

### Department of Sports Science and Physical Education Faculty of Education The Chinese University of Hong Kong



# **2018 ACTIVE HEALTHY KIDS**

Hong Kong Report Card on Physical Activity for Children and Youth



### Introduction

The Active Healthy Kids Hong Kong Report Card on Physical Activity for Children and Youth, otherwise referred to as "Hong Kong Report Card", is an evidence-based evaluation of physical activity-related indicators for children and youth in Hong Kong. The Hong Kong Report Card is part of an incorporated non-profit organization Active Healthy Kids Global Alliance (AHKGA, https://www.activehealthykids.org).

The 2018 Hong Kong Report Card is the second report card in Hong Kong. The Department of Sports Science and Physical Education of The Chinese University of Hong Kong has played a fundamental role in the development of the 2018 Report Card.





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## **Report Card Development Team**

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#### **Co-Leaders**

#### WONG Heung Sang Stephen Ph.D.

Chairman and Professor, Department of Sports Science and Physical Education, The Chinese University of Hong Kong

#### HUANG Yajun Wendy Ph.D.

Assistant Professor, Department of Sport and Physical Education, Hong Kong Baptist University

#### **Research Work Group**

#### SIT Hui Ping Cindy Ph.D.

Associate Professor, Department of Sports Science and Physical Education, The Chinese University of Hong Kong

#### WONG Chi Sang Martin M.D.

Professor, Jockey Club School of Public Health and Primary Care, The Chinese University of Hong Kong

#### SUM Kim Wai Raymond Ed.D.

Associate Professor, Department of Sports Science and Physical Education, The Chinese University of Hong Kong

#### WONG Wing Sum Sam M.Sc.

Executive Director, Physical Fitness Association of Hong Kong, China

#### **Project Assistants**

#### YU Jie Jane Ph.D.

Postdoctoral Fellow, Department of Sports Science and Physical Education, The Chinese University of Hong Kong

#### WANG Geng Alan M.Sc.

Research Assistant, Department of Sports Science and Physical Education, The Chinese University of Hong Kong

## What is the 'Report Card'?

The Active Healthy Kids Hong Kong Report Card is an evidence-based synthesis on physical activity behaviors in children and youth, based on the best available evidence across a series of indicators related to individual behaviors, settings and sources of influence, and strategies and investments. The evidence is evaluated and interpreted by an expert consensus panel (research work group, RWG), resulting in the assignment of a letter "grade". The report card aims to consolidate existing evidence, facilitate international comparisons, encourage more evidence-informed physical activity and health policies, improve surveillance of physical activity and most importantly, to promote and facilitate opportunities for physical activity among children and youth in Hong Kong.

The Hong Kong Report Card is part of a global initiative led by the non-profit organization AHKGA to promote physical activity in children and youth. The 2018 Hong Kong Report Card adds three new indicators, i.e., one related to behavior (Sleep) and two related to individual characteristics (Physical Fitness and Obesity) in addition to the 9 core indicators in the 2016 Report Card. The results of the second Hong Kong Report Card were published together with 48 other countries and regions in the Global Matrix 3.0 in 2018. It is anticipated that the Hong Kong Report Card will serve as a call to action, a key policy driver and a standardized system for international comparison in the area of physical activity in children and youth.



### Why Physical Activity is Important for Children and Youth?

Compelling evidence has shown that higher levels of physical activity are related to favorable health outcomes in children and youth, e.g., lower risk of obesity, better cardiometabolic health, and higher self-esteem. Although the evidence base for sedentary behavior is incomplete, some reviews have consistently demonstrated negative relationships between TV viewing or screen time and many aspects of health (e.g., behavioral conduct and fitness levels).

In order to prevent and control non-communicable diseases (NCDs), the Government of the Hong Kong Special Administrative Region (HKSAR) recently launched a strategic framework Towards 2025: Strategy and Action Plan to Prevent and Control NCDs in Hong Kong. Nine local targets have been identified, one of which is a 10% reduction in physical inactivity among local youth and adults by 2025.

### **Guidelines on Physical Activity and Sedentary Behaviors**

The Department of Health of the HKSAR recommends physical activity<sup>6</sup> and sedentary behavior<sup>7</sup> guidelines for school-aged children and youth (6-17 years).

# Physical activity guidelines:<sup>6</sup>

- Children and youth should accumulate at least 60 minutes of moderate-to-vigorous physical activity (MVPA) every day.
- Performing more than 60 minutes of physical activity daily provides additional health benefits.
- Most of the daily physical activity should be aerobic. The activity plan should incorporate vigorous-intensity activity (including muscle-strengthening and bonestrengthening activity) at least 3 times per week.

# Sedentary behavior recommendations:<sup>7</sup>

- 6-12 years old: should limit recreational screen time to no more than 2 hours per day.
- 12-18 years old: avoid prolonged screen time.

### **Methodology and Data Sources**

The systematic development process provided by AHKGA was used.<sup>8</sup> The 2018 Hong Kong Report Card has 9 core indicators that were used in the 2016 Hong Kong Report Card (Overall Physical Activity, Organized Sport Participation, Active Play, Active Transportation, Sedentary Behaviors, Family, School, Community and Environment, and Government) and 3 new indicators (Physical Fitness, Sleep, and Obesity) (Details are provided in 'Indicators').

The search for data sources included published journal articles, government and non-government reports (including completed reports of funded grants), manual searches, and personal contacts. The inclusion criteria were: (1) children and youth aged 6 to 17 years in Hong Kong; (2) relevant to at least one of the indicators; (3) a representative sample; (4) the data was collected and released between March 2008 and February 2018.

### **Grading Scheme**

The letter grades for the 12 indicators were assigned based on the **proportion** of children and youth meeting the predefined benchmarks (details are shown in Table "Summary of the Indicators"):

A+ 94% to 100% A 87% to 93% A- 80% to 86%	We are succeeding with a large majority of children and youth
B+ 74% to 79%  B 67% to 73%  B- 60% to 66%	We are succeeding with well over half of children and youth
C+ 54% to 59%  C 47% to 53%  C- 40% to 46%	We are succeeding with about half of children and youth
D+ 34% to 39%  D 27% to 33%  D- 20% to 26%	We are succeeding with less than half, but some, children and youth
F   < 20%	We are succeeding with very few children and youth Incomplete data

The RWG met in March 2018 to review the evidence and assign the initial grades. Comments from the stakeholders were then collected through a face-to-face consultation meeting or via an online consultation

survey. Agreement on the initial grades was eventually obtained from > 80% of the stakeholder members. The grades were then finalized following auditing by the AHKGA.

### Major data sources used in the 2018 Hong Kong Report Card:

#### **Physical Fitness Test for the Community:**

This was a territory-wide community fitness survey conducted from April 2011 to January 2012. This study was commissioned by the Community Sports Committee of Hong Kong and organized by the Leisure and Cultural Services Department (LCSD). A series of standardized physical fitness tests and a questionnaire survey according to National Physical Fitness Test Handbook were conducted. Through stratified random sampling, 8,178 Hong Kong citizens aged 3-69 years were recruited. Relevant data for children (7-12 years) and adolescents (13-19 years) were used for this Report Card.

# International Physical Activity and the Environment Network (IPEN) Adolescent Study-Hong Kong:

This epidemiological study was part of the IPEN project (http://www.ipenproject.org) that aimed to investigate the associations of environmental, psychosocial and behavioral variables with body mass index (BMI) in adolescents in Hong Kong. Using a two-stage stratified sampling strategy, 1,363 adolescents (11-18 years) and one of their parents/ primary caregivers residing in different types of neighborhood were recruited. Physical activity and sedentary behavior were measured using both subjective and objective methods. Physical activity-related psychosocial and environmental correlates were surveyed using validated scales.<sup>10</sup>

# Understanding Children's Activity and Nutrition (UCAN) Study:

The UCAN study was a 3-year longitudinal investigation on the determinants of physical activity and sedentary behavior in Chinese children in Hong Kong. A total of 1,666 children from grades 1-3 were initially recruited in 2009 from 24 primary schools of varying social economic status. 11-13 Physical activity and sedentary behavior were assessed by a validated questionnaire 14 and an ActiGraph accelerometer (for subsample only).

# Hong Kong Student Obesity Surveillance (HKSOS):

The HKSOS was a population-based surveillance aimed at monitoring trends in childhood obesity and its associated risk factors. The baseline data collection was conducted in 2006-2007 in 42 randomly selected secondary schools from each of the 18 administrative districts in Hong Kong. Data collected in the second wave (2007-2008) including 22,678 students in forms 1 to 7 from 28 participating schools were used.<sup>15</sup>

# Youth Survey on Usage of Internet and Social Network Websites:

This was a survey conducted by Public Opinion Programme at the University of Hong Kong in 2010.<sup>16</sup> 825 Cantonese speaking youth aged 12-23 years were interviewed through telephone.

## Healthier Lifestyle for Primary School Children:

This review was conducted by the Audit Commission of the HKSAR to examine various school-based programmes pertaining to a healthier lifestyle for primary school children.<sup>17</sup> The audit survey was conducted in 426 schools between December 2008 and January 2009 and covered various physical activity-related aspects including school-related physical activity policy and strategies.

#### Thematic Household Survey Report No. 47:

This survey was conducted during March to April 2010 by the Census and Statistics Department of the HKSAR. 18 Its aim was to collect information from the public on the provision of sports facilities and levels of interest and participation in sports among Hong Kong residents aged 12 years and above. In particular, the survey focused on the provision of sports facilities within 15-20 minutes walking distance from the home of the respondents. A total of 8,028 households were successfully surveyed but no sample size for youth aged 12-18 years was reported.

# "The Children of 1997" Birth Cohort and Student Health Services (SHS):

This was a large, prospective, population-representative study initiated in 1997 by the University of Hong Kong and the Department of Health of the HKSAR that aimed to explore the impact of secondhand smoking on infant health and health service utilization. 8,327 mother-infant pairs were initially recruited, corresponding to 88% of all births in Hong Kong in April and May 1997. The SHS of the Department of Health provides annual health assessments for all primary and secondary school students in Hong Kong. Data generated from these two projects have been used for estimating the prevalence of childhood obesity. 19,20

# Survey on 'Physical Fitness Status of Hong Kong School Pupils':

The school physical fitness survey was conducted by the Physical Fitness Association of Hong Kong, China and commissioned by the Education Bureau (EDB). It aims to develop the norm tables for the different physical fitness parameters of primary and secondary school students in Hong Kong. In the latest survey (Secondary Schools, 2014/15; Primary Schools, 2015/16), approximately 13,000 students were recruited from 38 secondary schools and 24 primary schools using a stratified random sampling method.<sup>21</sup>

## **Indicators**

In the 2018 Hong Kong Report Card, a total of 12 indicators were evaluated including daily behaviors (Overall Physical Activity, Organized Sport Participation, Active Play, Active Transportation, Sedentary Behaviors, Sleep), individual characteristics (Physical Fitness and Obesity), settings and sources of influence (Family, School, Community and Environment), and strategies and investment (Government).

ategies and investment (Government).			
1.	ڒؙڋ۪ٵ	Overall Physical Activity	2016 Grade: D
2.		Organized Sport Participation	2016 Grade: C-
3.		Active Play	INC 2016 Grade: INC
4.	<b>Note</b>	Active Transportation	<b>B+</b> 2016 Grade: B
5.		Sedentary Behaviors	2016 Grade: C
6.	B	Physical Fitness	New Indicator
7.	22 <sup>2</sup>	Sleep	New Indicator
8.		Family	2016 Grade: D
9.		<b>School</b> - Physical Education, Physical Activity-Related Policy, and Programs	2016 Grade: C
10.	İ	Community and Environment	2016 Grade: B
11.		Government	2016 Grade: INC
12.		Obesity	New Indicator

#### 1. Overall Physical Activity





#### Benchmark:

Percentage of children and youth who meet physical activity guidelines of 60 minutes of MVPA per day on average.

#### What's New in the 2018 Report Card

The grade change from 2016 to 2018 reflects a new grading approach for Global Matrix 3.0, that is, more clear-cut benchmarks for plus and minus grades. No obvious change in the proportion of children and youth meeting the guidelines is found.

One new data source was added after the development of the first Hong Kong Report Card in 2016.<sup>22</sup> However, the outcome measures for physical activity in this study did not align with the benchmark, and therefore it was not used for grading.

#### **Key findings**



- Half of 6- to 8-year-olds met the physical activity recommendation. However, the percentage dropped to 30% and 22% at the 1-year and 2-year follow-ups (accelerometer data). 13
- Nearly 90% of 11- to 18-year-olds met the recommendation (accelerometer data). 10
- < 10% of 7- to 19-year-olds self-reported participation in at least 60 minutes of MVPA a dav.<sup>9</sup>

#### Major gaps and recommendations

- Territory-based data collection of physical activity is needed via both objective and subjective measures.
- Further research should explore the optimal combination of frequency and duration of physical activity. Current guidelines recommend MVPA on a daily basis, however, most of the studies reported how many children accumulated 60 minutes of MVPA daily on average over a period of several days.

#### How to improve the grade?

The "best-buy" intervention strategies to decrease physical inactivity is to "Implement community wide public education and awareness campaign", which has been adopted locally. In addition, awareness of the guidelines per se may not be sufficient enough for behavioral changes. The guidelines should be equipped with a number of strategies to help children, parents, or schools to incorporate physical activity into daily routine.

#### 2. Organized Sport Participation





#### Benchmark:

Percentage of children and youth who participate in organized sport at least once per week.

#### What's New in the 2018 Report Card

The grade change from 2016 to 2018 reflects a new grading approach for Global Matrix 3.0, that is, gender disparities are no longer considered when assigning a plus or minus grade. No new data source was found after 2016.

#### **Key findings**



• Half of secondary school students self-reported participation in leisure time sports (of any type) for 30 minutes or more at least once a week in the 2007-2008 academic year.<sup>23</sup> In fact, the data collection period of this study only partly fulfilled the searching timeframe criterion (i.e., after March 2008).

#### Major gaps and recommendations

- More surveillance data is needed for this indicator, in particular for primary school children. Stakeholders from the school sectors noted that local schools had made good efforts in providing opportunities for organized sport. However, organized sport should be documented and assessed appropriately and continuously in order to be considered in the future report cards.
- More robust data collection is needed, e.g., the time that children and youth engage in organized sport, collected by objective measures or observations in addition to frequency.
- More research evidence on the relationship between sport/organized exercise and health is warranted in order to develop a specific recommendation.

- Coaches, teachers, and parents should encourage children and youth to participate in organized sport and exercise outside of physical education (PE) classes.
- Relevant stakeholders should ensure that all children and youth have equitable access to sport opportunities. Strategies should be strengthened to minimise dropouts from sport.

#### 3. Active Play





#### Benchmark:

Percentage of children and youth who participate in non-organized sport (active play) at least once per week.

#### Major gaps and recommendations

- An incomplete grade was assigned again to this indicator because there is currently no adequate and representative data relevant to active play among Hong Kong children and youth. Research on active play in Hong Kong is scarce.
- A recent survey study conducted among 3,177 children and youth aged 6 to 24 years provided some preliminary information on active play.<sup>24</sup> The average time spent in play at playgrounds and parks was 4.1 hours per week for 6- to 12-year-olds and 1.7 hours per week for 13- to 18-year-olds. Unfortunately, the representativeness of the sample and details of the questions asked pertaining to play was not reported so that this survey cannot be used for grading.
- There is a clear need for a better understanding of the frequency, intensity, duration, and context of active play in Hong Kong children and youth. Recently, researchers proposed a working description of active play with key features including being fun, unstructured, and freely chosen.<sup>25</sup> A suitable tool to adequately capture the different aspects of active play is needed.
- Current literature focuses on active play outdoors. The opportunities for active play indoors may also warrant attention given the high population density, limited space, and very hot weather in Hong Kong.
- This indicator may be given an incomplete grade in future report cards until more robust data becomes available

#### 4. Active Transportation





#### Benchmark:

Percentage of children and youth who use active transportation to and from school at least once per week.

#### What's New in the 2018 Report Card

The primary data source for grading this indicator is the same as that used for the 2016 Report Card. A grade of B+ is assigned by taking into consideration a new reference, <sup>11</sup> although this study reported children's active travel to school in a more regular pattern (at least five times per week).

#### **Key findings**



- For adolescents, 80% of boys and 77% of girls aged 11-18 years reported that they actively traveled to and from school at least once per week.<sup>10</sup>
- 52% of primary school children with a mean age of 8.7 years used active travel to and from school at least 5 times per week.<sup>11</sup>

#### Major gaps and recommendations

- Active transportation to destinations other than school should be examined.
- Greater emphasis should be placed on examining the relationship between active transportation and overall physical activity and health-related outcomes.
- Although it is not required in the benchmark, no studies have considered the duration of active travel trips. This issue may be particularly relevant to Hong Kong because many of the districts are highly self-contained and school facilities are usually located within the neighborhood.

#### How to improve the grade?

• Hong Kong is an ultra-dense metropolis. Most districts are highly self-contained and children usually attend schools close to their homes.<sup>26</sup> Encouraging active travel to destinations other than school may provide additional health benefits for children and youth. For those districts with a bicycle track, possibilities for cycling to and from school and other destinations need to be explored.

#### 5. Sedentary Behaviors





#### Benchmark:

Percentage of children and youth who meet the screen time guideline (<2 hours of recreational screen time per day).

#### What's New in the 2018 Report Card

The grade change from 2016 to 2018 reflects an increased use of screen devices for leisure purposes among Hong Kong children and youth in recent years. Three new data sources became available after 2016. 12, 27, 28

#### **Key findings**



- 52% of primary school children with a mean age of 7.6 years spent < 2 hours on screen time. 12
- 51% of 12- to 23-year-olds spent < 2 hours per day using the Internet. 16
- 35.5% of 10- to 19-year-olds spent < 2 hours per day on a smart device activity (e.g., messaging, browsing information, gaming, watching TV/movies, posting information on smartphone/tablet/computer).<sup>28</sup>

#### Major gaps and recommendations

- Current evidence mainly focused on traditional screen time, i.e., watching TV, using the Internet, and playing electronic games. Surveillance data on contemporary media use (tablets and smartphones) is of urgent need among school-aged children and youth.
- A territory-wide survey is available for information on the use of technology (including use of PC, Internet service, smartphone, etc.).<sup>27</sup> However, surveillance results specifically designed to target the predefined benchmarks will be helpful. For example, a government census survey reported the proportion of children who spent 3 or more hours per day,<sup>27</sup> instead of 2 hours per day, using the Internet or other forms of technology.

#### How to improve the grade?

• Although guidelines on sedentary behaviors are available in Hong Kong, an awareness of these guidelines among relevant stakeholders is limited. Raising awareness of health outcomes associated with excessive sedentary behaviors, especially screenbased sedentary behaviors among parents, health educators and professionals, and youth is essential. Furthermore, both the home and school environment needs to be supportive in limiting the amount of screen time.

#### 6. Physical Fitness





#### Benchmark:

Average percentile achieved according to international norms for relative peak oxygen uptake (VO<sub>2peak</sub> ml/kg/min) for age and sex of 9 -17 year old children and youth as determined by a 20m-shuttle-run test.<sup>29</sup>

#### What's New in the 2018 Report Card

This is a new indicator for the 2018 Report Card. One data source from a representative sample of primary and secondary school children was used for grading.

#### **Key findings**



Average percentile achieved based on VO<sub>2peak</sub> for sex and age for 9- to 17-year-olds was 25.4% for boys and 36.2% for girls, respectively. Overall, it was 30.8%.<sup>21</sup>

#### Major gaps and recommendations

- The grade of D demonstrates the alarmingly low cardiorespiratory fitness levels of children and youth in Hong Kong despite the fact that good surveillance of fitness is undertaken in school settings.
- The grade for physical fitness is assigned based on cardiorespiratory fitness benchmarks only since there are currently no consensus on cut-off points for healthy muscular endurance and other healthrelated physical fitness components.

- Physical activity programs aiming at increasing cardiorespiratory fitness should be provided to children and adolescents both inside and outside school settings.
- The current global physical activity guidelines recommend "incorporating vigorous-intensity activity, including musclestrengthening and bone-strengthening activity, at least 3 times per week". This should be encouraged among relevant stakeholders (parents, schools, sport clubs, etc.).
- A closer monitoring of physical fitness should be incorporated into existing surveillance systems.

#### 7. Sleep





#### Benchmark:

Percentage of children and youth who meet National Sleep Foundation/Canadian 24-hour Movement Guidelines for Children and Youth (for sleep: uninterrupted 9-11 hours per night for children aged 6–13 years, 8-10 hours per night for those aged 14-17 years).

#### What's New in the 2018 Report Card

This is a new indicator for the 2018 Report Card. Four data sources in line with the benchmark were used for grading.

#### **Key findings**



- 32% of 7- to 12-year-olds met the recommended amount of sleep duration per night, i.e.,  $\geq$  9 hours. 9
- 93.2% of children aged 9 years slept of ≥ 7 hours per night.<sup>30</sup>
- 45% of children with a mean age of 7.6 years met the sleep recommendation (≥ 9 hours per night). 12
- 27.4% (school day) and 86.4% (holiday) of adolescents had > 8 hours of sleep per night. 15

#### Major gaps and recommendations

- Objectively measured sleep parameters are needed (e.g., accelerometry).
- None of the data sources has considered napping even though it relates to sleep and health outcomes in children and youth.
- Weekend catch-up sleep has been found to be prevalent among school-aged children and adolescents in Hong Kong.
   The importance of consistent sleep timing warrants further research.

- It is necessary to promote good sleep practices for children and youth, including consistent bedtimes/wake-up times and bedtime routines, limited access to electronic devices before bedtime, etc.
- The policy makers in the education sector can explore the possibility of delaying school start times, in particular for adolescents who suffer most from misalignment between circadian rhythms and social schedule.

#### 8. Family





#### Benchmark:

Percentage of parents who are physically active with their children.

Percentage of family members who facilitate physical activity and sport opportunities for their children.

Percentage of parents who meet the physical activity guidelines for adults.

#### What's New in the 2018 Report Card

The grade change from 2016 to 2018 reflects that parental support of physical activity for children and adolescents is getting worse after taking a new data source<sup>31</sup> into consideration.

#### **Key findings**



- 37% of 7- to 12-year-olds and 23% of 13- to 19-year-olds reported that they participated in physical activity together with their family at least once per week.<sup>9</sup>
- 17.3% of fathers and 15.1% of mothers of adolescents aged 13-19 years reported exercise habits of  $\geq$  3 times per week.<sup>31</sup>

#### Major gaps and recommendations

There is a lack of data on peer influence of physical activity for all age groups. A survey study conducted among 303 students in grades 4-6 in Hong Kong showed that girls tend to be more physically active if they perceived more support from their peers.<sup>32</sup> Future research on the influence of peer support of physical activity from a representative sample is warranted, especially among adolescents.

- Facilitators and barriers towards parenting practices encouraging children's physical activity should be investigated. Such knowledge will better inform subsequent intervention efforts.
- Specific strategies catering for the needs of working parents in Hong Kong are particularly important for promoting a healthy and active lifestyle.

#### **9. School** – Physical Education, Physical Activity-Related Policy, and Programs





#### Benchmark:

Percentage of schools where the majority of students are offered at least 70 minutes of PE per week.

Percentage of schools that have active school policies.

Percentage of schools that offer physical activity opportunities to the majority of their students in addition to PE.

Percentage of school with students who have regular access to facilities and equipment that support physical activity.

#### What's New in the 2018 Report Card

No compelling evidence informs a change in the grade, even though a new data source was added for the 2018 Report Card.<sup>33</sup>

#### **Key findings**



- 77% of primary schools had PE classes for 70-120 minutes per week. 17
- 28% of schools had a documented physical activity-related policy.
- The number of physical activity facilities at school ranges from 0 to 16 and the number of school-based physical activity programs per academic year ranges from 0 to 20.<sup>33</sup>

#### Major gaps and recommendations

- Sport-related extra-curricular activities were popular at schools; however, no data is available to determine participation in these activities and its association with health outcomes.
- Although most of the schools offer an amount of PE lessons as required by the EDB, the quality of PE provided should be monitored.

- Schools should develop comprehensive policies that aim to maximize engagement in sport and exercise programs of children and youth throughout the entire school day.
- It is imperative to increase the time children and youth spend in MVPA during PE classes.
- Children and youth should be provided with opportunities to be physically active during recess and lunch breaks.
- PE classes and sport programs should be continually evaluated to ensure that quality physical activity is provided for all students.

#### 10. Community and Environment





#### Benchmark:

Percentage of children or parents who report living in a safe neighborhood where they can be physically active.

Percentage of children or parents who have used sport facilities in their community.

Percentage of children or parents who are satisfied with parks, playgrounds, and sport facilities in their community.

Percentage of children or parents who report having sport facilities, parks, and playgrounds available to them in their community.

#### What's New in the 2018 Report Card

There was no evidence of an obvious change in the grade, although a new data source was added for the 2018 Report Card.<sup>34</sup>

#### **Key findings**



- 60%-79% of parents of youth aged 11-18 years felt that their neighborhood was safe (low traffic and crime rate).
- The majority of people aged ≥ 12 years were satisfied with the sport facilities provided by the government (Location: 95%, price: 70%, cleanliness: 91%, booking arrangement: 66%, staff services: 79%, and level of facilities: 86%).
- Parents gave mean scores of 3.66 (boys) and 3.55 (girls) on the availability of sports facilities (range from 0 to 5).<sup>34</sup>

#### Major gaps and recommendations

- Current evidence relied heavily on selfreported perception of the environment. Data is currently not available on objectively measured features of the built environment pertaining to physical activity for Hong Kong children and youth.
- Policy evaluations are needed to better understand how research on the built environment could be translated into urban planning and policy making.

- In general, infrastructure in Hong Kong is in place. However, efforts are needed to ensure that infrastructure and sport facilities could translate into more physical activity opportunities for children and youth.
- Children and youth should be given more independence in terms of mobility so that they could make better use of the facilities in their community and be more physically active.





#### Benchmark:

Evidence of leadership and commitment in providing physical activity opportunities for all children and youth.

Allocated funds and resources for the implementation of physical activity promotion strategies and initiatives for all children and youth.

#### What's New in the 2018 Report Card

This is the first time that this indicator has been assigned a grade because of the emerging evidence of the government's commitment to providing physical activity opportunities and the investment in physical activity promotion programs in recent years.

#### **Key findings**



- According to PE Key Learning Area Curriculum Guide (Primary 1-Secondary 6) of the EDB of the HKSAR:
  - At the primary level and junior secondary level, schools should allocate 5%-8% of the total lesson time to General PE;
  - At the senior secondary level, schools should allocate at least 5% of the total lesson time in General PE through Other Learning Experiences. In addition, PE is an elective subject of the senior secondary curriculum and accounts for 10% of the total lesson time over a course of three years.
- Strategies for Sports Development were emphasized in the Hong Kong Chief Executive's 2017 and 2018 Policy Address:
  - The opening up of School Facilities for Promotion of Sports Development Scheme was mentioned to encourage public sector schools to open up school facilities to sports associations by providing additional subsidies to the schools. This scheme will play an important role in promoting a sporting culture in schools (https://www.policyaddress.gov.hk/2017/eng/policy\_ch06.html).
  - The Government "continues to take forward the Five-Year Plan for Sports and Recreational Facilities" in order to promote sports for all (https://www.policyaddress.gov.hk/2018/eng/policy\_ch07.html).
- The LCSD of the HKSAR is committed to providing high quality leisure facilities and services to meet the needs of the Hong Kong community. The 2018-19 budget of the LCSD is HK\$9.09 billion. Among the whole budget, "Recreation and Sports" accounts for HK\$4.18 billion, which has increased by 2.5% based on the 2017-18 original budget. According to the plan, the number of participants in school sports programs and national sports associations (NSAs)/sports organizations subvented programs are 634,480 and 749,250, respectively.

#### Major gaps and recommendations

There was emerging evidence showing the government's commitment in providing physical activity opportunities and the resources for the implementation of physical activity promotion programs for children and youth. However, continuous monitoring and evaluation of the effectiveness of the implementation is needed in the future.

- The government needs to implement a territory-wide physical activity plan to promote broad-based physical activity for children and youth. It requires cooperated efforts from various sectors.
- It is important to support and sustain physical activity research efforts, in particular, the evaluation of physical activity-related policy and programme implementation.

#### 12. Obesity





#### Benchmark:

This indicator is a health outcome instead of a health behavior. It is not possible to follow the same grading scheme as the other indicators. Grading is based on obesity reported from other countries and the consensus from RWG members and stakeholders.

#### What's New in the 2018 Report Card

This is a new indicator included in the 2018 Report Card. Five data sources reporting prevalence of obesity using the International Obesity Task Force (IOTF) criteria were used for grading.

#### **Key findings**



- 22.4% of boys and 14% of girls aged 6-18 years were overweight and obese in 2014.
- 26.9% of children (7-12 years) and 14% of adolescents (13-19 years) were overweight and obese in 2011/2012.<sup>9</sup>
- Overweight and obesity prevalence were 25.8%, 24.6%, and 26.2% for a cohort of children in 2009/2010, 2010/2011, and 2011/2012, respectively.<sup>13</sup>
- % overweight (including obesity) at 11 years were 30.4% for boys and 17.2% for girls in 2009. <sup>20</sup>
- Obesity rate of children and adolescents aged 6-18 years was 5% in 2013/2014.<sup>33</sup>

#### Major gaps and recommendations

The grade of D- was assigned based on the similar levels of obesity reported from those countries that have provided grades for Obesity in the Global Matrix 2.0, such as Belgium<sup>35</sup> and Sweden<sup>36</sup> and the consensus from RWG members and stakeholders. We acknowledge that local health authority has applied different criteria for defining obesity, i.e., body weight > 120% median weight for height<sup>37</sup>. However, the IOTF criteria was adopted to facilitate international comparisons.

#### How to improve the grade?

"Halting the rise in diabetes and obesity by 2025" has been identified as one of the targets for tackling NCDs by the HKSAR.<sup>5</sup> Attaining this target is closely related to goals such as reducing physical inactivity and promoting a healthy diet for children and youth in Hong Kong.

# **Abbreviations**

AHKGA	Active Healthy Kids Global Alliance	
BMI	Body Mass Index	
EDB	Education Bureau	
HKSAR	The Government of the Hong Kong Special Administrative Region	
HKSOS	Hong Kong Student Obesity Surveillance	
INC	Incomplete	
IOTF	International Obesity Task Force	
IPEN	International Physical Activity and Environment Network	
LCSD	Leisure and Cultural Services Department	
MVPA	Moderate-to-Vigorous Physical Activity	
NCDs	Non-Communicable Diseases	
NSAs	National Sports Associations	
PE	Physical Education	
RWG	Research Work Group	
SHS	Student Health Services	
UCAN	Understanding Children's Activity and Nutrition	



# Summary of the Indicators

#	Indicator	Benchmark	2018 Grade	2016 Grade
1	Overall Physical Activity	% of children and youth who meet physical activity guidelines of 60 minutes of MVPA per day on average.	C-	D
2	Organized Sport Participation	% of children and youth who participate in organized sport for at least once per week.	C	C-
3	Active Play	% of children and youth who participate in non-organized sport (active play) for at least once per week.	INC	INC
4	Active Transportation	<ul><li>% of children and youth who use active transportation to school at least once per week.</li></ul>	B+	В
5	Sedentary Behaviors	<ul> <li>% of children and youth who meet screen time guideline,</li> <li>i.e., &lt;2 hours of recreational screen time per day.</li> </ul>	C-	C
6	Physical Fitness*	<ul> <li>% of children and youth who meet the international criterion-referenced standards for cardiorespiratory fitness.</li> </ul>	D	
7	Sleep*	• % of children and youth who meet the sleep recommendations (9-11 hours per night for 6- to 13-year-old children; 8-10 hours per night for 14- to 17-year-old adolescents).	C-	-

#	Indicator	Benchmark	2018 Grade	2016 Grade
8	Family	<ul> <li>% of parents who are physically active with their kids.</li> <li>% of family members who facilitate physical activity and sport opportunities for their children.</li> <li>% of parents who meet the physical activity guidelines for adults.</li> </ul>	D-	D
9	School – PE, Physical Activity- Related Policy, and Programs	<ul> <li>% of schools where the majority of students are offered at least 70 minutes of PE per week.</li> <li>% of schools that have active school policies.</li> <li>% of schools that offer physical activity opportunities to the majority of their students in addition to PE.</li> <li>% of schools with students who have regular access to facilities and equipment that support physical activity.</li> </ul>	C	C
10	Community and Environment	<ul> <li>% of children or parents who report living in a safe neighborhood where they can be physically active.</li> <li>% of children and youth who have used sport facilities in their community.</li> <li>% of children or parents who are satisfied with parks, playgrounds and sport facilities in their community.</li> <li>% of children or parents who report having sport facilities, parks and playgrounds available to them in their community.</li> </ul>	В	В
11	Government	<ul> <li>Evidence of leadership and commitment in providing physical activity opportunities for all children and youth.</li> <li>Allocated funds and resources for the implementation of physical activity promotion strategies and initiatives for all children and youth.</li> </ul>	C	INC
12	Obesity*	<ul> <li>This indicator is a health outcome instead of a health behavior. It is impossible to follow the same grading scheme as the other indicators.</li> <li>Grading is based on obesity reported from the other countries and the consensus from RWG members and stakeholders.</li> </ul>	D-	_

<sup>\*</sup> New indicators in the 2018 Report Card

### **List of Stakeholders**

(in Alphabetical Order)

Mr. CHAN Chun Kit Zimon Ko Lui Secondary School
Ms. CHAN Joyce Chinese YMCA of Hong Kong

Mr. CHAN Kwok Hung Terry SJS Fitness Centre
Principal CHAN Yuen Kee Karen Salesian School

Dr. CHEUNG Pui Yee Peggy Department of Health and Physical Education,

The Education University of Hong Kong

Miss. CHEUNG Sin Ting Juanita Department of Sports Science and Physical Education,

The Chinese University of Hong Kong (CUHK)

Ms. CHEUNG Tsui Fun Lorena Hong Kong Association for the Study of Obesity

Dr. CHOW Chun Bong Playright Children's Play Association

Dr. CHOW Chun Chung Francis Hong Kong Association for the Study of Obesity
Prof. CHUNG Pak Kwong Department of Sport and Physical Education,

Hong Kong Baptist University

Principal FUNG Man Yi Wendy Ka Ling School of The Precious Blood

Prof. HA Sau Ching Amy Department of Sports Science and Physical Education, CUHK

Dr. HO Frederick Department of Paediatrics & Adolescent Medicine,

The University of Hong Kong / Hong Kong Childhealth Foundation

Dr. IP Patrick Department of Paediatrics & Adolescent Medicine,

The University of Hong Kong / Hong Kong Childhealth Foundation

Mr. KAM Wai Keung Kevin Department of Health and Physical Education,

The Education University of Hong Kong

Mr. KAN Wai Fu Education Bureau (Retired)
Ms. KONG Judy InspiringHK Sports Foundation

Principal KWONG Wing Sun Vincent Christian Alliance S W Chan Memorial College

Prof. LAU Chak Sing Hong Kong Academy of Medicine

Prof. LAU Wing Chung Patrick Department of Sport and Physical Education,

Hong Kong Baptist University

Mr. LEE Chi Wo Daniel Department of Sports Science and Physical Education, CUHK

Dr. LEUNG Fung Lin Elean Physical Education Unit, CUHK

Dr. LOUIE Hung Tak Lobo Hong Kong Association of Sports Medicine and Sports Science

Principal NG Ching Kong Stewards Pooi Kei Primary School
Prof. PANG Marco Hong Kong Physiotherapy Association

Dr. SIU Ming Fai Parco School of Public Health, The University of Hong Kong

Mr. SO David Hong Kong Athletes Career & Education Programme,

Sports Federation & Olympic Committee of Hong Kong, China

Dr. SUN Fenghua Bob Department of Health and Physical Education,

The Education University of Hong Kong

Dr. TONG Kai Sing

Hong Kong Medical Association

Prof. WONG Kam Yuet Frances

The Hong Kong Academy of Nursing

Ms. WONG Kathy

Playright Children's Play Association

Principal WONG Shun Ki Aaron Christian Alliance S C Chan Memorial College

Dr. YAU Forrest Centre for Nutritional Studies, CUHK

Dr. YEUNG Chiu Fat Henry Hong Kong Doctors Union

Mr. YIM Chun Hung The Hong Kong Federation of Youth Groups

Mr. YIU Yik Ming Edmond Hong Kong Playground Association

Ms. YUNG Janet YMCA of Hong Kong

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