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#### Is a COVID-safe Tokyo Olympics and Paralympics really possible?

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**Intro line:** The Olympic games raises many infection control, health security and ethical challenges.

**Abstract:** The Olympic games raises many infection control, health security and ethical challenges. Japan faces severe challenges in controlling their fourth wave of COVID-19 amidst mounting domestic opposition to the Games. The International Olympic Committees plans appear inadequate and infeasible for the task and there are significant ethical and health security challenges for Japan and Australia as participants in the Games.

# Is a COVID-safe Tokyo Olympics really possible?

Signs in the windows of Tokyo's Tachikawa Sogo Hospital declare "Medical capacity has reached its limits. Stop the Olympics!" Another asks, "Give us a break." Support for the Olympics is dwindling. As is confidence in a COVID-safe Games in the midst of Japan's uncontrolled community transmission of SARS-CoV-2 virus. While the Tokyo Olympics and Paralympics provides athletes with opportunities to compete on the world stage and international viewers with a much-needed break from pandemic news, the decision by the International Olympic Committee (IOC) and Japan to forge ahead with such a large scale, international event raises many infection control, health security and ethical challenges.

Let's first acknowledge some of the steps being taken by the IOC to limit COVID-19 transmission. The absence of international spectators, decreasing crowding in the Olympic Village, standard social distancing, pre-departure and daily testing of athletes, limiting athletes' arrivals to five days before, and departure within 48 hours of competition will all provide some protection. While the IOC encourage vaccination, it is not mandatory for attendance.<sup>1</sup>

However, these interventions are likely to be inadequate for a number of reasons. From a governance perspective we cannot expect a country that is accustomed to having thousands of cases per day to deliver a COVID-safe Olympics in 10 weeks' time. As opposed to Australia's COVID-19 suppression strategy, throughout the pandemic the Japanese government have taken a cluster-based approach to COVID-19 response, characterised by targeted response to identified clusters alongside broad acceptance of the inevitability of SARS-CoV-2 community transmission.<sup>2</sup>

The first point of concern, Japan is in its fourth COVID-19 wave and third state of emergency, with over 5,000 cases being reported daily in recent weeks — and this is likely to be an underestimate of the true case count. Despite Japan having had at least five times the number of cases per head of population, it has only conducted 11,900,000 tests in a population of 126 million compared to 17,295,000 tests in a population of 26 million in Australia. Acknowledging some of these are repeat tests, these statistics approximate one test for every 1.5 people in Australia compared to one test for every 11 people in Japan. Japan is clearly missing cases of COVID-19 because of testing limitations and to date only 2% of the population is fully vaccinated.<sup>3</sup>

Second, is the risk to those participating in the Games. While the Olympic Village is intended to be a bubble with limited contact with Japanese citizens, there will be inevitable contact between service providers for cleaning, transport, COVID testing, security and catering. We know in Australia that such bubbles are vulnerable to leaks of SARS-CoV-2 despite stringent infection control practices. With 40% of infections detected in Tokyo a variant of concern (VOC), this poses additional risk to Games participants and their home country via ongoing transmission post-Games.<sup>4</sup>

The proposed pre-arrival testing plan, critical to preventing introduction of SARS-CoV-2 strains into the Olympic village, is questionable. The IOC is requiring Games attendees to have two negative COVID-19 tests in the 96 hours before arrival in Tokyo.¹ Unfortunately, rapid antigen tests, which are much less sensitive than PCR tests, are the only tests available for many athletes from limited resource settings where COVID-19 is raging. The official Certificate of Testing for COVID-19 is a simple hand completed form downloaded from the internet.⁵ While the form is required to be signed by a doctor, with the name and address of the institution written on the form, the name of the signing doctor is not required.

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An "imprint of a seal" is required, but evidence of participation in a modern laboratory quality assurance program is not required.

The proposed athlete testing strategies may not be feasible. While athletes will undergo daily COVID-19 salivary testing (rapid antigen based with PCR confirmation), it is proposed that all 11,000 athletes will gather daily at a dedicated testing area in the Village to ensure testing.<sup>1</sup> The logistics of daily testing more people than are typically tested in the entirety of Tokyo on an average day – and the opportunity for transmission within this single location – must be considerable.

Then there is the risk presented by congregate living within the Olympic Village. COVID-19 outbreaks in nursing homes, cruise ships, and homeless shelters demonstrate that congregate settings amplify SARS-CoV-2 transmission.<sup>6,7,8</sup> We have learned from quarantine hotel transmission incidents that completely COVID-safe accommodation may need to be built from scratch to control aerosol transmission. The proposed infection control interventions may ameliorate transmission, however, Olympic Villages have a long record of amplifying outbreaks due to multiple shared indoor spaces. 9,10 Not the least of which will be some hour long bus transports to distant venues. Many of the proposed infection control protocols in the "Playbook, your guide to a safe and successful Games, Athletes and Officials" published in April 2021 by the IOC and local Japanese organisers appear half hearted by Australian standards. For example, on page 53 "Seating capacity will be limited to allow for physical distancing - for example, a table for six will be adjusted to seat four people." According to page 29 of the Playbook, close contacts (15 minutes within one metre) of confirmed cases, may be allowed to compete and not be subject to a compulsory 14 days of quarantine if their testing and physical examination meets specific review criteria. Games attendees are required to download the Japanese Contact Confirming Application app (COCOA), the equivalent of our COVIDSafe app, which they are advised is due for release in June, allowing only weeks of real-world trialling prior to implementation for the Games. This may be a revised version of the current COCOA which appears beset with problems similar to the Australian COVIDSafe app.

Turning to the ethical challenges for Australia. There is no doubt that Australian athletes, coaches, doctors and support staff travelling to a country at high risk of COVID-19 transmission to represent their country deserve to be protected with COVID-19 vaccine. However, we have limited Pfizer vaccine available for doctors and nurses in frontline service provision and for Aboriginal people who are under 50 years of age. Using these vaccines on attendees, going to a Games that may very well be – or should be – cancelled is a big call. Additionally, upon return to Australia, unless alternative infrastructure is developed, the approximate 1,000 Games attendees will then require quarantine hotel space that could be used to reunite long-separated families. Consideration must also be given to what happens if similar VOC issues arise in Japan as has happened in India. Will the Games attendees be in a similar position to the cricketers? Will sick Olympians and Paralympians be able to access care in an overwhelmed health system?

The Games raise ethical concerns for Japan as well. Sixty percent of Japanese citizens surveyed want the Olympics cancelled amidst a growing online protest campaign. Many recognise the potential impacts on Japan of the arrival of a large contingent of travellers from countries ravaged by VOCs.

Japan and Australia can make a risk benefit analysis of conducting or participating in the Games. There are obviously many dreams and careers hanging in the balance and it would be a dour world if all risky human activities had to be blessed by public health practitioners. Throughout the history of plagues and pandemics people have sought rapid returns to

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normality at the first opportunity. But claims of a guaranteed COVID-safe Olympics at this time is at best an aspirational goal and at worst a cynical public relations platform. The IOC's dogged insistence – regardless of external realities – that the Games will go ahead should be concerning. There should be a nuanced acknowledgement of the factors that would trigger cancellation of the Games and a clear explanation of why the Olympics is not impossible.

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