

Results from Bangladesh's 2018 Report Card on Physical Activity for Children and Youth

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Introduction

Insufficient physical activity (PA) among children and youth is a global public health challenge.¹ Available data suggests that a large proportion of Bangladeshi youth do not meet the recommendations of ≥ 60 min/day of moderate-to-vigorous PA (MVPA) guidelines.² This is of particular concern because of the health implications of insufficient PA.³ The purpose of this paper is to summarize the results of the 2018 Bangladesh Report Card, which is a synthesis of the existing evidence of activity behaviours, available supports, and policy strategies surrounding active living in children and youth in Bangladesh.

Methods

The 2018 Bangladesh Report Card included the ten core indicators of the Global Matrix 3.0. A research working group (RWG) representing experts from the key stakeholders in Bangladesh discussed the indicators in a national workshop, and suggested an additional indicator 'Contribution of the non-government organisations (NGOs)' to acknowledge the roles of NGOs in healthy living in Bangladesh. Data for these 11 indicators was extracted from the best available sources from 2010-2018 (e.g., national surveys, government and nongovernment reports, and other online resources), while most data was from the 2014 Bangladesh Global School-based Student Health Survey (GSHS), a population-based survey of adolescents aged 13-17 years.^{2,4} The extracted data was collated and used to grade the indicators based on the Global Matrix 3.0 grading scheme. Grades were finalized after consultation with the RWG members.

Results and Discussion

The Bangladesh Report Card front cover is displayed in Figure 1. The results for the 10 core indicators are summarized in Table 1. Only four of the 10 core indicators had sufficient data available to grade as well as the additional 11th indicator not included in the table. Sedentary behaviour of the adolescents in Bangladesh seems to be satisfactory with 85% having ≤ 2 hr/day of sitting time.² However, three out of five adolescents had insufficient PA.²

A similar proportion of adolescents reported that they do not use active commuting.⁴ Though available government policies demonstrate the government's commitment towards active living in children and youth,⁵ the funding and operationalization of these policies is limited.⁶

The additional indicator 'Contribution of the NGOs' was assigned a grade "C-". Some of the NGOs in Bangladesh are working on promoting awareness about PA, and providing opportunities for sports and active commuting.^{7,8} given the positive roles of NGOs in health and other sustainable development initiatives in

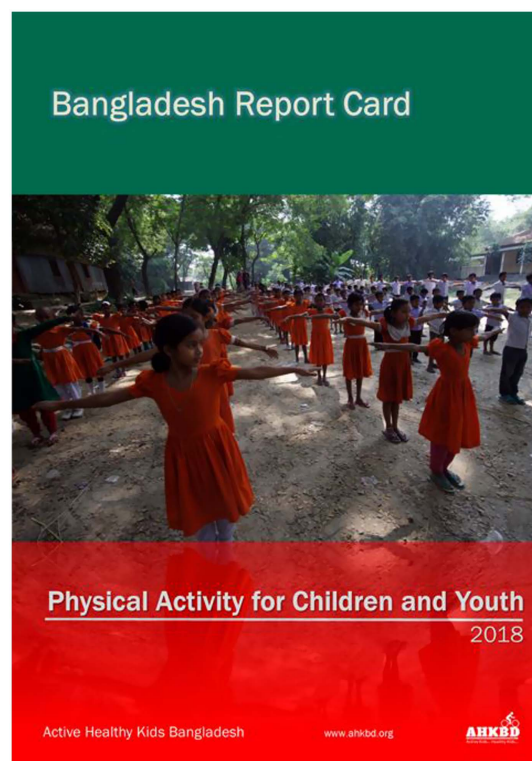


Figure 1 — Bangladesh's 2018 Report Card front cover.

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

Indicator	Grade	Rational
Overall Physical Activity	C-	According to the 2014 Bangladesh School-based Student Health Survey (GSHS), 41.4% of students aged 13-17 years were physically active for at least 60 min/day during the seven days prior to the survey. ² There was no noticeable gender disparities with 40.2% girls and 42.0% boys meeting the recommendations. ²
Organised Sport Participation	INC*	See note 1
Active Play	INC	See note 1
Active Transportation	C-	According to the 2014 Bangladesh School-based Student Health Survey (GSHS), 41.1% of students aged 13-17 years used active transport to commute to or from school at any time within seven days prior to the survey. ⁴
Sedentary Behaviours	A-	According to the 2014 Bangladesh School-based Student Health Survey (GSHS), 84.7% of students aged 13-17 years had ≤ 2 hr/day of recreational sitting-time with a higher proportion of girls (88.1%) than boys (83.0%). ²
Physical Fitness	INC	See note 1
Family and Peers	INC	See note 1
School	INC	See note 1
Community and Environment	INC	See note 1
Government	C-	In the National Children Policy 2011, Bangladesh, there is an evidence of commitments in providing school and community-based sports and healthy recreational facilities for children and adolescents. ⁵ Bangladesh also has a National Sports Policy (1998) to promote physical activity opportunities among this population group (e.g., institution-based sports facilities); however, the operationalisation of these policies is limited. ⁶

Note 1: Recently, we have completed a systematic review on physical activity, sedentary behaviour, and related terms/parameters among Bangladeshi population including children and adolescents. We could not find any information to grade the following indicators: 'Organised sports and physical activity'; 'Active play'; 'Physical fitness'; 'Family and peers'; 'School' and 'Community and environment', and hence graded them as *INC* [incomplete]. The review is registered with the PROSPERO and details can be found at: http://www.crd.york.ac.uk/PROSPERO/display_record.php?ID=CRD42018083935. This work is yet to submit for publication.

Bangladesh,⁹ NGOs, in partnership with the government, can play a major role in promoting PA in young people of the country.

The GSHS data is limited to adolescents aged 13-17 years; therefore, no data is available for those aged 5-12 years in Bangladesh. Furthermore, the GSHS data is self-reported, which is susceptible to social desirability and recall bias.

Conclusion

Overall, there is a lack of data on various activity indicators, supports and policy strategies surrounding active living in children and youth in Bangladesh. Although some data are available for adolescents aged 13-17 years, no data are available for children and younger adolescents. The Report Card, therefore, calls for collecting surveillance data on all of the indicators to inform strategies to promote an active lifestyle in children and youth in Bangladesh.

References

- Hallal PC, Andersen LB, Bull FC, Guthold R, Haskell W, Ekelund U. Global physical activity levels: surveillance progress, pitfalls, and prospects. *Lancet*. 2012;380(9838):247-257. PubMed ID: 22818937
- World Health Organization. The Global School-based Student Health Survey Bangladesh 2014 Fact Sheet. 2014. <http://www.who.int/ncds/surveillance/gshs/2014-Bangladesh-fact-sheet.pdf>. Accessed March 2, 2018.
- Janssen I, Leblanc AG. Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *Int J Behav Nutr Phys Act*. 2010;7:40. PubMed ID: 20459784 doi:10.1186/1479-5868-7-40
- World Health Organization. 2014 Global School-based Student Health Survey (GSHS) results: Bangladesh survey. 2014. http://www.who.int/ncds/surveillance/gshs/BDH2014_public_use_codebook.pdf?ua=1. Accessed December 19, 2017.
- Ministry of Women and Children Affairs. Bangladesh National Children Policy 2011. *Ministry of Women and Children Affairs, People's Republic of Bangladesh*. 2011. <http://ecd-bangladesh.net/document/documents/National-Children-Policy-2011-English-04.12.2012.pdf>. Accessed February 18, 2018.
- Biswas T, Pervin S, Tanim MIA, Niessen L, Islam A. Bangladesh policy on prevention and control of non-communicable diseases: a policy analysis. *BMC Public Health*. 2017;17:582. PubMed ID: 28629430 doi:10.1186/s12889-017-4494-2
- Work for a Better Bangladesh Trust. About Non-Communicable Diseases (NCD). n.d.. <http://www.wbbtrust.org/view/whatwedo/what-we-do/health-rights/non-communicable-diseases-ncd>. Accessed May 30 2018.
- Women Win. Women Win and BRAC Bangladesh. n.d.. <https://womenwin.org/partners/programme-partners/brac-bangladesh>. Accessed May 30 2018.
- Roy I, Raquib T, Sarker A. Contribution of NGOs for socio-economic development in Bangladesh. *Science Journal of Business and Management*. 2017;5:1-8. doi:10.11648/j.sjbm.20170501.11