

# Results From Ghana's 2014 Report Card on Physical Activity for Children and Youth

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**Background:** Limited evidence exists on indicators of physical activity (PA) and guidelines for children and youth in Ghana, despite the growing burden of physical inactivity, obesity, and related morbidity. A baseline description of PA indicators of Ghanaian children and youth is hereby presented in the 2014 Ghanaian Physical Activity Report Card. **Methods:** Data for the report card were obtained from a very limited available literature on PA among children and youth in Ghana. PA experts independently assigned grades to indicators based on available evidence, which were then harmonized and agreed to by group consensus. **Results:** The report card is based on limited evidence. Thus, 2 indicators were not graded (Active Play, and Family and Peer Support). For sedentary behavior, a B grade was assigned based on evidence from the 2012 Ghana School Health Survey which indicated that 21% of children and youth were sedentary. Organized Sports was graded a C, while the remainder of indicators (Overall PA levels, Active Transportation, School, Community, and Government) were graded a D. **Conclusions:** About one-third of Ghanaian children and youth engage in inadequate PA. More research on PA behavior and enabling environments is needed to better grade the indicators of PA in the future and to inform policy and interventions in Ghana. Appropriate school physical education and after-school sports policies and programs are warranted.

**Keywords:** sports, transportation, exercise, policy, programs

Obesity and related noncommunicable diseases are increasing at alarming rates globally due to the nutritional transition and a transition in human behavior toward reduced physical activity (PA) and increased sedentary behavior associated with use of technology for learning, recreation, and occupation.<sup>1-3</sup> Yet, research evidence on PA behavior among children and youth remains relatively scarce in the developing world. Although Ghana is experiencing a rapid increase in obesity,<sup>4-6</sup> there is limited evidence on PA levels of children and youth and less information about community-based practices or governmental programs for the promotion of PA.

The 2014 Ghanaian Physical Activity Report Card is a maiden effort to establish national baseline data on PA and PA-enabling environments. The evidence presented is intended to inform future research and interventions toward promoting PA among Ghanaian children and youth. The report card was inspired by the Active Healthy Kids Canada (AHKC) Report Card, which has been reporting on PA and PA-enabling environments of children and youth for the past 10 years,<sup>7</sup> the Healthy Active Kids Kenya Report Card (HAKK),<sup>8,9</sup> and the Healthy Active Kids South Africa (HAKSA) Report Card.<sup>10</sup>

The 2014 report card was championed by the Active Living and Wellness Association of Ghana (ALWAG), with active contributions from its members which included Active Healthy Kids-Ghana (AHKG), Ghana Physical Activity Network (GPAN), and the Ghana Physical Education & Sport Thinktank (GPESSt).

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## Methods

The development of the 2014 Ghanaian report card followed the process used in developing the AHKC, HAKK, HAKSA Report Cards.<sup>7-11</sup> A team of researchers with expertise in various disciplines including PA, Physical Education (PE), Public Health, Sports Medicine and Social Science were assembled. Evidence to inform the grading of the 2014 Ghanaian PA report card for children and youth was extracted from a very limited available literature on PA among children and youth in Ghana published between 1975 and 2013.

To determine what is known about PA behavior of children and youth and/or PA indicators in Ghana, a secondary or desk research methodology was used. This method involved review and synthesis of existing documents and research pertaining to indicators of PA selected in advance by AHKC to ensure consistency among countries participating in the Global Matrix of Report Card Grades.<sup>7,11</sup> Information generated from the desk research was used to describe PA behavior and enabling environments for 9 indicators included in the 2014 Ghanaian report card (Table 1).

Each member of the team independently performed grade assignments for the 9 indicators based on the proportion of children and youth that was achieving an identified benchmark: A referred to succeeding with 81%–100% of children and youth, B with 61%–80%, C with 41%–60%, D with 21%–40%, and F with 0%–20%; a grade of incomplete (INC) refers to insufficient data to assign a grade. The quality and quantity of the evidence from the secondary research, the context in which the evidence was generated and expert judgment were also considered in the assignment of grades. The principal investigator subsequently harmonized the decisions. In a subsequent meeting of the experts, the group reached consensus on the assigned grade for each indicator.

**Table 1 Grades According to Physical Activity Indicator in the 2014 Ghana Report Card on Physical Activity for Children and Youth**

Indicator	Grades
Overall Physical Activity Levels	D
Organized Sport Participation	C
Active Play	INC
Active Transportation	D
Sedentary Behaviors	B
Family and Peers	INC
School-infrastructure, policies and programs	D
Community and the Built Environment	D
Government Strategies and Investments	D

*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.

## Results

The 2014 Ghana report card is the first assessment of PA levels and enabling environments for children and youth in Ghana. Based on limited evidence, 2 indicators were not graded (Active Play, and Family and Peer Support). Of the 7 remaining indicators, 5 were assigned a grade of D and 2 were assigned a grade of C and B, respectively. Grades for the 9 PA indicators in the 2014 Ghana Report Card on Physical Activity for Children and Youth (see Figure 1 for front cover image) are summarized in Table 1.

### Overall Physical Activity Levels

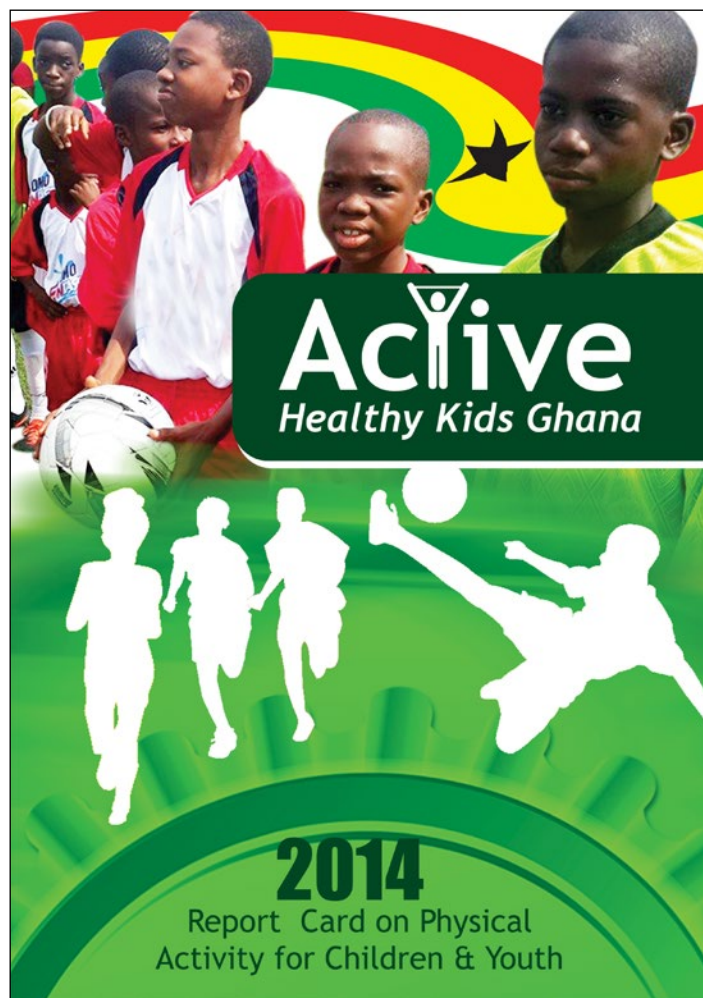
The grade of D was based on 3 documented reports on PA levels of Ghanaian children and youth; all 3 reported PA levels ranging between 12%–34% relative to World Health Organization (WHO) PA guidelines.<sup>4,5,12</sup> Although children and youth engaged in multiple household chores involving PA on a regular basis, no evidence for these activities was available for analysis. In view of inherent household chores assigned to children and youth in Ghana by parents and/or siblings, research on PA behaviors associated with daily chores is warranted to fully understand and explain this indicator.

### Organized Sports Participation

The grade of C indicated that about one-half of children and youth participated in sport. The grade for this indicator was based on 3 available documents obtained from the Ghana Education Service (GES)<sup>13–15</sup> that provided information on organized sports opportunities offered to students. No systematic data on actual participation in organized sports was available. Although document analysis revealed adequate provision for participation in sport, playing fields/space and equipment were markedly inadequate, and where facilities and equipment were available, they were in poor condition. Systematic observational research on actual participation and surveillance of sport participation is needed to better inform this indicator.

### Active Play

This indicator was not graded due to the absence of evidence.



**Figure 1** — Front cover of the 2014 Ghana Physical Activity Report Card.

## Active Transportation

The grade of D assigned to this indicator was based on 1 study<sup>12</sup> which reported that 36% of urban high school students walked or bicycled to school. There was no evidence or information for rural dwellers. Experts observed that acceptable active transport behavior among children and youth varied from region to region with visible signs of more children riding bicycles or walking to/from school in the northern part of the country compared with the middle and the southern regions. Research is needed to verify this observation to sufficiently inform the active transportation behavior of Ghanaian children and youth.

## Sedentary Behavior

A grade of B was assigned for sedentary behavior based on evidence from the 2012 Ghana School Health Survey which indicate that only 21% of children and youth were sedentary.<sup>18</sup> This was based on the Global School-based Health Survey and used global PA guidelines in the absence of local guidelines. Children and youth attending private schools were more sedentary and more likely to be transported in a car to school, used a computer often, and watched television more frequently and for longer hours than children and youth attending public schools. Experts intuitively observed that contemporary school children and youth in Ghana spend a major proportion of the day sitting in regularly scheduled classes, after school extra classes and weekend classes. In addition, many school schedules<sup>13–16</sup> do not provide opportunities for play time or recess. Research is needed to better inform the amount of time children and youth spend sitting in school, extra classes in non-PA subjects, using computers and/or watching television, and just idle doing nothing ('sitting around').

## Family and Peers

This indicator was not graded due to absence of evidence.

## School—Infrastructure, Policies, and Programs

A grade of D was assigned to this indicator based on 2 available documents on requirements for establishing schools and perspectives of PE and after-school sports programs in Ghana.<sup>16,17</sup> The experts noted that a requirement for establishing a school in Ghana was the provision of a playing field and quality curriculum to promote participation in PA. However, there was no surveillance data on the extent to which schools adhered to the provision of a playing field, equipment and facilities that promoted PA and a quality PE curriculum. Although the Ghana Education Service provided a national syllabus (not curriculum) for PE and sports, there were no measures in place to ensure quality or accountability. The experts further noted an absence of policies that guided the conduct of PE and after-school sports in the country. Future research is needed to establish the relationships among PE, after-school sports, and PA to define expectations for job performance (as a sports coach or a PE teacher) and accountability. There is an urgent need to develop comprehensive policies and curricula for PE and after-school sports, and for adequate provisions of safe facilities and equipment to increase PA levels of children and youth.

## Community and the Built Environment—Infrastructure, Policies, Programs, Safety

A grade of D was assigned to this indicator based on 1 available study that investigated the built environment using a street level audit in Accra. The study revealed a number of environmental bar-

riers to outdoor PA.<sup>19</sup> The barriers included absence of sidewalks, poor access to sidewalks, or poor conditions of sidewalks. Experts observed that agencies responsible for ensuring availability of safe community playgrounds and built environment (eg, parks, recreation and adventure grounds) were disconnected, resulting in poor planning and surveillance of this indicator. Data on infrastructure, policies and programs were nonexistent. Further research is needed to better inform this indicator.

## Government—Strategies, Policies, Investments

For government strategies, policies, and investments, a grade of D was assigned due to the absence of national policies and strategies for the promotion of PA among children and youth. Evidence on government investment in increasing the PA levels of children and youth was nonexistent. No data existed on government investments in the promotion of PA among children and youth. No information also existed on how the government coordinated potential PA opportunities associated with the various agencies that provide for children and youth (eg, schools, sports for development organizations, NGOs, community fitness clubs, and so on). There was also no information on national budgeting and accounting relating to PA that would illustrate government investments, surveillance and monitoring opportunities providing for PA children and youth.

## Discussion

There was a paucity of information dealing with PA among Ghanaian children and youth. The indicators that were assigned grades were scored based on 3 existing documents. This report card, therefore, makes a call for research investment in PA in Ghana, particularly focused on children and youth.

## Overall Physical Activity Levels

The D grade for this indicator was not surprising. Although PE is required in all schools,<sup>13–16</sup> anecdotal evidence suggested that the requirement was rarely enforced at the school level. Expert opinion also revealed that PE periods were frequently sacrificed for "examinable school subjects" (ie, academic subjects) and PA as extracurricular activity. The low grade was consistent with the 2012 global PA surveillance report which indicated that only 20% of 13- to 15-year-old Ghanaian youth reported getting at least 60 minutes of daily MVPA.<sup>2</sup>

## Organized Sports Participation

Organized sports participation included interclass sports, interhouse sports (special organized sports events within schools for the purpose of selecting participants to represent the school), and zonal, district, regional and national sports events and/or festivals. However, these organized sport events benefited only the elite few, whereas the vast majority of youth were not involved. As per documents from the Ghana Education Service,<sup>13–16</sup> organized sports are offered on biyearly basis for children and youth and do not promote regular participation and adherence in PA. More research and change in policy directions are seriously needed to improve initiatives for increasing PA opportunities PA among all children and youth in Ghana.

## Active Play

There was inadequate evidence to grade active play. Expert opinion suggested a decline in active play due to a increasing absence

of playing areas in schools and decreasing playtime/recreation in school schedules, despite the requirement for having a playing field for operating schools which dated back to colonial times.<sup>17</sup> Data monitoring and evaluating policy enforcement and related research are essential to properly judge the adequacy of this indicator.

### Active Transportation

Easy access to motorized transport in urban areas explains, in part, why few children and youth used active transport. Urban area sidewalks or bicycle paths that can promote active transportation have been rendered unsafe with make-shift stores and dumping areas blocking access to walking or biking safely.<sup>19</sup> Although only 1 study was used to grade this indicator, the experts observed that active transportation (especially walking) was likely more prevalent in rural in contrast to urban areas due to limited access to motorized transportation in rural areas. Since active transportation is associated with increased PA and fitness,<sup>20</sup> it is paramount to explore modes of active transport to/from school in both urban and rural areas.

### Sedentary Behaviors

The relatively high grade for sedentary behavior (B) implies that many children and youth in Ghana spend no more than 2 hours per day on screen time. This likely reflects limited access to devices that promote sedentary behavior (eg, motorized vehicles, electronic screens) especially in the rural areas where majority of children and youth in Ghana reside. There are no national guidelines on screen time and sitting time in Ghana which suggests a need for development of national guidelines for screen time and sitting time for children and youth, and for advancement of research on the health consequences of sedentary behaviors.

### Family and Peers—Infrastructure, Support, Parental/Peer Behaviors

There were no available data to grade this indicator. National data are needed to address the role of parents and peers in childhood PA. There is also a need for research about the nature of household chores assigned to children and youth; many of these include PA, occupational engagement and communal living.

### School—Infrastructure, Policies, and Programs

The grade of D for school related factors highlights major limitations in this domain. Inadequate and unsatisfactory infrastructure, absence of policy for PE and sports in school, lack of equipment and financial resources, lack of training of PE teachers from kindergarten through primary and secondary school levels, a huge gap between policy and practice, curricular demands in teaching PE and coaching sports that exceed teacher competence, and very large class-sizes were major concerns raised by the experts in the evaluation of the current situation in Ghanaian schools. There is an urgent need for the development of policies aimed at increasing PA enabling environments in schools. Surveillance on frequency, intensity, time and type of activity are needed on the teaching of PE in schools with reference to the Ghana Education Service syllabi.<sup>13–15</sup>

### Community and the Built Environment—Infrastructure, Policies, Programs, Safety

The assigned grade of D for this indicator highlights the lack of national guidelines or recommendations for community and the

built environment to promote PA behavior for Ghanaian children and youth. More research is needed to address policy decisions that will encourage collaboration between the Ghana Education Service and other stakeholders regarding facilities to promote PA in communities (eg, recreation facilities, safe sidewalks/bicycle paths, etc). There is also a need for surveillance on usage rates for existing community facilities and programs.

### Government—Strategies, Policies, Investments

A grade of D was assigned to this indicator for several reasons. The Ministry of Education has no policy on after-school sports and PE, although national sports events and festivals for basic and senior high schools are held biannually. Government syllabi are available<sup>13–15</sup> as are requirements (not policies) for participation in school PE. Compliance to syllabi and requirements for participation are unknown but considered inadequate.<sup>16</sup> There is a need to develop policies related to PA and also for research regarding national and local government actions in promoting and increasing PA among children and youth.

### Limitations

Available evidence for the development of the Ghana Report Card was very insufficient. Grades were often based on findings in 3 documents.

### Conclusion

There is lack of evidence to sufficiently describe PA levels of Ghanaian children and youth. PA levels are low. However, sedentary behavior is also low which likely reflects socioeconomic (private versus public schools) and urban-rural contrasts. In addition to the need for objective data on PA levels and sedentary behaviors of children and youth, there is need for development of a national policy and coordination of various stakeholder initiatives to ensure alignment between emerging strategies and investments to improve grades on future report cards.

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