pandemic even longer, further aggravating the economic problems, health inequities, and vulnerabilities at all levels and in all dimensions of our lives.

The Olympic and Paralympic spirit is characterized as a philosophy that extols the qualities of the body, spirit, and mind through sport, associated with educational values of setting good examples and respect for universal ethical principles. However, in the middle of the COVID-19 pandemic, our experience with such large sports events is antithetical to the Games’ own underlying principles. All our lives are on the line. We must choose the path of reason and science to achieve effective results in this daily battle against COVID-19. To avoid sports events at this moment is a humanitarian necessity, demonstrating respect for the maximum right, the right to life.

## Contributors

B. A. B. Souza Filho contributed to the study conception and project, data analysis and interpretation, writing, and critical review of the article. É. F. Tritany and C. J. Struchiner contributed to the data analysis and interpretation, writing, and critical review of the article. All authors approved the final version of the article and are responsible for all aspects of the study, guaranteeing the accuracy and integrity of all parts of the work.

## Additional informations

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