Healthy Active Kids

South Africa Report Card 2010

Report card on the physical activity, nutrition and tobacco use for South African children and youth.

SPORTS SCIENCE INSTITUTE OF SOUTH AFRICA

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INTRODUCTION

South Africa faces many current and future challenges, not least is the growing burden of non-communicable or lifestyle diseases affecting more than 2 in every 5 South African adults.

The global community recognises 3 major lifestyle risk factors (smoking, inactivity, obesity & unhealthy eating), which predict 4 major diseases (cardiovascular disease, diabetes, lung disease and cancer), and account for over half of adult deaths worldwide.

South Africa is home to nearly 16 million children and youth between the ages of 5 and 20 years. The question remains: to what extent are these children, South Africa's greatest asset, at risk for these lifestyle diseases? What factors shape the health behaviour and lifestyle choices of South African children? How can a supportive social, community and built environment be created to encourage healthy lifestyles?

Healthy lifestyle behaviours develop during childhood and track across the lifespan, and early life experiences most often lay the foundations for adult health and quality of life. By preventing or reducing the prevalence of childhood obesity, for example, we may reduce the prevalence in adult obesity by between 7% and 13%.[2]

If physically active children in South Africa remain active into adulthood, thereby reducing the prevalence of sedentary or inactive lifestyles,[3] it is likely to impact on the prevalence of lifestyle diseases, such as heart disease or diabetes, in at least a portion of South African adults[4].

Building on from the first *Healthy Active Kids South Africa Report Card* in 2007, this 2010 report card serves to highlight the current health status of South African children and youth, with particular reference to physical activity, healthy eating, maintaining a healthy weight, tobacco use and alcohol intake. These health behaviours and indices are considered along with those factors which influence or shape the behaviours, within the family and home, amongst friends and peers, in school and community settings, and as a result of the built environment, policy or legislation.

Importantly, the *Healthy Active Kids South Africa 2010 Report Card* identifies areas for action, promising initiatives and successful strategies that may impact on lifestyle choices.

Making the grade

The scientific panel set specific criteria on which to base their "marking" or grades. "Reach" refers to the extent to which the practice is accessible to all or most South African children; "Impact" describes the effectiveness of the practice, intervention or legislation; "Adoption" refers to the extent to which the practice or intervention is implemented. These are explained briefly below:

A (80-100%)	Reflects behaviour/s, environments and policies that place children and youth at lowest risk for future non-communicable diseases. Denotes the best practice to promote health and prevent chronic disease and/or in multiple settings with excellent potential for reach, impact and/or adoption. **Best practice, wide reach and impact, lowest risk**
B (70-79%)	Reflects behaviour/s, environments and policies that place children and youth at relatively lower risk for future non-communicable diseases. Denotes the best practice to promote health and prevent chronic disease and/or in multiple settings with moderate potential for reach, impact and/or adoption. **Best practice, moderate reach and impact, low risk**
C (60-69%)	Reflects behaviour/s, environments and policies that place children and youth at moderate risk for future non-communicable diseases. Denotes good practice to promote health and prevent chronic disease and/or in multiple settings with limited potential for reach, impact and/or adoption. **Good practice, limited reach and impact, moderate risk**
D (50-59%)	Practice which is insufficient to adequately promote health and prevent chronic diseases, which may be due, in part, to lack of reach or adoption and impact. Reflects behaviour/s, environments and policies that place children and youth at higher risk for future disease. or where the evidence is insufficient to interpret. **Inadequate practice, limited reach and impact, higher risk**
F (<50%)	Either where no interventions, infrastructure or practices exist OR where these have been shown to be ineffective. Reflects behaviour/s, environments and policies that place children and youth at greatest risk for future disease. **No interventions or ones that are ineffective, greater risk**
NE	Categories of behaviour/s, environments and policies for which there are no data. Promising initiatives but for which there is no evaluation. **No evidence, or promising initiatives but insufficient evidence**

Scientific Advisory Panel, data sources and report card development

The Scientific Advisory Panel for the 2010 report card includes nationally and internationally recognised researchers, national non-governmental organisations, as well as public and private sector implementation partners. The following persons, representing their respective institutions, have contributed to the evaluation of relevant literature and compiling the 2010 report card: Dr. Anniza de Villiers (Medical Research Council Chronic Diseases of Lifestyle Research Unit), Dr. Nelia Steyn (Centre for the Study of Social and Environmental Determinants of Nutrition (CSSEDN), Population Health, Health Systems and Innovation (PHHSI), Professor Yoga Coopoo (Adjunct Professor, Exercise Science, Therapeutic Sciences,

Faculty of Health Sciences, University of the Witwatersrand), Professor Salome Kruger (Leader, Childhood Public Health Nutrition, Centre of Excellence for Nutrition, Faculty of Health Sciences, Northwest University), Professor Shane Norris (Department of Paediatrics, University of the Witwatersrand), Professor Thandi Puoane (School of Public Health, University of the Western Cape), Dr. Catherine Draper, Jared Forbes, Dr. Tracy Kolbe-Alexander, Professor Michael Lambert, Professor Estelle Lambert, Dr. Lisa Micklesfield (MRC/UCT Research Unit for Exercise Science and Sports Medicine), Dr. Vash Mungal-Singh, CEO, and Ayesha Seedat, Registered Dietitian, (Heart and Stroke Foundation of South Africa), Mr. Ricardo Siljeur, Mrs. Kathleen McQuaide-Little (Sports Science Institute of South Africa), Dr. Jill Borresen, Avi Josephs, and Ms. Karen Johnson (Discovery Vitality).

This report card only includes data from literature published within the past 6 years, from 2004 onward.

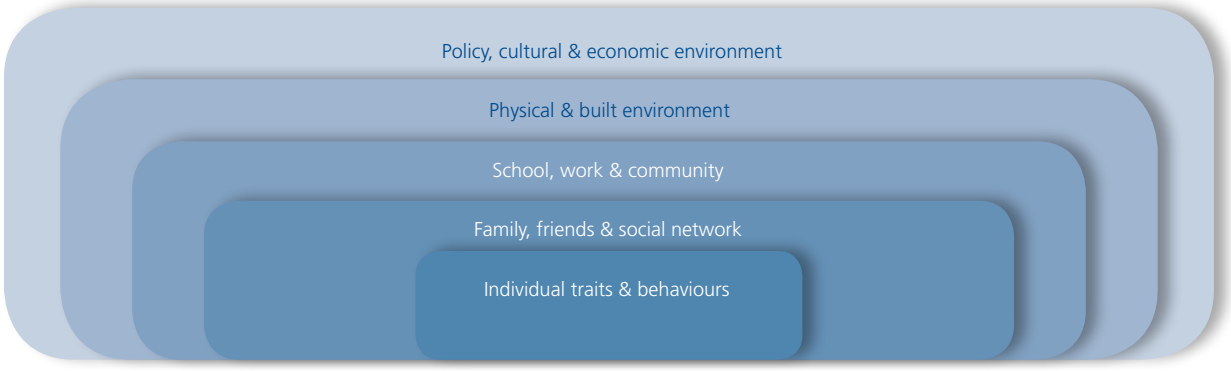
All information is extracted from work available in the public domain, which included the review of more than 100 peer-reviewed published manuscripts, as well as government-funded monographs and reports, and library copies of MSc and PhD theses and dissertations. The panel is particularly grateful to Professor Priscilla Reddy and the Health Promotion Research and Development Unit of the Medical Research Council, South Africa, who produced the *Second South African National Youth Risk Behaviour Survey 2008*, which was cited extensively throughout this report card.

In some cases, best practice examples were taken from the "grey literature", as long as a reference or source could be accessed in the public domain. Three working groups (addressing nutrition, physical activity, and tobacco/alcohol use) evaluated and summarised the evidence and where consensus was reached, assigned a grade. A final writing group edited the document, and checked for consistency in mark allocation.

Socio-ecological model and health behaviour

Health and health behaviours are shaped and influenced by both social and physical environments, which include: family, friends and social networks; the school, workplace and community; the physical and built environment; as well as the policy, cultural and economic environment. This useful framework can help to: 1) identify areas for action and targets for interventions, and 2) provide a tool for programme planning to change health behaviour, making the healthy choice the easy choice.[5]

In this report card, the following health behaviours and determinants were considered in South African children and youth: physical activity and inactivity, healthy eating and maintaining a healthy body weight, and tobacco and alcohol intake.



South Africa
OVERALL GRADE 2010:
C-

Physical activity/inactivity behaviour

Physical activity, physical education and organised sport at schools: **Grade D**

Participation in physical education and physical activity demonstrates a downward trend from the 2007 Healthy Active Kids South Africa Report Card. Less than 70% of high school learners report having regularly scheduled physical education. Physical education classes in disadvantaged primary schools are even less frequent.

Physical education classes provide an ideal vehicle for promoting health-enhancing physical activity in children and youth. Despite this, physical education classes are not distributed equally across socio-economic status, with less than ⅓ of schools from disadvantaged communities having regularly scheduled physical education compared with ¾ of the more advantaged schools.[6] It is concerning that in the National Youth Risk Behaviour Survey, conducted in 2002 and 2008,[7,8] there was a 5% decrease in the proportion of high schools with scheduled physical education classes, from 71% to 66% of those surveyed.

Less than half of South African youths surveyed participate in enough physical activity for it to be considered 'health-enhancing'.

In 2002, only 45% of adolescents participated in sufficient vigorous physical activity to be considered health-enhancing. In 2008, this decreased to only 43% of those surveyed. Less than ⅓ of youth surveyed participated in moderate activity, and nearly 42% did little or no physical activity weekly.[8]

Sports and recreation: **Grade C**

In 2005, the Department of Sport and Recreation conducted a national survey to better understand patterns of sports participation drivers and barriers. This was in response to the over-arching theme of the government white paper on sports and recreation, "Getting the Nation to Play", and recognising the role of sport and recreation in promoting quality of life and health, physical and mental well-being, and nation-building.[9]

Just over half of adolescents and young adults between the ages of 16 and 20 years participate in some form of sport or recreational activity, with participation increasing with socio-economic status.

Screen time: **Grade F**

There is a growing body of evidence linking 'screen time', including television viewing and computer use, with an increased risk of overweight and obesity. What is concerning is that nearly 30% of South African youths report watching more than 3 hours of television daily.[8] Furthermore, this number is up by 4% since 2002, when 1 in 4 South African adolescents reported similar levels of television viewing.

Nearly 1 in 3 South African adolescents watch more than 3 hours of television daily, and the trend has risen by 4% since 2002.

Active transport: Walking and cycling: **Grade C-**

In a recent survey of grade 8 learners from an urban township, 100% reported walking on weekdays, most likely to and from school.[10] However, less than 70% of these same learners reported walking on weekends.

In a learner transport survey in the Western Cape, nearly 80% of children from the more disadvantaged urban communities walked to school and almost none cycled. Conversely, in better resourced neighbourhoods, only 11% walked to school, and about 4% of learners cycled.[11] Just over 40% of learners surveyed who did walk to school, had journeys lasting less than 10 minutes. Only ⅓ of learners walked for between 11 and 20 minutes.

Approximately 60-70% of learners surveyed walk to school, and the average journey is between 10-20 minutes. Given a choice, fewer than 1 in 5 would walk or cycle.

Physical fitness levels: **Grade C**

There is relatively little data concerning health-related fitness levels in South African children and youth. However, in one national youth fitness survey, involving more than 10 000 children between the ages of 7 and 13, fitness levels were generally lower in those from disadvantaged backgrounds.[12,13] Overall shuttle run scores were similar to those in other more developed countries. However, children who were overweight, stunted or underweight had lower fitness levels than those who had a normal weight.

Fitness in South African children is linked to nutritional status. Normal weight children have fitness levels that are comparable to those of children from other better resourced countries, whereas stunted or overweight children have lower levels of fitness.

Socio-ecological determinants of physical activity/inactivity

Family/peers/social networks: **Grade C**

(Limited by reach and socio-economic gradient)

In children and youth, physical activity behaviours may be shaped by social networks, family and friends. In South Africa, children from single-parent homes, or children who come from more disadvantaged circumstances, are less likely to participate in leisure-time physical activity.[6]

On the other hand, educational attainment of mothers in particular, is positively associated with physical activity.

Parental concerns regarding personal safety and the lack of facilities or resources for physical activity in the community, may be responsible for the apparent underlying socioeconomic gradient demonstrated for physical activity behaviour in children.[14]

Peer influences are evident in high school girls, who indicate that they participate in physical education and sport to 'get in shape, get fit', make new friends, have fun, learn skills, relieve stress, and get away from problems at home.[15]

Participation in sports and recreational activities are linked to parents' participation, as well as encouragement by family members, with more than 1 in 4 youths surveyed citing social reasons and friends as factors which motivated them to participate in these activities.[9]

Participation in physical activity in South African children is linked to their social circumstances, peer and parental support and encouragement.

School settings and physical education: **Grade D**

On the one hand, school is the single most important factor predicting participation in sports and recreational activities in adolescents and youth.[9] However, participation is not uniform, and lower levels of participation occur in schools that are more economically disadvantaged.

Generally, learners have demonstrated a positive response to physical education in the curriculum.[16,17] There is also some indication that high school learners are receptive to health education activities involving physical activity, nutrition and smoking cessation in school.[17] However, they prefer interactive sessions, and the outcomes for which they are responsible need to be clear.

On the other hand, educators who are involved in delivering physical education through the life orientation curriculum feel inadequately prepared.[18] Principals and educators have also highlighted the lack of adequate sports fields, equipment and training kit as barriers to implementing school sport and physical education.[19] In addition, many educators are also at risk for chronic, non-communicable diseases, are overweight or inactive, and would benefit from lifestyle interventions.[19]

While learners are generally positive toward sport and physical education, educators often feel under-prepared and under-resourced.

Transport, the built environment and communities: **Grade D-**

In learner transport surveys,[11] it is clear that given an alternative, of the nearly 60-70% of children from disadvantaged communities who walk to school, most would choose other means of transport. Reasons why children do not cycle to school include the risk of theft, road traffic and concerns for personal safety. However, 40% of children surveyed indicated that they would be willing to cycle to school, if a bicycle was available.

Most children only walk to school because they have to. Those who would cycle are limited by access to a bicycle and concerns for personal safety, even if they have access.

In a survey of South African pedestrian traffic fatalities, children and adolescents were highlighted as a vulnerable group because they are at particularly high risk in the afternoons and early evenings. In this survey, it was suggested that there was a need for education and awareness programmes on increasing visibility with reflective clothing, and also by increasing access to sidewalks, and introducing traffic calming strategies.[20]

Parks and green spaces: **Grade C-**

There are ample urban green spaces in South Africa. However, they are unequally distributed, with the area of lowest housing density associated with the highest area of green space per capita.[21]

The need for a more equitable distribution of green urban spaces should be prioritised by urban planners.

There is limited information concerning access to recreational facilities, parks and playgrounds, and sporting facilities.

Legislation and service delivery: **Grade B-**

In the annual report for 2008, the Department of Sport and Recreation highlighted the successful implementation of Siyadlala or the mass participation programme.[22] This programme met and exceeded targets including: the number of people trained in sports and recreation leadership, the number of hub coordinators trained, the number of people participating actively in the programme, the number of recreation clubs established, greater representation of women and girls, and regional participation in indigenous games festivals.

The Department of Sport and Recreation's mass participation programme, Siyadlala, has recently been evaluated. The programme is meeting, and in some cases exceeding, targets for participation and implementation.

On the other hand, the existing collaborative agreement between the Department of Education and Sport and Recreation South Africa, has experienced some challenges, ranging from lack of regular meetings, lack of clarity regarding roles and responsibilities, and the lack of a common understanding of delivery. The two departments have put measures in place in order to resolve these issues.

Policies, programmes and interventions to promote physical activity

Department of Education's Curriculum and Assessment Policy Statement: **Grade NE**

The Department of Education released the amended Curriculum and Assessment Policy Statements (CAPS) that have come into effect from January 2011.[23] There is provision made for 2 hours of weekly physical education in the Foundation Phase and 1½ hours per week in the Intermediate primary school phase under Life Skills. The stated objective of physical education in Grades 4-6 is to 'allow learners to enjoy the health benefits of exercise and develop social skills through participation'.

An important change is that, in the senior phase and in grades 10-12, there will be a fixed period dedicated each week to physical education, labelled as such in the school timetable.

This policy is in line with global calls for action, such as the Toronto Charter for Physical Activity, which includes recommendations for 'policies that support high quality compulsory physical education, active travel to school, and physical activity during the school day'.[24]

The amended CAPS statement and changes to the curriculum have not yet been evaluated.

School-based interventions: **Grade NE**

There are a number of promising NGO-partnered or private sector sponsored school-based interventions designed to promote physical activity and healthy eating.

Preliminary evaluation of these school-based programmes suggests that they increase nutrition and physical activity knowledge, participation in physical activity, improve self-efficacy and lower barriers to participation.[25,26,27]

However, evaluation is still limited.

The formula for most of these interventions follows international and global recommendations, which include: whole school intervention with a curriculum component, addressing the school nutrition and physical activity environment, providing educator training, and including some family or parental involvement.[28,29]

Non-motorised transport initiatives: **Grade NE**

Non-governmental organisations (NGOs), such as the Bicycle Empowerment Network (BEN), in conjunction with government (Department of Transport's Shova Kalula, or 'Pedal Easy' project) have been instrumental in distributing refurbished, used bicycles to learners and workers in South Africa.

Last year, more than 7 000 bicycles were distributed and training was provided to learners with respect to road safety, bicycle maintenance and repair skills were given to budding entrepreneurs.[32]

BEN also highlights the ambitious non-motorised transport plan that is currently being implemented in the city of Cape Town. For example, the Klipfontein Corridor Project will result in about 40 km of bicycle lanes and pedestrian upgrades, with a further 16.5 km of this along the West Coast road. The impact of these projects on the use of bicycles for non-motorised commuting, and on personal safety, has not yet been evaluated.

Sport for development initiatives: **Grade B**

Physical activity and sport have been used by non-governmental organisations (NGOs) as a platform for development of social capital and social cohesion. NGOs involved in Sports for Development have also identified health as a key outcome, and have begun to play a significant role in the fight against HIV and AIDS, tuberculosis and malaria in Africa, along with promoting physical activity. NGOs function through fundraising, education, mentoring, advocacy, programme implementation, and development of local capacity.

There are two examples of successful Sports for Development programmes in South Africa. The first is the Grassroots Soccer Resiliency Programme, which has been shown to improve youths' decision-making, and to develop creative ways to stand up against negative peer pressure. Participants became better equipped to make decisions themselves.[30] More recently, the F-Marc '11 for Health' programme incorporated 11 health messages, along with football instructions, in the Grassroots Soccer initiative. Children receiving the intervention, along with football training, were better able to recall the messages.[31]

Sports for development programmes provide an effective platform to promote health through sport and physical activity in children and youth.

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Nutritional indices/body composition

Overweight/obesity: **Grade C-**, and Stunting: **Grade D-**

The problem of the co-existence of over- and under-nutrition remains, and the prevalence of overweight and obesity in teens has increased between 2002 and 2008 (overweight from 17 to 20% and obesity from 4 to 5%).

Despite this trend, stunting is also prevalent, and reported in 13% of teens surveyed (up from 11% in 2002). Stunting is also prevalent in over 25% of rural and about 12% of urban primary school children. Because South Africa has not managed to reverse the trends for these nutritional indicators, marks for overweight and obesity have decreased and have stayed the same for stunting (in the absence of new data).

Body fat distribution: **Grade NE**

There is some indication that stunting is associated with increased subcutaneous fat in both pre-adolescent boys and girls.[33]

Fruit and vegetable intake: **Grade D**

South African children report eating a combined intake of just over 2 servings of fruit and vegetables per day, with less than 1 serving of fruit per day.[34]

It is concerning that children from poorer households, or who were stunted or wasted, had lower intakes of fruits and vegetables compared to better nourished children, or those from more affluent households.

Adolescents fair better, with over 58% of those surveyed reporting that they eat fruit often.[8]

Fast food intake: **Grade F**

From a practical perspective, fast food intake is very common in teens and young adults, and was highest in young men and in individuals from a lower socio-economic background.[35]

In a recent survey, nearly 30% of those interviewed ate fast food between 2 and 3 times per week, and nearly 40% had eaten fast food often in the week preceding the interview.[8,35]

School tuck shop, snacking and beverage intake: **Grade D**

We also have no indication that tuck shop intake or food choices are changing in children since 2007. Nearly 45% of adolescents surveyed often buy from the school tuck shop, with more than 1 in 5 buying sweets, chocolates and crisps.[8]

Well over half of the learners reported drinking sweetened cool drinks often (more than 4 times) in the week preceding the interview.[8]

This is the line with the tuck shop purchasing patterns described in the 2007 report card, in which the majority of foods eaten were unhealthy or less desirable options.

School feeding scheme or National School Nutrition Programme: **Grade C**

The National School Nutrition Programme (NSNP) in South Africa is designed to enhance the educational experience through hunger alleviation, encouraging attendance, and addressing micronutrient deficiencies.[37] To eligible children and low income schools, it aims to provide 30% of daily energy requirements of the child.[37,38,39] Additionally, the school feeding programme incorporates the use of school gardens to stimulate local farm production, and to promote healthy lifestyles.

"It is estimated that roughly 7 of the 12 million total public school students in the 2008- 2009 school year benefitted from school feeding programmes."[38]

Challenges to implementation include variation in cooking facilities between schools, utilisation of local resources, gardens, food products, lack of potable water at some schools, lack of basic equipment and utensils necessary to prepare and serve meals, inconsistent food quality and safety, and an inconsistent infrastructure.[40]

Determinants of nutritional status and eating behaviour

Family/peers/social networks: **Grade C-**

Factors that may be associated with obesity and overweight include perceptual body image, particularly in girls. In some cases, a larger body size was associated with beauty, strength, and health.[42,43] In other examples, there was some awareness that overweight and obesity were unhealthy and led to certain chronic diseases. There is a need for changing social norms, and creating awareness for a healthy body weight in teens and young adults, through school curriculum, media and perhaps social networking.

Individual consumer behaviour: **Grade D-**

There is limited evidence concerning the intake of fast food in young South African adults and adolescents. In a recent survey, nearly a third of young people surveyed ate fast food between 2 and 3 times per week. What was surprising was that fast food intake was higher in persons with a lower socio-economic status, and in men.[36]

Advertising and media: **Grade F**

In a recent study, nearly 20% of advertising time on South African television was related to food, over half of which was of poor nutritional value.[36]

Media and advertising may even play a role at the school level. In a recent survey of over 100 schools, soft drink advertising was twice as prominent than posters related to healthy eating or physical activity.[19]

National School Nutrition Programme and school vegetable gardens: **Grade C**

In a recent evaluations of the National School Nutrition Programme (NSNP),[38,39,40,41] just over 50% of educators and principals surveyed indicated that their school had a vegetable garden. In each case, these gardens were being used to supplement the NSNP and, in about ¾ of the schools, were incorporated as part of the curricula.

"By March 2009, the National School Nutrition Programme supported some 5,6 million learners in about 18 000 schools during school terms, at a cost of R1,50 per child per day. This programme received an additional R4 billion in 2009/10 to enhance the programme's sustainability."[39]

"There were 6 503 food gardens in schools. About 26 408 food handlers are working on the programme and receive a payment every month."[44] In a recent survey, 1 in 2 schools had a vegetable garden.

A recent evaluation of the school feeding scheme showed that the programme played an important role in stimulating local economic development and job creation, by boosting the local suppliers who provide such items as vegetables and bread.

Food and beverage industry: **Grade D**

In 2007, the total income for the food and beverages industry was R27 035 million. The largest contributors to total income were 'Restaurants, coffee shops and tearooms' (R12 575 million or 46,5%), followed by 'Take away/fast food outlets' (R7 703 million or 28,5%). An important consideration was that the 'Take away' sector spent R206 million on advertising annually.[46]

Food security: **Grade F**

In a recent survey of urban adults, more than a third reported that as children they went to school or to bed hungry. This early experience of childhood hunger was a significant predictor of adult obesity in South African women.[45]

"In addition, the low frequency of fruit and vegetable consumption is linked to adverse socio-economic conditions and household food insecurity in South Africa."[34]

There is also some indication that, particularly in rural settings, healthy food may be a more expensive option than a less healthy equivalent. A simple comparison between a day's intake purchased from small, rural shops showed that the healthy version was nearly twice the cost of the less healthy option.[47]

There is a need for national programmes and food policies that will ensure that healthful foods are accessible and affordable to all individuals.

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Policies, programmes and interventions to promote healthy eating and nutritional adequacy

School-based interventions: **Grade NE**

These may include comprehensive, multi-component programmes, which address the curriculum, food service, the food environment and policy in the schools, and encourage parental involvement. There are a number of programmes like this that are currently undergoing evaluation.

National School Nutrition Programme: **Grade NE**

The 2009/2010 annual report on the national school feeding schemes showed that, overall, the programme was being effectively implemented. Within each province, special events were held for recognising service excellence or to promote nutrition education. In addition, some provinces produced a cook book, or tuck shop guidelines.[37]

In evaluating the National School Nutrition Programme, it showed that it also has the desired outcome of increasing learner attendance at school.

Food gardens: **Grade C**
(for contribution to NSNP),

Grade NE
(for changing fruit and vegetable intake of learners)

Perhaps the most promising nutritional intervention is the development of food gardens in schools. There are numerous NGOs involved, in conjunction with schools, private sector partners, development and aid organisations, along with local and national government, in promoting sustainable food garden initiatives in schools.

"Recent collaboration with the Department of Agriculture has led to an increase of school food gardens, where the learners help cultivate the crops to be used in their meals. The Department of Agriculture provides funding for this endeavour, in addition to agricultural equipment and training."[37,38]

Tuck shop policies: **Grade NE**

At present, there are no published examples of data or tuck shop policies implemented within South Africa. The South African Department of Health is currently developing a policy guideline for schools.

Smoking and tobacco using behaviour / alcohol use

Smoking prevalence: **Grade D**

Prevalence of smoking amongst South African adolescents has remained constant since the last report card, although the levels remain concerning, particularly in light of South Africa's smoking legislation. Prevalence is generally higher in males than females, and higher in urban areas, especially the Western Cape. The majority of smokers start smoking before the age of 19, with 6.8% starting under the age of 10 years.

Up to 29.5% of adolescents report having smoked, with 21% admitting to being current smokers (more than 1 per day in the last month),[8] which is almost double that of global prevalence estimates.[49]

Among adolescents, 5.8% report current frequent cigarette use (more than 20 days in the past month). Of current smokers, fewer smokers tried to quit (45.4%) than previously reported, and the use of smokeless tobacco is on the increase (12.1%).[8]

Alcohol use: **Grade D**

From the latest Youth Risk Behaviour Survey (YRBS) 49.6% of learners had tried alcohol.[8] More males than females had tried alcohol.

The Western Cape had the highest prevalence at 71% and the Eastern Cape had the lowest at 36.2%.[8] Binge drinking can be defined as having 5 or more drinks in a few hours on one or more occasions within the month. This was reported by 28.5% of learners.[8]

Again, this behaviour was more prevalent among males than females. Two countries with comparable data are the USA and Hungary. In the USA 10.7% of learners reported this behaviour compared with 27.5% from Hungary.[50]

Similar data was gathered from the U.K. and Ireland where the drinking behaviour was reported to happen at least 3 times in the month. This was done by 30% of learners in the U.K. and 31% in Ireland, which along with Poland had the highest rate of reported binge drinking according to the World Health Organization (WHO).[50]

With close to half of learners within the YRBS reporting having tried alcohol, along with having a concerning prevalence of reported binge drinking when compared to other countries, this demonstrates that a considerable amount of work is still needed to promote healthy lifestyles regarding alcohol use.

Determinants of smoking, interventions and policy

Determinants of smoking: **Grade D**

There is a range of individual and social factors influencing the smoking behaviour of adolescents, including peers and family. Although there is peer influence on adolescents to smoke,[51,52] it is evident that the influence of family is stronger (prevalence of adult smoking).

More current adolescent smokers (42.5%) *vs* non-smokers (23.2%) had one (or more) parent and/or guardian who smokes,[8] and a conflicting relationship with parents has been shown to influence smoking behaviour in adolescents.[53]

Adult prevalence of tobacco use is 30%.[54] Up to 58.8% of adolescents reported having walked away when their friends started smoking, with more females (63%) walking away than males (54.5%). Of the adolescents surveyed, 15.1% refused to smoke when they were offered by their peers.[3] Individual factors influencing adolescent smoking behaviour include personality, attitudes and a sense of well-being.[51,53] These individual and social factors emphasise the need for interventions in this area to focus on mental health issues in order to effectively change or prevent smoking behaviour in adolescents.

Tobacco legislation: **Grade A**

South Africa remains one of the leading countries in its anti-tobacco legislation with its significant improvements, which include prohibiting the sale of tobacco to children and youth (from 16 years to 18 years), increasing penalties for transgressions and increasing annual taxes.

However, while smoking prevalence rates are noted to have decreased overall since implementation of anti-tobacco legislation, little effect is noted in youth.

Schools are still not tobacco free despite the Department of Education (DOE) ban and the tobacco control amendments. Substance abuse is addressed in the Life Orientation curriculum and encouraged through the Health Promoting Schools initiative. The policy-implementation gap remains a challenge, in addition to the need for a tailored approach (race and gender) and inter-sectoral collaboration. While the government has provided guidelines, implementation remains optional with different approaches at provincial and school levels.

This is the same grade as in the previous report card. The only changes to tobacco legislation have been improvements regarding the sale of tobacco to children and youth (from 16 to 18 years). It was felt that the legislation had improved to such an extent that the grade should be increased.

Smoking interventions: **Grade NE**

Despite the fact that there is good legislation and policy around smoking, very little exists in the way of formal tobacco prevention or cessation interventions for adolescents and children.[51,55] Smoking is addressed in the national curriculum in the life orientation learning area, but even so is not receiving adequate attention in the school setting.

A recommendation for the future would be to focus on interventions around prevention (ensuring that children do not start to smoke), and interventions around smoking cessation. It is recommended that these programmes occur in the school setting, with out-of-school activities held over the weekend and during school holidays. Multiple access points are more likely to meet the needs of the various youth cultures.[51,55]

Due to the limited data around smoking prevention and smoking cessation interventions in youth[51,55] there is insufficient evidence, and the grade is a NE.

Determinants of alcohol use, interventions and policy

Determinants of alcohol intake: **Grade NE**

No published literature could be found around the determinants of alcohol use by learners. As there is a high prevalence of alcohol use by learners, it is necessary to conduct research around the determinants of alcohol use to better understand this health issue that affects South African learners.

Interventions for alcohol intake: **NE**

Only two interventions in South African schools were found within the literature.[56,57] The first showed positive effects after the intervention for a past month's drinking.

The second intervention failed to show any improvement in alcohol-related behaviour. The Liquor Act 59 of 2003 helps to curb learners drinking by the following laws: advertising which targets or attracts minors, selling alcohol to minors, and making false claims about age in order to buy or acquire alcohol.[3]

Although legislation with regard to minors and alcohol is very good, there is not enough research examining determinants of alcohol use or interventions for youth to draw any meaningful conclusions.

South Africa
OVERALL GRADE 2010:
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Summary of changes from 2007 to 2010 and the way forward for Healthy Active Kids South Africa

So where does South Africa stand on health indicators and health behaviours in children and youth in 2010?

1) There are concerning trends for a decline in physical activity, physical education and increased sedentary time from the 2007 report card;
2) There are also trends for increased prevalence of overweight and obesity, with the accompanying concern for increased prevalence of stunting;
3) There is a wealth of new evidence suggesting that health and social scientists recognise the importance of early prevention of obesity, inactivity and smoking in children and youth;
4) There are increasing examples of private-public sector partnerships, particularly for multi-component, school-based interventions, to address the need of teachers for support in implementing physical education and nutrition education;
5) The policy environment is changing from the school-feeding scheme to the curriculum, including the re-inclusion of regular physical education, the promotion of food gardens and the development of school tuck shop guidelines;
6) Global sports events, and programmes in sports for development, may provide opportunities for children from disadvantaged backgrounds to participate in physical activity at a community level;
7) There is a need to prioritise evaluation and monitoring of existing programmes and initiatives;

At this stage, the overall mark for Healthy Active Kids South Africa remains a C-. Although the trends are concerning, there is greater awareness and an increasing number of programmes, partners and stakeholders, at a national, regional and global level, concerned with growing "Healthy Active South Africans" from the ground up.

Healthy Active Kids South Africa recommends multiple strategies and targets for promoting physical activity, healthy eating and tobacco control; creating a supportive environment, and monitoring progress. We need to act now to improve the health of South Africa's children and youth!

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