

Results From China's 2018 Report Card on Physical Activity for Children and Youth

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Introduction

Regular physical activity (PA) is beneficial to young people's health and development.¹ Recently regional and national surveillance data show that only a few Chinese young people meet the guideline of at least 60 minutes of moderate-to-vigorous intensity PA daily.^{2,3} There are nearly 200 million Chinese schoolchildren, yet few studies have provided nationally representative and internationally comparable evidence on their PA.⁴ Thus, the purpose of this paper is to report the results of the inaugural China's Report Card on Physical Activity for Children and Youth.

Methods

The Chinese Report Card Team developed the national surveillance protocol for China's 2018 Report Card on the basis of Shanghai's (China) 2016 Report Card² using the Physical Activity and Fitness in China—The Youth Study (PAFCTYS), conducted from October to December in 2016 and coordinated by the Ministry of Education of China.^{5,6} The PAFCTYS used a three-stage stratified cluster sampling design to sample a nationally representative group of schoolchildren among schools from 22 provinces, 4 municipalities, 5 autonomous regions, and Xinjiang Production and Construction Corps (an independent division within Xinjiang Uygur Autonomous Region), in Mainland China. Detailed information regarding the sampling can be found elsewhere.³

The data from PAFCTYS included a representative sample of Chinese school-aged children (N = 125,281, boys: 49.6%, aged 9-17 years). Self-report questionnaires were completed by the sampled students, their parents/guardians, and physical education teacher (n = 1398) from each sampled school. In addition, physical fitness was assessed in the sampled students.^{7,8} Thus, the 10 core physical activity indicators that are common to the Global Matrix 3.0 (Overall Physical Activity, Organized Sport Participation, Active Play, Active Transportation, Sedentary Behavior, Physical Fitness, Family and Peers, School, Community and Environment, and Government) are covered.

Results and Discussion

The advantage of this inaugural 2018 China Report Card (front cover presented in Figure 1) is that the results are based on nationally representative surveillance data from all over mainland

China. Therefore, the results of all 10 indicators (Table 1) are able to demonstrate the general situation of PA and sedentary behaviors and the social context of those behaviors as well as the physical fitness of Chinese children and adolescents.

Compared with Shanghai's 2016 Report Card,² we found that for indicators regarding PA behaviors, such as Organized Sport Participation (China: D-; Shanghai: F), Active Play (China: D+; Shanghai: D-), and Active Transportation (China: C+; Shanghai: C-) are better on the national level than in Shanghai. Meanwhile, indicators regarding the social context, such as School (China: D+; Shanghai: B+), Family and Peers (China: D+; Shanghai: B), Community and Environment (China: F; Shanghai: D+), and Government (China: F; Shanghai: D) are poorer on the national level than in Shanghai. Nevertheless, a grade of F was assigned for Overall PA and Sedentary Behavior on both the national level and



Figure 1 — China's 2018 Report Card cover.

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Table 1 Grades and rationales for China's 2018 Report Card

| Indicator | Grade | Rational |
|-------------------------------|-------|---|
| Overall Physical Activity | F | 13.1% of Chinese children (aged 9-17 years) reported that they were engaged in daily moderate-to-vigorous physical activity (MVPA) for at least 60 minutes in the past 7 days. |
| Organized Sport Participation | D- | 20.5% of Chinese children (aged 9-17 years) participated in organized sport and/or physical activity (PA) programs. |
| Active Play | D+ | 38.7% of Chinese children (aged 9-17 years) participated in unstructured/unorganized PA at least four times during the past week. |
| Active Transportation | C+ | 56.3% of Chinese children (aged 9-17 years) walk or bike to school. |
| Sedentary Behaviors | F | 7.1% of Chinese children (aged 9-17 years) had less than 2 hours of sedentary time (SDT) per day, SDT includes: 1) TV watching 2) using smartphone/iPad 3) using the computer, surfing the internet and 4) doing homework. |
| Physical Fitness | D | 30.0% of Chinese children (aged 9-17 years) reached the level of 'excellent' or 'good' based on The Physical Fitness and Health Surveillance of Chinese School Students. |
| Family and Peers | D+ | 37.5% of Chinese children (aged 9-17 years) Responded 'very often' for at least two items for parents' support, and responded 'very right' for at least two items for friends support for PA. |
| School | D+ | 37.5% of responses met the benchmark regarding schools: 1) the principal's concern about PA, exercise and physical education (PE) of students, 2) the frequency and duration of PE course, 3) the amount of accredited PE teachers, 4) Facilities, 5) Equipment, and 6) Students' satisfaction with PA and exercise-related opportunities in school. |
| Community and Environment | F | 14.8% of responses met the benchmark regarding facilities and equipment, sports organizations and community sports activities based on: 1) whether it is easy to find facilities and equipment for sport/exercise in young people's communities, 2) whether there is organizations for sport/exercise (e.g. sport clubs) for youth in the community, and 3) whether there are sport/exercise activities organized in the community. |
| Government | F | 17.8% of parents reported that they were aware of the national policies regarding physical activity of Chinese children. |

in Shanghai due to the small proportion of young people in China meeting the PA or sedentary behavior recommendations.

Conclusion

Levels of PA and sedentary behavior of Chinese youth were low and below the recommended guidelines. Interventions and policies at the community and environment level should be encouraged to promote PA and reduce sedentary behavior. In addition, national policies on young people's PA should be advocated widely to ensure the policies can be transferred into actions.

Acknowledgement

This study is supported by the Key Project of the National Social Science Foundation of China (No. 16ZDA227).

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