

Commentary

The Beijing 2022 Winter Olympics: An opportunity to promote physical activity and winter sports in Chinese youth

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In February and March 2022, China will host the Beijing 2022 Olympic and Paralympic Winter Games. The vision for this landmark event promises a “joyful rendezvous upon pure ice and snow uniting the passion of hundreds of millions for winter sports”.¹ Themes have been developed to create a positive environmental impact with new development for the northern region of the country and to promote winter sports and improve the health and well-being of the Chinese people. The key messages for the winter games include inspiring youth with the Olympic spirit and encouraging millions to embrace winter sports. Notably, the Chinese government aims to mobilize at least 300 million of its citizens to engage in winter sports as an outcome of hosting the Winter Olympic Games.¹

In line with Beijing’s vision of engaging 300 million people in winter sports in China, education of the youth population and encouraging sustainable development of physical health figure prominently in planning for the 2022 Winter Olympics. For example, plans have been made to establish hundreds of Olympic and Paralympic Education Demonstration Schools. Goals have been set to expand winter sports programming into the primary and middle school curriculum and to incorporate Olympic-related educational activities into schools by organizing student festivals and winter sports events for school-aged children. Other plans include promoting a nationwide fitness campaign and encouraging mass fitness and leisure activities to make exercise a part of everyone’s daily routine.¹

These theme plans highlight the importance of sport and physical activity, which play a powerful role in children’s physical and emotional development.^{2–4} Youth who engage in regular physical activity have lower odds of engaging in risky

behaviors, such as smoking, drugs, and unsafe sex.^{5,6} Active youth are less likely to be obese or to have premature chronic conditions.⁷ They are more likely to succeed in school, be more productive in their work activities,⁸ and have better life skills for managing emotions, resolving conflicts, helping others, and making good intentional decisions.⁹ Yet, according to a 2018 World Health Organization (WHO) school-based survey of 1.6 million students globally, nearly 81% of youth 11–17 years of age were insufficiently active, with fewer than 60 min per day of moderate-to-vigorous intensity physical activity. In China, the prevalence of insufficiently active youth was 84.3%, with girls being less active than boys.¹⁰ These prevalence estimates highlight the importance of developing and implementing school- and community-based mass participation initiatives that will increase levels of physical activity among youth.

Given the increasing popularity of sports¹¹ and the health benefits^{2–7} for youth who engage in regular physical activity, there are reasons to be optimistic that promoting sports could be a means of increasing physical activity among youthful populations. For example, a study found that organized team sports accounted for 23% to 60% of physical activity among U.S. youth,¹² and another study found that boys were more active on days when they participated in sports.¹³ Organized sports provide a structure for regular participation,¹¹ which may help to increase overall physical activity among children and youth.^{14,15} The American Academy of Pediatrics has long recommended youth sports as a means of increasing physical activity.¹¹

However, there are also reasons to be skeptical about using youth sports as a physical activity-promotion strategy. One study using direct observation found that participants in youth sports spent 43% of their time being inactive.¹⁶ Another study of youth football (soccer) and baseball/softball practices using accelerometers similarly found that participants were inactive

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about half the time.¹⁷ There were wide differences across subgroups of participants. Girls were much less physically active than boys during baseball/softball practices, and older-age youth were less active than younger-age participants in both sports.¹⁷ For youth sports to make important contributions to youth physical activity, sports practices need to be designed to be active and to occur several times per week, young people need to participate in multiple sports to remain active throughout the year, and barriers related to cost and transportation to facilities have to be overcome.

Although there is much optimism that participation in sports can increase physical activity and provide other benefits, the evidence of health-related beneficial effects is limited. The International Olympic Committee (IOC) initiated Sport for All in 1983 by establishing a commission “to encourage and support the efforts of sharing the health and social benefits to be gained by all members of society through regular physical activity”.¹⁸ The initiative has been sustained by biannual conferences, guides for local program organizers, and support for annual programs in each IOC region.¹⁸ Working in collaboration with sports organizations to develop, scale, and share best practices for all programs and policies, the WHO has also incorporated the initiative into its Global Action Plan for Physical Activity (GAPPA).¹⁹ The WHO is also working with the IOC and organizers and stakeholders of major sporting events in many host countries and cities to fulfill the promised impact of increased physical activity as a legacy of their events.²⁰ Unfortunately, evaluations of the impact of Sport for All on physical activity have not been made.

A recent report examined the impact of prior Olympics on physical activity and sport participation among the general population in host countries or cities.²¹ Although Sport for All began in 1983, Beijing’s bid for the 2008 Summer Olympics was the first to mention establishing a legacy of enhancing public health through physical activity participation.¹ Since then, all host cities of Summer Olympics have promised a physical-activity legacy, but Beijing’s bid for the 2022 Winter Olympics has been the only winter games to specify physical activity legacy as a goal. For 6 Olympic Games, researchers were able to compare physical activity data collected in the host city before and after the Olympics. The Beijing 2008 Summer Olympics provided the only evidence of an Olympic legacy effect on physical activity, showing an increase in the prevalence of physical activity between 2001 (the time Beijing won the bid) and 2014.²¹ Such a pre-and-post Olympic change may be attributable to the comprehensive policies, guidelines, and programs implemented by the national government to promote mass participation in physical activity and sports across the country.²¹ Efforts, such as community sport facility construction, education campaigns, and community sporting events likely accounted for the observed increase in physical activity at the population level. No other host cities made comparable efforts or had comparable results. The positive results from Beijing 2008 indicate that it is possible for the Olympic Games to create a physical-activity legacy that benefits the entire population, not just elite athletes.

It is worth noting, however, that increased physical activity is not an automatic benefit of the Olympic Games. A study of

the 2010 Vancouver Winter Olympics showed no measurable impact on population physical activity and sport participation among Canadian children and adolescents from the pre- to the post-Olympic period (2007–2011).²² It seems that investments in sport facilities, cross-government communications and coordination, and community-wide physical activity promotion and Olympic education programs are required to produce a climate likely to cultivate an Olympic physical-activity legacy.

Nevertheless, encouraging evidence of sustained increases in population physical activity after the Beijing 2008 Summer Olympics and the Sustainability Plan¹ of the Beijing 2022 Olympic and Paralympic Winter Games, along with substantial economic, environmental, and social and education investments already made to date, provide reason for confidence that continued comprehensive efforts associated with the Beijing 2022 Winter Olympics will result in further increases in winter sports participation and physical activity across China. Because the physical activity plan for the 2022 Winter Olympic Games targets youth, there is potential for a successful physical activity legacy, with particular benefits among school-aged children and adolescents, the majority of whom are insufficiently active or not meeting physical activity guidelines.¹⁰ Clearly, addressing youth physical inactivity is a global public health mission that requires coordinated efforts among Olympic planners, leaders from the sport community, public health agencies, and community stakeholders.¹¹ In this regard, in the spirit of the Olympics, we recommend expanding strategies beyond those currently in place for promoting winter sports by including goals for increasing overall youth physical activity levels as a benefit of the Beijing 2022 Winter Olympics. We further encourage evaluations of these efforts so the lessons learned can be documented, widely shared, and implemented for future major sporting events.

Authors’ contributions

BEA and JFS drafted and edited the manuscript equally. Both authors have read and approved the final version of the manuscript, and agree with the order of presentation of the authors.

Competing interests

Both authors declare that they have no competing interests.

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