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Results From Ghana's 2016 Report Card on Physical Activity for Children and Youth

Reginald Ocansey, Richmond Aryeetey, Seidu Sofo, Alex Nazzar, Margaret Delali, Prince Pambo, Vida Nyawornota, John Nartey, and Rachel Sarkwa

Background: Currently, there is limited evidence on estimates for physical activity (PA) behavior and sedentary behavior (SB) in Ghana. This report card (RC) is intended to increase awareness and sensitivity about issues surrounding PA and SB in Ghana. **Methods:** Data were collected from peer-reviewed literature, graduate students' theses, physical education and sports documents, and a survey of opinions of stakeholders covering the 10 key RC indicators and benchmarks. The principal investigator harmonized all grades. A consensus meeting of the RC team was held to assign the final grades. **Results:** School and Community grades declined from a *D* in 2014 to an *F* in 2016. SB declined from *B* to *D*. Family and Active Play were not graded in 2014 and now received an *F* and a *B*, respectively. Family and Built Environment were graded *F*, Active Transportation received a *C*, and Government and Overall PA were graded *D*. **Conclusions:** A conscious national investment effort can increase overall PA among children.

Keywords: transportation, exercise, policy

The Republic of Ghana is a middle-income country in West Africa. With a population of about 26 million people, Ghana is a rapidly urbanizing society. As a middle-income country with a free market system, Ghana is becoming increasingly exposed to technologies and environments that contribute to health and nutrition transition.^{1,2} The disease burden is on the rise and can be attributed to a selected number of risk factors including, but not limited to, physical inactivity and sedentary lifestyle.³ Physical inactivity and sedentary behavior (SB) are associated with childhood obesity and are persistent risk factors for noncommunicable diseases.^{4,5} The World Health Organization's (WHO) 2002 report on reducing risks and promoting healthy life reveals that much of this burden could be lowered in the next 20 years if these risk factors were reduced.⁶ Further, the WHO classifies physical inactivity as the fourth leading cause of global mortality and one of the greatest health challenges and determinants for various chronic diseases, such as heart disease, hypertension, diabetes, and psychosocial problems.⁷ Currently, there is limited evidence on estimates for physical activity (PA) and SB among children and youth in Ghana. The meager data obtained for the development of this report present major challenges for the development of effective strategies to combat these risks and establish monitoring and surveillance mechanisms to appropriately assess and evaluate strategies and interventions.^{8,9}

Ghana's 2016 report card (RC) is a synthesis of the available evidence on the PA levels of children and youth and produced by the Active Healthy Kids Ghana (AHKG).⁸ This RC is intended to increase awareness and sensitivity about issues surrounding PA and SB of children and youth, by highlighting areas where Ghana is making progress as a nation and placing emphasis on areas where more attention/action is needed. This is indeed a sustainable and effective way of monitoring and surveilling the PA levels of children and youth. Thus, Active Healthy Kids Ghana (AHKG) plans to periodically develop PA report cards for routine monitoring and surveillance of healthy active living behaviors of Ghanaian children and youth. This way, effective strategies and interventions can be developed and implemented to fight the risks that affect the healthy lives of children and youth.

Methods

This RC is a public sensitivity and awareness PA document developed by AHKG and under the auspices of 12 experts from multidisciplinary areas in government ministries ($n = 7$), nongovernment organizations ($n = 2$), and institutions of higher learning ($n = 3$). Self-report data were collected through a survey of the opinions of key stakeholders in public health ($n = 5$), sports and exercise science ($n = 8$), town and country planning ($n = 2$), local government ($n = 2$), and physical education (PE) and sports ($n = 10$).

Data for the 2016 RC were collected from sources, including peer-reviewed literature, published/unpublished graduate students' theses/dissertations,^{8,10-12} school PE/sports documents and syllabi—all relating to PA among Ghanaian children. No year limits were observed for the document search. The peer-reviewed literature search was, however, limited to 1975 through 2015. Only 3 new documents (from the Ghana Statistical Service and the Ministry of Roads and Highways, Ministry of Health, and the *Journal of Physical Activity and Health*) were added for the development of the 2016 RC.^{3,8,9,13}

Ocansey, Nazzar, Nartey, and Sarkwa are with Active Living & Wellness Alliance Group, Research & Education Center, Nungua, Ghana. Aryeetey is with the School of Public Health; Delali is with the Regional Institute of Population Studies; University of Ghana, Legon, Ghana. Sofo is with the Dept of Health and Human Services, Southeast Missouri State University, Cape Girardeau, MO, USA. Pambo is with the National Sports Authority Medical Directorate, Accra, Ghana. Nyawornota is with Labone Senior High School, Accra, Ghana. Ocansey (rocansey@gmail.com) is corresponding author.

The self-report data were collected through a survey of the opinions of key stakeholders. The survey contained the key benchmarks for each indicator. Stakeholders completed the survey by grading each benchmark under each of the 10 indicators. The principal investigator harmonized the benchmark grades from the stakeholders' self-reports and assigned a grade for each indicator. Thereafter, consensus meetings were held by the RC PA team via online and face-to-face platforms to discuss the grades from the stakeholder survey data, literature published between 2014–2016 and other documents and reports. Through discussions and consensus agreements, the final grades were assigned.

The tools, benchmarks, and indicators included in the survey for the key stakeholders and the development of the current Ghanaian RC were based on those reported in the 2013 and 2014 Active Healthy Kids Canada reports.^{14,15} The grades according to PA indicator in the 2016 Ghana RC on PA for children and youth are displayed in Table 1. The front cover for the 2016 Ghana RC is presented in Figure 1.

Results and Discussion

The 2016 Ghana RC findings are similar to that of the 2014 Ghana RC. No changes in PA levels were observed. Of the 9 indicators, 3 were assigned a grade of *D* and 2 were assigned a grade of *C*. The best performing indicator was assigned a grade of *B*. Three remaining indicators were assigned a grade of *F*. Table 1 shows all grades according to RC indicator in the 2016 Ghana RC on PA for children and youth.

Overall Physical Activity Levels: *D*

The grade *D* assigned to this indicator is based on documented reports and research on PA levels of Ghanaian children, all of which reported that less than 40% of Ghanaian children accrue adequate levels of PA.^{12,16–20} The existing evidence suggests that over 60% of Ghanaian children do not meet minimum levels of PA for health-enhancing benefits.

Organized Sports Participation: *C*

A *C* grade was assigned to Organized Sports Participation based mainly on documentation obtained from the Ghana Education Service (GES)^{18–20} pertaining to sporting activities commonly organized by GES at various levels, including school, zonal, district, regional, national, and community levels. School-level sports participation is within school and includes interclass and interhouse games. Zonal level sports participation is interschool and includes groups of schools assigned to zones. Qualifying schools advance to district-, regional-, and national-level sports participation, respectively. In addition, the GES reports provide evidence indicating that school PE is biased with sports and games activities.^{10,18–20}

Active Play: *B*

Active Play emerged with the highest grade assignment (*B*). Unlike the incomplete (*INC*) grade assignment in 2014, new evidence emerging from interviews and self-reports obtained from school teachers and not-for-profit organizations (that emphasize learning through play) influenced the grading of Active Play in the current RC. Self-reports from school settings revealed that, where playtime was enforced, children engaged spontaneously in a wide range of local active games. Considering the persistent active nature

Table 1 Grades According to Physical Activity Indicator in the 2016 Ghana Report Card on Physical Activity for Children and Youth

Indicator	Grade
Overall Physical Activity Levels	<i>D</i>
Organized Sport Participation	<i>C</i>
Active Play	<i>B</i>
Active Transportation	<i>C</i>
Sedentary Behaviors	<i>D</i>
Family and Peers	<i>F</i>
School—infrastructure, policies and programs	<i>D</i>
Community and the Built Environment	<i>F</i>
Government Strategies and Investments	<i>D</i>

Note. The grade for each indicator is based on the percentage of children and youth meeting 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%; *INC* is Incomplete data.

GHANA 2016 REPORT CARD ON PHYSICAL ACTIVITY FOR CHILDREN AND YOUTH



Ghana 2016 RC

Figure 1 — Front cover of the 2016 Ghana Report Card.

of cultural games among Ghanaian children, including *ampe* and *tumatu* (both involve active jumping while playing), it is not uncommon to see children engage in these games during school break periods. However, in the future, active play may be limited by the increasing absence of playing areas in schools and playtime on school timetables, although having a playing field has been a requirement for operating a school since colonial times. More research is needed in this area.

Active Transportation: C

A *C* grade was assigned to this indicator based on 1 study¹² reporting that 36% of high school students walked or biked to school. Another study reported that 53% of school children were attending schools that were less than 1 kilometer from their place of residence while 17% had their school located at distances between 1 and 2 kilometers. Only 7% were living 5 or more kilometers from their school. A majority of students (74%) walked to school on foot, while 7% commuted by bicycle. The situation is similar for the return journey from school.²¹ More recent data showed that less than 30% of basic school pupils were transported in an automobile to school every day. Further evidence suggested that active transportation persisted in rural communities even more so than in urban. For example, in rural Upper West, 87% of children went to school on foot while in rural Upper East and Northern regions, 86% and 81% went to school on foot, respectively. In urban Greater Accra only 64% of children went to school on foot.¹³

Sedentary Behaviors: D

For Sedentary Behavior, a grade of *D* was assigned based on research evidence¹² and the 2012 Ghana School Health Survey,²² which indicated that between 20% and 70% of children and youth were sedentary. Children attending private schools are more sedentary and more likely to be transported in a car to school, use a computer often, and watch television more frequently and for longer hours.^{12,22} There are currently no national guidelines on screen time or sedentary behavior in general in Ghana.

Family and Peers—Infrastructure, Support, Parental/Peer Behaviors: F

This indicator was graded *F* based on meager evidence obtained through self-report (surveys) from fitness-related organizations, families, and children. There is increasingly limited opportunity for families to engage in community walks, active play, and other forms of active transportation. Experts considered that household chores, occupational engagement, and communal living constitutes family and peer influence on PA. However, this often occurs in rural areas and to a limited extent in urban areas.

School—Infrastructure, Policies, and Programs: D

There are limited data on school environment for PA. The 1 available study¹² indicated that 49% of private schools and 57% of public schools had spacious playgrounds for children and youth and thus the indicator was assigned a *D* grade.

Community and the Built Environment—Infrastructure, Policies, Programs, Safety: F

There are no national guidelines or recommendations for community built environment to promote PA behavior for Ghanaian

children and youth. Limited research exists on built environment. A street level audit of environment barriers to PA in Accra revealed significant environmental barriers to outdoor PA.¹¹ The barriers are mainly due to either the absence of sidewalks, poor access to sidewalks, or poor conditions of sidewalks. More rapid real estate development and commercialization of living spaces makes it more difficult to achieve PA goals. These findings necessitated a grade of *F* for this indicator.

Government—Strategies, Policies, Investments: D

The Ministry of Education has no policy on school physical education and sports, but it biannually organizes national competitions for basic and senior high schools in the country as a whole. Government syllabi^{18–20} and requirements (not policies) exist for participation in PE in Ghanaian schools.

Strengths and Limitations

This current Ghana RC on the PA of children and youth relied mainly on the meager evidence available. Only 1 new report was added to the data gathered for the 2014 RC. A more comprehensive and systematic approach is needed to expand the literature search and the discovery of pertinent policy documents and reports on PA for children and youth. Obtaining opinions of key stakeholders through self-report augmented data from the peer-reviewed publications and documents. This is a major strength of the report.

Furthermore, the diversity of expertise in the RC working group and the key multidisciplinary nature of the stakeholders drawn from different areas in the country added tremendously to the strength of the report.

A major limitation was the lack of nationwide representative data. Available evidence is seriously scant. There is a need for more studies focusing on PA of children and youth in Ghana. Negligible evidence exists in universities on the PA levels of children and youth. Future research in the universities in Ghana on PA will go a long way toward laying the foundation for future use of larger and more representative samples from around the country, including both urban and rural populations.

Conclusion

Even though both the 2014 and the 2016 Ghana RC revealed low levels of overall PA, there is still inadequate effort to constructively develop and introduce effective interventions to improve the situation. For example, the absence of PE and sports policies, and the inadequacy of programs and PE teaching periods on school timetables, are major concerns that pose serious challenges for surveillance and monitoring in PA settings. There is a need for investment in monitoring and surveillance of PA and the development of SB guidelines for Ghanaian children and youth. The grades as reported in the 2016 Ghanaian RC should be treated with caution due to the very limited evidence base on which they were based.

The situation of inadequate PA evidence for children and youth persists from the 2014 RC.⁸ The existing evidence on PA behavior among children is terribly limited. Therefore, there is an urgent need for investing in primary research that will generate population-based evidence. Such research must be designed to be representative of differences across rural and urban areas, in-school and out-of-school children, and across other vulnerability groups, particularly children and youth exposed to child labor. The 2016 RC further calls for investment in routine monitoring in addition to

the primary research in PA and its determinants among Ghanaians, with particular focus on children and youth.

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