

Results From Shanghai's (China) 2016 Report Card on Physical Activity for Children and Youth

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Background: Internationally comparable evidence is important to advocate for young people's physical activity. The aim of this article is to present the inaugural Shanghai (China) Report Card on Physical Activity for Children and Youth. **Methods:** Since no national data are available, the working group developed the survey questionnaire and carried out the school surveys for students ($n = 71,404$), parents ($n = 70,346$), and school administrators and teachers ($n = 1398$). The grades of 9 report card indicators were assigned in accordance with the survey results against a defined benchmark: A is 81% to 100%; B is 61% to 80%; C is 41% to 60%; D is 21% to 40%; F is 0% to 20%. **Results:** The 9 indicators were graded as follows: Overall Physical Activity Levels (F), Organized Sport Participation (F), Active Play (D-), Active Transportation (C-), Sedentary Behavior (F), Family and Peers (B), School (B+), Community and the Built Environment (D+), and Government (D). **Conclusions:** Levels of physical activity and sedentary behavior were low and below the respective recommended guidelines. Interventions and policies at the community level should be encouraged to promote physical activity and reduce sedentary behavior. Future national surveys should be encouraged to strengthen Shanghai's Report Card on Physical Activity for Children and Youth.

Keywords: exercise, sedentary behavior, policy, advocacy, health promotion

It has been well documented that physical activity (PA) can benefit young people's healthy growth and development, maintenance of energy balance, psychological well-being, social interaction, and academic and cognitive performance.¹⁻⁵ One hour of moderate-to-vigorous intensity physical activity (MVPA) is recommended everyday for 5- to 17-year-olds by the World Health Organization (WHO)⁶ and several countries.^{5,7} Similar to many other countries,⁸ China suffers the burden of declining PA levels and increasing sedentary behavior among school-aged children, the likely result of broad social changes.⁹⁻¹¹ Shanghai, located on the east coast of China, is one of the biggest and most populous cities in both China and the world, with a population of more than 24 million. The proportion of children and youth from Shanghai (the most developed city in China) who meet the recommendation of 1 hour of MVPA everyday is very low.¹²

To better understand young people's PA behaviors and the related environmental factors, and to influence policy makers, the first step of promoting young people's PA is to monitor its current status. Therefore, an international comparable research protocol and knowledge translation model is needed. The Active Healthy Kids Canada (AHKC) Report Card has been successful in releasing information on

the PA of young Canadians and has influenced policies, programs, and interventions.¹³ To date, there is a lack of national or regional survey data available on young people's PA and sedentary behavior which are comparable across countries. In September 2014, the Shanghai Municipal Education Commission established the Shanghai Research Center for Physical Fitness and Health of Children and Adolescents (SH-RCPFHCA) at the Shanghai University of Sport (SUS), which initiated the inaugural report card program in China. The first goal of the SH-RCPFHCA was to conduct the 2016 Shanghai (China) Report Card. Later on, the SH-RCPFHCA will engage in implementing the report card at a national level, coordinated by Ministry of Education of People's Republic of China.

The purpose of this paper is to present the procedures and the results of the inaugural Shanghai (China) Report Card on Physical Activity for Children and Youth. In addition, the grade for each indicator is briefly described. The data herein were derived from a survey carried out from October 2014 to February 2015, in which more than 78,000 children aged 6 to 18 years, representing 5% of the population of children and youth in Shanghai, as well as their parents, school administrators, and teachers, participated.

Methods

The working group for the development of the 2016 Shanghai (China) Report Card included 6 researchers with expertise in PA and young people's health and 2 doctoral students from the Shanghai University of Sport. In addition, 2 international experts, Professor Mark Tremblay from the Children's Hospital of Eastern Ontario Research Institute, Canada, and Professor Weimo Zhu from the University of Illinois at Urbana-Champaign, USA, were invited to participate in the development of the report card.

The 2016 Shanghai (China) Report Card followed the procedures developed by Active Healthy Kids Canada¹³ and endorsed

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