INTRODUCTION

In this report, data on overall physical activity levels, organized sport participation, active play, active transportation, sedentary behaviours, family and peers (infrastructure, support, parental/peer behaviours), school (infrastructure, policies and programs), community and the built environment (infrastructure, policies, programs, safety), governmental and non-governmental (strategies, policies, investments) and body composition were collected and analysed. Evidence regarding the promotion of healthy active lifestyles was considered to inform recommendation on initiatives and programmes at home, at school, and in the community, that may promote active and healthy lifestyles for Kenyan children and youth. The report card is a useful tool for advocacy and policy in improving participation in physical activity by highlighting areas where more research and action is needed to better understand and improve the physical activity profile of Kenyan children and youth.

Healthy Active Kids Kenya (HAKK)

Kenya’s 2016 Report Card on Physical Activity and body weight of children and youth is the third report card published in Kenya, after the first in 2011 and the second in 2014. The aim of this report card is to present the best available evidence and increase awareness on factors associated with physical activity and body weights of children and youth in Kenya. The report card, therefore, highlights areas where Kenya is succeeding as a nation and puts emphasis on areas where more action is needed in order to realize healthy active living goals for children and youth. Healthy Active Kids Kenya (HAKK) (http://www.hakkenya.org) plans to produce the Report Card periodically as a means of monitoring healthy active living behaviours of Kenyan children and youth.

The Grading System and Data Sources

This report card was conceptualized, designed and developed by a multi-disciplinary team of experts drawn from different institutions of higher learning in Kenya and produced by the HAKK. The team at various levels identified and synthesized key articles. Data sources included peer-reviewed journal publications, presentations at peer-attended forums, unpublished graduate student theses, and data from other organizations and agencies such as the Kenya National Bureau of Statistics and the Kenya Demographic Health Survey. By consensus, the panel of experts assigned grades based on a set of specific criteria and a comprehensive analyses of available data sources on Kenyan children since 2010 (3 years).

Grading Nomenclature

Grades included:

- **A**: indicates that a majority (≥ 80%) of Kenyan children and youth engage in best-practice,
- **B**: indicates that over 50% (60–79%) of Kenyan children and youth engage in sufficient best-practice activities,
- **C**: indicates that about 50% (40–59%) of Kenyan children and youth engage in healthy active practices,
- **D**: indicates that action or practice is insufficient to adequately promote health and prevent chronic disease due to unequal reach, adoption, or impact. It also reflects a higher potential risk for future disease,
- **F**: Indicates that there were no existing interventions, infrastructure or practices, or that they have been shown to be ineffective. It also reflects the greatest potential risk for future disease,
- **INC**: Denotes there is insufficient data for grading.
## Overall Physical Activity Levels

- **Indicator**: Participation
- **Grade**: C
- **Summary**: Research shows that Kenyan children, particularly those from urban areas, are becoming increasingly sedentary compared to their rural counterparts. Step-count data showed that children from rural Kenya were more physically active than their urban counterparts (14,700 ± 521 steps vs 11,717 ± 561 steps on average) (15).

- **In another approximately 72% of the urban and rural children were classified as physically active as per the global guidelines for physical activity, which recommend that children and youth age 5–17 years old, should accumulate at least 60 minutes of daily MVPA.**
- **Results from another study found that the mean daily time spent in light physical activity by Kenyan children was 463 minutes, mean daily time spent in moderate physical activity was 32 minutes and mean daily time spent in vigorous physical activity was only 4 minutes.**
- **Overall, there are few studies that have sought to determine the proportion of Kenyan children meeting global physical activity guidelines.**
- **Nationally representative data on physical activity is needed to accurately determine the overall activity patterns among Kenyan children and youth, and this must be prioritized by key stakeholders.**

## Organized Sport Participation

- **Indicator**: A study of children in the Naivasha sub-tribe of the Kalenjin community in the Rift Valley found that boys in urban areas spent 12.8 ± 11.8 hours/day in sport activities compared with rural boys, who spent 3.20 ± 17.3 minutes/day.
- **A school-based study conducted in Nairobi found that a majority of the schools offered sporting activities and encouraged participation by pupils within the schools. More than half of participating schools offered football, volleyball, track and field, and swimming.**
- **Socio-economic status (SES) was also identified as a confounder to the disparity in organized sports participation by children and youth in Kenya. A sample of youth in Kenya reported that those from higher SES frequently took part in types of organized sports that were viewed as more prestigious and demanding with respect to equipment cost, while those from lower and middle SES generally dominated in less expensive sporting activities like netball, hockey and soccer among others.**
- **Based on the existing data and expert consensus, it was estimated that about half of Kenyan children and youth participate in organized sports.**

## Active Play

- **Indicator**: Active play
- **Grade**: B
- **Summary**: Research shows that while there are significant sex differences in children’s preferences for games, both Kenyan boys and girls alike enjoy cooperative and competitive play activities.

- **In a different study conducted in urban Kenya, children reported spending 6.0 hours on average in outdoor play, either on weekend-days, or before and after school. The study found that, overall, on weekends, majority of children spent time outdoors, followed by after school, and finally the least time spent outdoors was before school. Time spent outdoors by the children on weekends was positively correlated with physical activity.**

## Active Transportation

- **Indicator**: Active transportation
- **Grade**: B
- **Summary**: A study conducted among 9–12 year old school children in Nairobi established that 76% and 24% of the sampled school children, mainly in peri-urban areas of Nairobi, walk and use car/van modes of transport respectively.

- **Self-reported data revealed that 87% (58 walking, 29 running) of children from a rural setting in Kenya used active means of transport to and from school while 42% (41 walking, 1% running) of urban children used the same.**

- **It was noted that over half of urban children (58%) used a car or bus to travel to or from school. A different study confirmed higher levels of active transport to and from school among rural children compared to their urban counterparts. Among rural males, 0% used cars, 19% walked and 8% ran to school, and 0% of the rural female children used cars, while 40% walked and 60% ran. Among urban males, 56% used cars, 39% walked and 12% ran to school, while 51% of the urban female children used cars, 43% walked while 6% ran to school.**

- **In the overall sample population, 26% of the children used cars while 75% walked or ran to or from school.**

- **Seventy percent (70%) and 34% of urban and rural parents respectively reported that they were aware that physically active during their childhood compared to their children, supporting the notion of generally lower use of active transport to and from school by school children.**

- **Takenn together, the results are indicative that well over half of Kenyan children and youth use active transport to/from school, with rural residing children faring on better compared to their urban residing peers.**

## Sedentary Behaviour

- **Indicator**: Sedentary Behaviour
- **Grade**: B
- **Summary**: Although there is paucity of literature in this area in Kenya, a recent study of children in Nairobi found that directly assessed sedentary time was 298 minutes (66 hours) per day. Seventy (70) more minutes were spent by children in sedentary activities during the school week (420 minutes) compared to weekends (349 minutes).

- **Rural living children spent less time in sedentary activities (555 ± 67 minutes/day) compared to their urban counterparts (678 ± 95 minutes/day).**

- **Further, 50% of urban children spent more than two hours per week on screen-related activities, compared to only 30% of their rural peers.**

- **Given the limited data available to inform this indicator, expert consensus largely informed the conclusion that over 50% of Kenyan children and youth are engaging in insufficient best practice activity.**

## Family and Peers

- **Indicator**: Family and Peers
- **Grade**: C
- **Summary**: A recent study in Kenya found that higher maternal and paternal education levels, and household SES, were associated with a lower likelihood of children meeting the physical activity guidelines.

- **Further, parental perception of positive neighbour social cohesion, positive environments and connectivity, and negative child safety concerns, were associated with higher child physical activity.**

- **There was limited data available to inform this indicator; however, expert consensus concluded that this is an area that ought to have more emphasis, and that we were only less than half of Kenyan children and youth are getting the recommended best practice activity.**

## School

- **Indicator**: School
- **Grade**: C
- **Summary**: In Kenya, government policy requires that public schools allocate 40 minutes for physical education (93), three times a week during school days.

- **A recent study found that most children (86.8%) reported to have participated in PE lessons 1–3 days in a week.**

- **Only 13.8% of children from private schools and 13.2% of children from public schools indicated they did not take part in any PE classes during the past week.**

- **However, it is noteworthy that anecdotal reports indicate that in some cases, PE lessons may be scheduled, but used to teach examinable subjects due to pressure placed on these schools to perform well academically.**

- **Research found that 68.9% of a sample of schools in Nairobi have policies or programs on physical activity, while 51.7% reported having committees in-charge of overseeing the drafting and implementation of healthy eating and physical activity policies.**

- **With respect to infrastructure, 65.5% of a sample of schools in Nairobi were found to have a sports field within their grounds that children could use to engage in physical activity; however, a majority of schools (93.1%) had no access to a gymnasium, a fitness room (86.2%), or an expansive indoor room (75.9%) for physical activity (e.g., auditorium or dance studio). Close to half of the sampled schools (48.3%) had no access to a swimming pool. Overall, private schools, mainly in middle to higher SES areas, offered a wide range of, and better quality facilities to encourage physical activity compared to public schools.**

- **The findings and expert consensus arrived at the conclusion that we were only succeeding with about half of Kenyan children and youth for this indicator.**

## Community and the Built Environment

- **Indicator**: Community and the Built Environment
- **Grade**: D
- **Summary**: In Kenya, there are stark differences between urban and rural settings in this respect, with a poorer built environment found in rural areas compared to urban cities.

- **However, this seems to have little bearing on the accumulation of physical activity, active transportation, and active play among children in rural areas, who are found to be more active than their urban counterparts. There is, however, no known non-governmental or governmental approaches to tackle the built environment and its impact on children’s physical activity in Kenya.**

- **There is need for all stakeholders to address the bridging of this gap.**

- **Expert consensus suggested that less than half of Kenyan children and youth for this indicator, and mainly those of higher SES where the built environment support physical activity.**

## Governmental and Non-Governmental

- **Indicator**: Governmental and Non-Governmental
- **Grade**: D
- **Summary**: In 2015, the Kenya National Council for Children’s Services published a National Plan of Action for Children.

- **The plan is anchored on the United Nations Convention on the Rights of the Child (UNCRC) which Kenya signed in 1990.**

- **The plan recognizes the right of all Kenyan children to leisure, play and recreation appropriate to the age of the child.**
Kenya's 2016 Short Form Report Card on the Physical Activity and Body Weight of Children and Youth

- This is a step in the right direction. Such policies will provide the necessary impetus for promotion of physical activity.
- Expert consensus suggested that only about half of Kenyan children and youth engage in healthy active practices.

Body Composition

- A study of 1,495 children aged 3 to 5 years from rural and urban areas of Kenya revealed that over 30% were stunted, 16% were underweight, 4% were wasted, 18% were overweight, and 4% were obese.
- A study conducted in Nairobi found that 3.7% of children were underweight, 14.4% were overweight, and 6.4% obese (20.8% overweight/obese) based on WHO cut-points.
- Overweight is associated with an energy imbalance, that is energy intake and expenditure, and being overweight has been found impact on self-esteem, and the possibility of developing juvenile diabetes.
- These findings emphasize the need for generation of nationally representative estimates of the body weights of children and youth, since we are only succeeding with well over half of Kenyan children and youth, with large negative shifts in this indicator expected.

Recommendations for Action

1. Nationally representative data on physical activity patterns and body weights of Kenyan children and youth is needed to inform policy and practice.
2. Monitoring physical activity knowledge, attitudes and behaviours of Kenyans as well as factors which facilitate or impede access to physical activity opportunities is required.
3. There is need for continuous support both in cash and in kind to allow the production and dissemination of report cards to monitor the healthy active living behaviours of Kenyan children and youth.
4. Collaborative efforts among relevant Kenyan government ministries, county governments as well as non-governmental organizations are necessary to combat the increasing NCD prevalence.
5. Kenyan children and youth need to be supported in making physical activity choices that are convenient, sustainable, and compatible with their needs and interests.
6. There is a need to enhance the built environment that supports the integration of physical activity into daily life.
7. Increasing knowledge and understanding of interventions, which are effective in changing physical activity knowledge, attitudes, and behaviours, is required.
8. Increasing knowledge and understanding of the relationships between physical activity, healthy eating and a range of other health determinants that contribute to or inhibit optimal health is recommended.
9. There is a need for continuous networking with African and other international experts to implement promising practices for research, surveillance and public health interventions.
10. Preserving the health of children and youth through healthy active living needs to be as high a priority as treating sick children.

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