Results From Nigeria’s 2013 Report Card on Physical Activity for Children and Youth


Background: Physical activity (PA) promotion in children and youth is an impetus for prevention and control of NCD morbidity and mortality, but evidence is needed for effective interventions. The aim of the present paper is to summarize the results of the 2013 Nigerian Report Card on Physical Activity for children and youth. Methods: The Technical Report Committee conducted a comprehensive review of available literature in Nigeria. Grades were assigned to 10 PA indicators modeled after the Active Healthy Kids Canada (AHKC) grading system. Results: Specific grades were assigned for several indicators: Overall Physical Activity Levels, C; Organized Sport and Physical Activity Participation, Incomplete; Active Play and Leisure, C--; Active Transportation, B; Sedentary Behaviors, F; Overweight and Obesity, B+. The following indicators were graded as INCOMPLETE: Physical Activity in School setting, Family and Peers, Community and Built Environment, and Government Strategies and Investments. Conclusions: PA levels of Nigerian children and youth are moderate while sedentary behaviors are high. The development of national guidelines for PA and sedentary behaviors can better inform policy and practice on healthy living among Nigerian children and youth.

Keywords: child health, noncommunicable disease, health promotion, advocacy, policy

Physical inactivity is increasing as a major cause of noncommunicable diseases (NCDs) and mortality in the African region.¹² In Nigeria, physical inactivity related NCDs already account for 27% of all mortalities,³ and population levels of physical activity (PA) and sedentary behaviors remain unhealthy across sociodemographic subgroups.¹⁴ The prevalence of overweight is also rising rapidly among Nigerian adolescents.⁷⁻⁸ It is thus important to promote PA per se and active transportation, to reduce sedentary behaviors, and to evaluate related policies and strategies on children and youth in this country.

Nigeria has the highest population of young people 10–24 years in the entire African region, totaling 53.5 million, and this figure is projected to double by the year 2050.⁹ There is urgent need to improve and accelerate PA-related prevention programs aimed at reducing the development of risk factors for NCDs in this age group.

The Nigerian Heart Foundation (NHF) was established as a nonprofit and nongovernmental organization in 1995 with the objective of promoting health and socioeconomic well-being among Nigerians, especially related to heart diseases. The activities of the NHF are focused on supporting awareness on heart disease prevention, and promotion of medical and scientific research on heart disease and behavioral modifications. Pursuant to its objectives, the NHF initiated and coordinated the development of the 2013 Nigerian Report Card on Physical Activity for Children and Youth. This initial first PA report card can be used to encourage advocacy and influence policy on PA and healthy living among children and youth in Nigeria.

The present paper summarizes the results of the 2013 Nigerian Report Card on Physical Activity for Children and Youth. The report card was informed by evidence from multiple sources, including journal publications, graduate student theses, and literature from government agencies in Nigeria.

Methods

The 2013 Nigerian Report Card (see Figure 1) was developed through the collaboration of the Nigerian Heart Foundation and the Technical Report Committee (TRC) consisting of 9 Nigerian researchers with content expertise on PA, exercise and public health. The TRC was responsible for identifying the key literature (both published and unpublished), reviewing content and informing the grade assignment process. Other institutions that provided support included Active Healthy Kids Canada; the International Development Research Centre (IDRC), Canada; Kenyatta University, Kenya; and The International Sports Academy, Nigeria. The Nigerian Heart Foundation took the responsibility for production and dissemination of the final report card.

Ten indicators were included in the Report Card: overall physical activity level; organized sport and physical activity participation; active play and leisure; active transportation; sedentary behaviors (screen-based sedentary behavior and nonscreen-based sedentary behavior); overweight and obesity; physical activity in school settings; family and peers; community and built environment; and government strategies and investments. Comprehensive reviews of key articles including published academic and unpublished literature sourced from online databases, direct contact with authors, and search of university libraries were used to inform the grades for each indicator.

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Nigeria’s 2013 Report Card

Table 1 Grades According to Physical Activity Indicator in the 2013 Nigerian Report Card on Physical Activity for Children and Youth

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Grades</th>
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<tbody>
<tr>
<td>Overall Physical Activity Levels</td>
<td>C</td>
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<tr>
<td>Organized Sport and Physical Activity Participation</td>
<td>INC</td>
</tr>
<tr>
<td>Active Play</td>
<td>C</td>
</tr>
<tr>
<td>Active Transportation</td>
<td>B</td>
</tr>
<tr>
<td>Sedentary Behaviors</td>
<td>F</td>
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<tr>
<td>Overweight and Obesity</td>
<td>B+</td>
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<tr>
<td>Family and Peers</td>
<td>INC</td>
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<tr>
<td>Community and the Built Environment</td>
<td>INC</td>
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<tr>
<td>School</td>
<td>INC</td>
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<tr>
<td>Government Strategies and Investments</td>
<td>INC</td>
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</tbody>
</table>

Note. The grade for each indicator is based on the percentage of children and youth meeting a defined benchmark: A is 81%–100%; B is 61%–80%; C is 41%–60%, D is 21%–40%; F is 0%–20%; INC is incomplete data.

Results

Grades assigned in 2013 Report Card on Physical Activity among Children and Youth in Nigeria are summarized in Table 1. Grades were assigned to Overall Physical Activity Levels, Active Play and Leisure, Active Transportation, Sedentary Behaviors, and Overweight and Obesity. A grade of Incomplete was assigned to Organized Sport and Physical Activity Participation, Schools, Family and Peers, Community and the Built Environment, and Government Strategies and Investments due to a lack of data to inform a more specific grade.

Discussion

Overall Physical Activity Levels: C

Several Nigerian studies indicated that between 30.3% and 74.6% of children and youth 5–18 years do some kind of PA daily. However, other studies suggest that the levels of PA among Nigerian children and youth may not be sufficient for health benefits. While international guidelines recommend the accumulation of at least 60 minutes of moderate-to-vigorous physical activity (MVPA) daily, only 47.3% (58.4% boys; 29.0% girls) of Nigerian children and youth 5–19 years were reported to participate in MVPA on 3 or more days per week. Studies from 2 different regions of Nigeria suggested that only 50%–59% of young university students engaged in daily MVPA for 30 minutes on at least 5 days per week. Compared with other ethnic groups in the Southern region of Nigeria, girls from the Hausa ethnic group in Northern region of Nigeria had the highest prevalence of physical inactivity and were less likely to be moderately active physically for health benefits. Because of the strict social values and religious ethics in Northern Nigeria which limit interactions with boys or single adult men unrelated to them, it is possible that girls will not be physically active although there may be many other people exercising.
There are no national data on the percentage of children and youth who participated in 60 minutes or more of MVPA daily. Nevertheless, we assigned a grade of C to this indicator because the available evidence suggested that about one-half of Nigerian children and youth were participating in some form of health enhancing PA on most days of the week.

Organized Sport and Physical Activity Participation: INC

This indicator was assigned the grade of “incomplete” because evidence on the frequency of participation in organized sport and PA done outside school period by Nigerian children and youth is lacking. The indicator was included in the report card because of the growing importance of organized sport as a potentially health enhancing PA among children and youth. Moreover, including this indicator highlights the need for systematic national data to better inform future report cards.

Active Play and Leisure: C-

Only 41% of Nigerian children and youth 10–19 years reported that they were involved in 1 or more types of active play (unstructured or nonorganized PA) during their leisure. Most children and youth in Nigeria spend between 12%–70% of their time during active play on outdoor activities such as playing soccer (football), basketball, and running. Another study showed that 41% of Nigerian adolescents engaged in active play 5–6 times per week in their spare time and also during the after school periods, in the evenings and on weekends. Although, the frequency of active play in Nigerian children and youth appears to be relatively higher than those reported by children and youth from the developed countries, this indicator was graded a C-based on the available data for Nigeria, and a lack of data for younger children (ie, under 10 years of age).

Active Transportation: B

Active transportation to school is the most common mode of transportation among Nigerian children and youth. Accordingly, 80% of 5- to 13-year-olds in rural areas of Nigeria walked to school each day, while an estimated 90% of 6- to 14-year-olds in semirural Nigeria spent more than 30 minutes walking to and from school every day (unpublished data). In an urban setting in the North-East region of Nigeria, 52% of 12- to 19-year-olds spent an average of 25 minutes walking to school on each of 5 days, while an unpublished study of the urban area of Ibadan in the South-West region of Nigeria suggested that 46% of school children 5 to 13 years walked to school every day. Overall, the studies suggested evidence for a transition in active transportation transition among Nigerian children and youth with active transportation levels declining as the population shifts from a rural subsistence agricultural setting to a more westernized urban setting. Given the variation among studies, this indicator was graded B. In addition, international comparisons indicated that Nigerian children and youth were doing relatively better on the active transportation indicator compared with other countries.

Sedentary Behaviors: F

Studies showed that 35%–91% of children and youth 6–18 years in rural and urban areas of Nigeria spend over 3 hours per day on screen activities. Television viewing (91%) and playing video games (60%) were the most common sedentary behaviors among Nigerian children and youth. International recommendations suggest that school-aged children and youth should accumulate no more than 2 hours of recreational screen time per day. Accordingly, a grade of F was assigned to this indicator to reflect that Nigerian children and youth did poorly on screen based sedentary behaviors.

In addition, unpublished studies indicated that about 55% of children and youth in urban areas of Nigeria spend about 27 minutes daily (one-way) in passive commuting to school (cars and motorcycles) and more than 95% of 11- to 19-years-olds reported an average of 3 hours and 15 minutes daily on sedentary activities such as sitting down and chatting and playing board games with friends. Cumulatively, evidence on sedentary behaviors of children and youth in Nigeria suggests a need for urgent attention. Public health intervention to reduce screen time and other sedentary behaviors among children and youth in Nigeria is warranted.

Overweight and Obesity: B+

Studies in Nigeria, though not nationally representative, showed that 1.8%–15.5% of children and youth 5–24 years were overweight and 0.2%–4.3% were obese. The nutritional transition is characterized by a shift from traditional types of diet to more Westernized diets (high fat, high cholesterol, low fiber), and less involvement in active transportation and physical activities at home and in school. The transition has been associated with overweight and obesity among urban children and youth in Nigeria. Although available data showed a very low prevalence of obesity in Nigeria, the increasing prevalence of overweight in children and youth suggested a grade of B+ for this indicator.

Family and Peers: INC

There is insufficient evidence to assign a definite grade to this indicator on the Nigerian report card. The only available study that explored this indicator is unpublished. It indicated that about one-third of Nigerian school children and youth were influenced by friends and peers to engage in active commuting to school. More research is needed to better inform a grade for the influence of family and peers on the PA of Nigerian children and youth.

Physical Activity in School Settings: INC

Children and youth spend a substantial part of the day in the school setting, and there is growing evidence internationally that the school environment offers significant opportunities for improving PA behavior. The report could not assign a definite grade to the school setting indicator because the evidence is insufficient for the Nigerian context. Anecdotal reports indicated that the Nigerian school setting provided adequate space for physical education (PE) programs, but there was variation in the provision of space and time for PA programs. More efforts are needed to reinvigorate existing PA programs in Nigerian schools to meet the global standard and best practices.

Community and Built Environment: INC

The ways in which a community is designed and built, vis a vis its transportation system, recreational infrastructures and commercial facilities, can either support or inhibit opportunities for physical activity. However, the grade of “incomplete” was assigned to this indicator because there is insufficient evidence on community and built environmental influence on physical activity, sedentary behavior and body weight status of Nigerian children and youth. Nevertheless, this indicator was included in the report card to emphasize the importance of community design and urban planning to physical activity in Nigeria, and the need to collect more data for
a meaningful assessment of the indicator in future Nigerian report cards. Moreover, there is emerging evidence that favorable urban designs, such as increased access to destinations and commercial services, good aesthetic features and safety from crime and traffic are relevant for physical activity promotion and obesity control in Nigerian adults.  

Government Strategies and Investment: INC

While there is existing government policy on sports in Nigeria, there is a dearth of information on investments and implementation of this policy at any tier of government in Nigeria. For example, the Nigeria Academicals Sports Committee (NASCOM) in conjunction with the Nigeria Schools Sports Federation (NSSF) were required by law to collaborate with state and local governments in promoting sporting activities in Nigeria schools. However, there is no evidence on the evaluation of effectiveness of this policy or any similar policy objectives at any tier of government in Nigeria. Based on this, the grade of “incomplete” was assigned to this indicator in the 2013 Nigerian report card.

Limitations

Although grades are based on the best available data there are many important research gaps identified in the 2013 Nigerian report card. First, because the data sources that informed the assessment of grades to indicators in the Nigerian report card are not nationally representative, as most of the studies were carried out in the regions of north east and western Nigeria. Nationwide, data using similar definitions and cut-points are needed to provide a detailed picture of physical activity levels and sedentary behaviors of Nigerian children and youth, and to enhance better international comparisons of grades. Nationally representative data on children and youth physical activity and sedentary behaviors have practical relevance for informing research, practice and policy in Nigeria. Second, the need for developing national guidelines for physical activity levels and sedentary behaviors in Nigerian children and youth is an important research gap identified by the report card. National guidelines on physical activity and sedentary behaviors can provide effective guidance to public health and health care professional, and help set measurable targets for active surveillance on children and youth healthy living in Nigeria. Third, more research to investigate the influence of demographics (eg, gender) and socioeconomic transition (eg, income and rural-urban migration) on the levels of active transportation, active play and organized sport and sedentary behavior among Nigerian children and youth is needed. In addition, studies are needed to identify specific built environmental or community factors (eg, neighborhood walkability, playability, safety, infrastructures) that could help to promote physical activity, reduce sedentary behaviors and improve body weight status among Nigerian children and youth. Fourth, more studies to explore and understand the influences of family and peers on physical activity and sedentary behaviors are required. Fifth, research on the evaluation of the implementation of government policies and strategies at all tiers of government should be conducted and attention of decision-makers, and future report card in Nigeria should be drawn at all tiers of government should be conducted and attention of decision-makers, and future report card in Nigeria should be drawn.

Conclusion

Physical activity levels are moderate and sedentary behavior is high among Nigerian children and youth, and no evidence exists on the effectiveness of existing policies that can improve this situation in Nigeria. The report card documents the paucity of National data on physical activity. To better inform practice and policy, there is need for more research, advocacy, and the development of national guidelines on physical activity levels and sedentary behaviors for Nigerian children and youth.

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References


