

THE 2016 THAILAND REPORT CARD ON  
PHYSICAL ACTIVITY FOR CHILDREN & YOUTH

# Play more Learn more



THE UNIVERSITY OF  
**WESTERN  
AUSTRALIA**



# “Thailand 2016 Report Card on Physical Activity for Children and Youth” (2016 TRC)



## The 2016 TRC

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The summary of the 2016 TRC is available online at [www.parc.padatabase.net](http://www.parc.padatabase.net)  
For more information about the research project, please contact Physical Activity  
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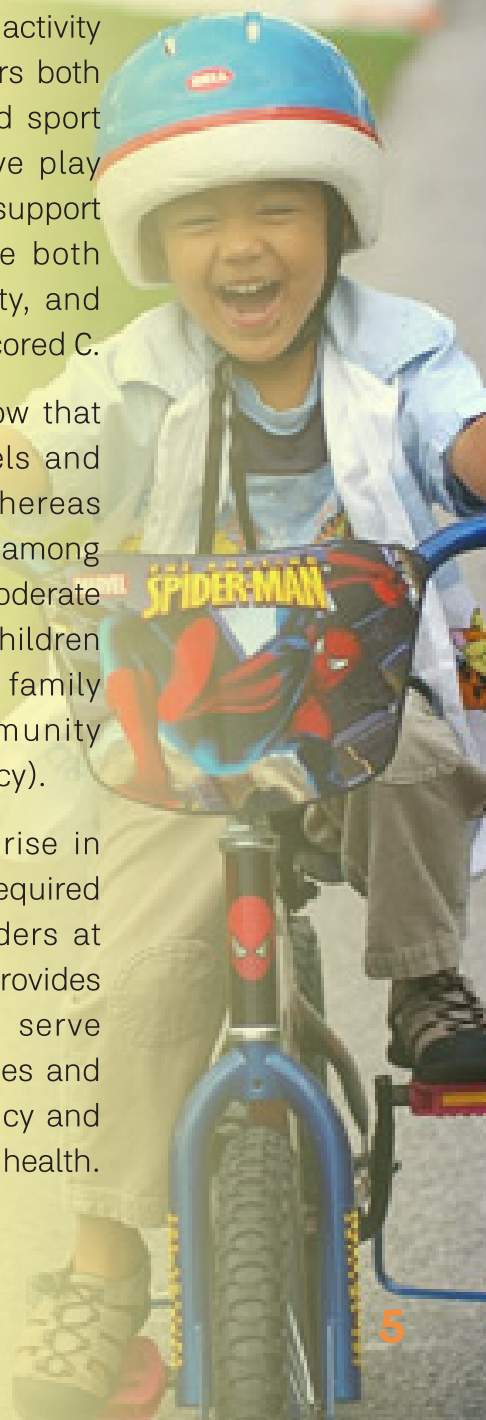


## 2016 TRC in Brief

- The 2016 TRC is the first report card in a series that assesses current physical activity levels in Thai children aged 6-17 years and factors influencing physical activity behaviors.
- The report card uses 9 core indicators and a grading framework identified by the Global Matrix Report Card 2.0 (RC) to allow for international comparison. The grade assignment was undertaken by the National Report Card Committee comprising experts from key stakeholders.
- The 2016 TRC was developed based on a primary data source called the “Thailand Physical Activity Children Survey (TPACS)”. TPACS collected new comprehensive data using validated and reliable survey instruments which were purposively tailored to the core indicators of the Global Matrix. This is unique as other countries used secondary data.
- The survey was undertaken in a nationally representative sample (n=16,788) recruited from 336 schools in 27 provinces across 9 regions of Thailand including Bangkok, ensuring that the data and the final grading reflected the entire target population.



- Grades of the 9 indicators ranged from F to B. Overall physical activity levels and sedentary behaviors both received grade D-. Organized sport participation scored C. Active play scored F. Active transport and support from family and peers were both graded B. School, community, and government indicators were scored C.
- The results of 2016 TRC show that overall physical activity levels and active play are very low, whereas sedentary behaviors are high among Thai children. Thailand has moderate support and influences for children to be physically active (i.e. family support, school and community settings, and government policy).
- Thailand's response to the rise in physical inactivity in children required efforts from many stakeholders at different levels. The 2016 TRC provides recommendations and can serve as a baseline for future studies and an advocacy tool to drive policy and practices to improve children's health.



## What is 2016 TRC ?

Recently, non-communicable diseases (NCDs) have received a top priority in the global public health agenda and physical activity is one of the global targets which can contribute to a reduction in magnitude of the NCDs<sup>1</sup>. Therefore, it is imperative for countries to study and monitor trends of physical activity behaviors and related influential factors, particularly in young people. The Global Matrix 2.0 Report Card (RC) project initiated by the “Active Healthy Kids Global Alliance (AHKGA)” provides a good opportunity for countries to assess their current situation on physical activity in children and youth. The RC potentially stimulates the attention from all concerned parties ranging from scholars to policy makers. The AHKGA established in 2014 has 38 member countries and it is a network of researchers, health professionals and stakeholders who are working together to advance physical activity in children and youth from around the world.





In 2014 Thailand decided to join the AHKGA as a member country. The RC project provided Thailand with a great opportunity to assess physical activity behaviors in Thai children and factors influencing their behaviors. In Thailand, physical inactivity and overweight and obesity are recognized as risk factors for NCDs. In 2009, it was estimated that 0.13 million of the 1.8-million-overweight-and-obese children were at risk of type II diabetes. Obesity prevalence in Thai children has increased two fold in 15 years (from 5.8% in 1995 to 9.7% in 2009)<sup>2</sup>. However, little is known about physical activity in our children. To participate in the RC project and collect data needed for the project, the “Thailand Physical Activity Children Survey (TPACS)” was initiated and conducted as part of the lead author’s PhD.



The 2016 TRC translates scientific evidence into practical knowledge and it is expected to serve as a baseline for future studies and an advocacy tool to drive policy and practices to improve children's health. Results from the study will be an important input for the development of the National Physical Activity Plan and future policy advocacy endeavors. Therefore, the 2016 TRC was developed based on partnership and active involvement from our local and national strategic partners since the beginning of the process. We have concerted efforts from many outstanding local researchers from leading institutions from all over the country to contribute to this study. We have also been able to engage scholars, professionals, and representatives from several ministries working toward healthy active living and child health in our grading assignment process. Now, we hope the 2016 TRC will be used by our multi-sectoral partners at local and national levels to keep our kids moving and healthy.



# Benefits of Physical Activity in Children

Physical activity in children and youth is associated with numerous health benefits. Scientific evidence confirms that childhood physical activity has positive effects on muscular strength, bone health, physical fitness, metabolic risk profile including blood pressure, and several components of cardiovascular health<sup>3</sup>. Benefits of physical activity not only limit to physical health but also mental health. Physical activity can help promote self-concept, reduce anxiety and depression<sup>4</sup>. Moreover, physical activity advanced academic performance<sup>5,6</sup>, social skills, and general wellbeing<sup>3,7,8</sup>.

Children aged 5-17 years are suggested to accumulate at least 60 min of moderate-to-vigorous physical activity everyday<sup>9</sup>. For this age group, activities can be unstructured and part of play e.g. chasing with friends, playing on playground equipment, and climbing trees. Children's daily activities can also include active transportation, recreation, physical education, and planned exercise which can take place in family, school, and community.

The dose-response relationship between physical activity and health were also observed. The more physical activity, the greater the health benefits<sup>3</sup>.

Even the modest amounts of physical activity can have tremendous health benefits in high-risk youth (e.g. obese and high blood pressure).







## Primary Data Source

The “2016 TRC” was developed based on “Thailand Physical Activity Children Survey (TPACS)” conducted in 2015. TPACS was a school-based survey collecting data from 16,788 children aged 6-17 years in 336 schools in 27 provinces in 9 regions and Bangkok. A multi-staged stratified sampling was applied to recruit the samples.

## Methods

TPACS applied a cross-sectional study design. To collect data for TPACS, two new data collection instruments were developed: 1) the Student Questionnaire (TPACS-SQ); and 2) the School Principal Questionnaire (TPACS-SPQ). Student questionnaire data were collected from a representative sample of 16,788 children aged 6-17 years calculated based on 11.1 million students across the country.<sup>10</sup> Student response rates are reflected in school participation which was 84.3% of those invited. A multi-stage stratified cluster sampling was adopted to recruit students into the study.





Data collection of TPACS-SQ was conducted within each school followed study protocols developed for each age group (6-9, 10-13, and 14-17 years old) to accommodate the differences in student capability and maturity. All surveys were collated and data entry was conducted by a trained group of research staff within each region. Data were double entered and manually checked to rectify discrepancies. Final datasets from each region were centrally collated by the lead author, systematically cleaned, and analyzed.

Data collection of the TPACS-SPQ was done by mail. The questionnaire was mailed to the participating schools with an invitation to the School Principal to complete and mail back. The final response rate was 45.8% (n=153).

All data collection was conducted during June 2015 – January 2016. The study protocols received ethical approval from University of Western Australia and the Institution for the Development of Human Research Protections in Thailand.





## Research Instruments

The Student Questionnaire (TPACS-SQ) and the School Principal Questionnaire (TPACS-SPQ) were purposively developed tailored to the report card core indicators. For indicator 9 (Government strategies and investment), data was not provided from TPACS. Secondary data from available local studies and government published and unpublished reports were reviewed to inform this indicator.

## Student Questionnaire (TPAC-SQ)

The TPACS-SQ was used to collect nationally representative data on participation in physical activity and relevant data for the social, environmental, and policy related RC indicators. The TPACS-SQ was developed by modifying and translating a previously tested instrument, the Child and Adolescent physical activity and Nutrition Survey (CAPANS) used in state-wide survey of Western Australian children in 2003<sup>11</sup> and 2008.<sup>12</sup> Items collected physical activity participation across key domains (namely, sport, recreation, play, and travel to school), sedentary behaviors, physical education, attitudes toward physical activity, family and peer support, and home and community environment.

Three versions of the questionnaire were developed, with the level of detail collected tailored to match the capabilities of the three age groups (6-9, 10-13, and 14-17 years). Validity of the original items used in CAPANS correlated significantly ( $r = 0.39$ ,  $P < .001$ ) with accelerometer data with relatively high reliability ( $ICC = 0.77$ )<sup>13</sup> and 38% of items measuring frequency and 27.5% of items measuring duration had acceptable  $ICC$ <sup>14</sup>. Test-retest reliability of the items measuring overall physical activity in Thai provided lower Kappa values. Discrepancies in the Kappa values and the  $ICC$  between CAPANS and TPACS are likely due to necessary modifications to response scales, item ordering and wording and translation.

The three versions of Student Questionnaire (TPACS -SQ) are available for access at [www.parc.padatabase.net](http://www.parc.padatabase.net)



# The School Principal Questionnaire (TPACS-SPQ)

TPACS-SPQ comprised 59 items assessing school policy, provision of physical and health education classes, extracurricular activities, sport facilities and equipment.

## Global Matrix 2.0 Indicators

Data collection  
protocol  
&  
Training  
Protocol

Student  
Questionnaire(3  
versions: 6-9, 10-13,  
14-17 years old)



Indicator 1-6, 8

2. School Director  
Questionnaire



Indicator 7

Secondary data (Not  
provided from TPACS)



Indicator 9





# Development Process

Sep - Dec 2014  
Reviewed literature,  
developed study concept & instruments

Jan - May 2015  
Trained field staff, recruited samples, &  
prepared for data collection

Jan - Nov 2015  
Collected data & double  
entered data

Dec 2014 - Mar 2016  
Cleaned & analysed data

Jan - Feb 2016  
Set up a National RC  
Committee & updated literature

Mar 2016  
The 1st National Committee  
meeting (1 full day)

April 2016  
The 2nd National  
Committee meeting (2 full days)

May 2016  
Submitted final grades  
to Global Matrix 2.0

## Grading Scheme

The following international grading scheme was used to assign a grade for each indicator. This grading scheme allows for international comparison.

**A =**

Thailand is succeeding with a majority of children and young people (81 - 100%)

**B =**

Thailand is succeeding with well over half of children and young people (61 - 80%)

**C =**

Thailand is succeeding with about half of children and young people (41 - 60%)

**D =**

Thailand is succeeding with some but less than half of children and young people (21 - 40%)

**F =**

Thailand is succeeding with very few children and young people (0 - 20%)

Thailand has made some adjustments to this grading scheme in order to refine the grade with “minus” or “plus”. The adjusted grading scheme to which Thailand refer when assigning the grade is as follows:

**A ≥ 81%**



**Neutral**



**B+ = 76 - 80%**

**B = 66 - 75%**

**B- = 61 - 65%**

**C+ = 56 - 60%**

**C = 46 - 55%**

**C- = 41 - 45%**

**D+ = 36 - 40%**

**D = 26 - 35%**

**D- = 21 - 25%**

**F ≤ 20%**

## How to Assign a Grade?

Grading assignment was undertaken by the National Report Card Committee comprising experts from many key stakeholders (See the list of the Committees). Grading was quite simple and the followings were steps taken to assign the grade.

### Step 1

The Committee discussed measure(s) in the indicator and definition of terms used in each measure until all committee members clearly understood and agreed on the same basis. Available data was then presented and discussed.

### Step 2

To refine the “A” to “F” grades, specific criteria were set for adding “+” or “-”. For single indicators that comprised one measure, data disparity in age and sex was considered for the adjustment of grades. For indicators that comprised more than one measure, an equal weighting was allocated to each contributing metric, unless those metrics had significant shortfalls such as data was only available to one age group.





### Step 3

Step 3 was only used for multiple matrix indicators. The percentages of all measures in the indicators were combined and divided by the total number of metrics. Then, a final grade will be given by referring back to step 2.

For each indicator, the data were reviewed for all ages, boys and girls, and discussed thoroughly until a consensus grade was reached.

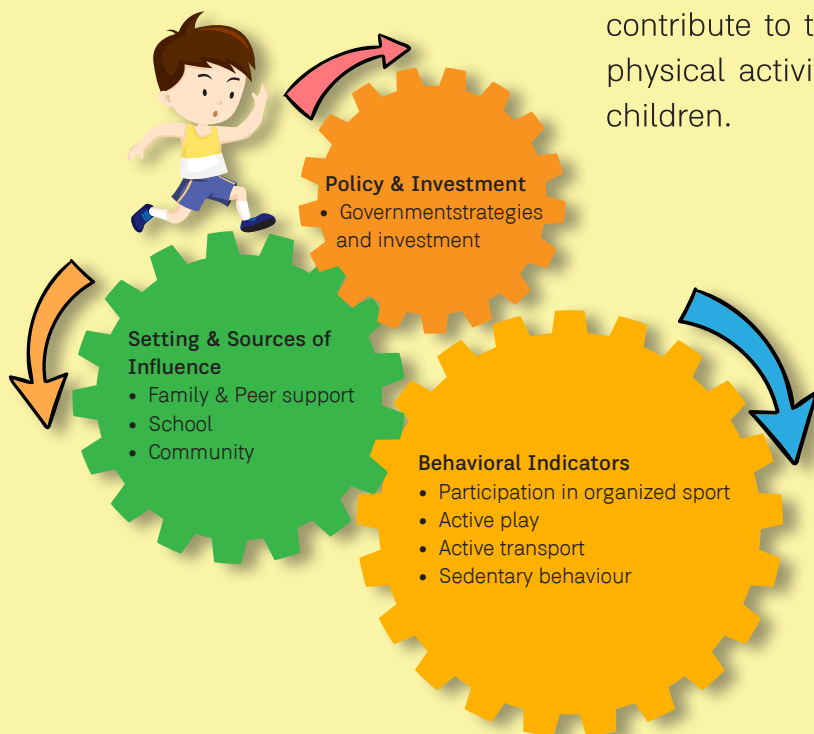


## Core Indicators

To allow for international comparison, nice core indications were identified by the Global Matrix 2.0. These core indicators were categorized into 3 main groups. First, participation in organized sport, active play, active transport to school, and sedentary behavior are behavioural indicators that contribute to overall physical

activity levels. Second, family and peer support, school, community, and built environment are related to settings and sources of influence which may prohibit or encourage children's participation in physical activity. Third, government strategies and investment can have significant impacts on physical activity behaviour and active healthy living choice for all walks of life. These eight indicators

contribute to the overall physical activity level in children.





## Overall Physical Activity Levels : D-

Benchmark	Overall prevalence
% of children who were physically active for a combined total of at least 60 min/day for 7 days	23.2%

TPACS 2015 revealed that only 23.2% of Thai children and youth aged 6-17 years met the physical activity guidelines of 60 min MVPA daily.<sup>9</sup> In general, girls were less active than boys. In all age groups, a large difference in the proportion between boys and girls who met the guideline was found. The differences were 9.2%, 11.2%, and 15.2% in 6-9, 10-13, and 14-17 year group respectively. The proportion of girls meeting the guidelines was <20% in 6-9 (19.5%) and 14-17 year group (12.1%), except 10-13 year group (20.5%).



# Organized Sport Participation : C

Benchmark	Overall prevalence
% of children who participated in any sports/sport competitions organized by school/local authorities/other organizations (apart from physical education class)	46.6%

Overall, 46.6% of children aged 6–17 years reported participating in organized sports. Boys participated in organized sports more than girls in all age groups. The biggest difference of 12.6% in the proportion between boys and girls participating in organized was identified in 14–17 year group. Children aged 10–13 years old participated in organized sports the most (53.1%), whereas the oldest age group (14–17 years) participated the least (42.4%).

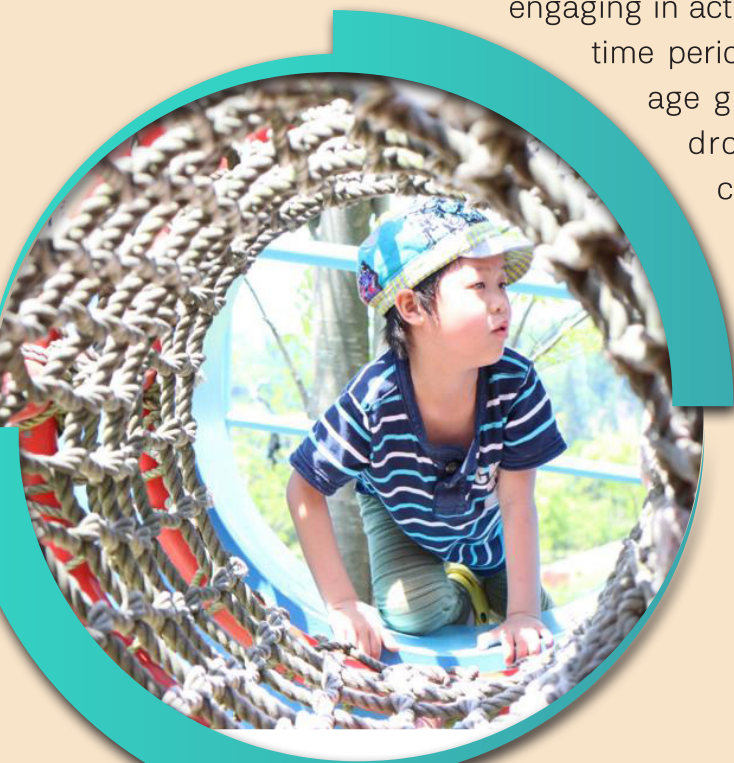


## Active Play : F

Benchmark	Overall prevalence
<ul style="list-style-type: none"><li>• % of children who played actively e.g. taking a walk or running around with friends in <math>\geq 2</math> free time periods on school days (19.9%)</li><li>• % of children who did recreational activities e.g. play at child playground, and chasing with friends on weekday and weekend days for <math>&gt;2</math>hr/day on average (Data only available for 14-17 year group) (9.1%)</li></ul>	19.9%

Only 9.1% of youth aged 14-17 years engaged in unstructured or unorganized active play  $>2$  hrs/day. 19.9% of children and youths aged 6-17 years participated in active play more than twice over the four free periods at school. Boys engaged in active play more than girls in all age groups in both metrics. The percentage of children

engaging in active play during the free time periods decreased in older age groups. The percentage dropped from 39.1% in children aged 6-9 years to 14.5% in 10-13 years and down to 4.5% in the oldest age group.



## Sedentary Behavior : D-

Benchmark	Overall prevalence
<ul style="list-style-type: none"> <li>• % of children who had sedentary behavior e.g. watched TV, and played electronic games for a combined total of <math>\leq 2</math> hrs/day for 7 days (21.8%)</li> <li>• % of children who did screen-time activities e.g. watch movies, use computer, and do Facebook on weekday and weekend days for <math>\leq 2</math> hr/day on average (Data was only available for 14-17 year group) (29.7%)</li> <li>• % of children who did sitting-down activities <math>\leq 2</math> hr/day in the past 7 days (Data was only available for 14-17 year group) (32.9%)</li> </ul>	21.8%

To determine the grade, we used the Thai Ministry of Public Health's exercise guideline recommending that youth should spend  $\leq 2$  hrs/day watching television<sup>15</sup> which is consistent with the Canadian sedentary guideline (i.e. school-aged children should spend  $\leq 2$  hrs/day engaging in sedentary time).<sup>16</sup> Among children aged 14-17 years, 29.7% reported doing screen time activities (e.g. watch television, and Facebook) and 32.9% reported doing sitting-down activities (e.g. travel in motorized vehicles, and read cartoons)  $\leq 2$  hrs/day. Overall, only 21.8% of children aged 6-17 years spent  $\leq 2$  hrs engaging in sedentary behavior (e.g. using the computer, and playing electronic games). The percentage of children who met the guideline decreased with age from 26.1% in the 6-9 year group to 21.8% in the 10-13 year group and 17.6% in the 14-17 year group. The Committee decided to assign the grade based on data that was available for all age groups.







## Active Transport : B

Benchmark	Overall prevalence
<ul style="list-style-type: none"><li>• % of children who took active transport e.g. walk, bike, and public transportation as a usual means to travel to and from school (51.2%)</li><li>• % of children who took active transport e.g. walk, bike, and skate boarding to community facilities available within 10 min walk of home (Data was available for children aged 10-17 years) (96.7%)</li></ul>	73.6%

A high proportion of children (96.7%) aged 10-17 years reported using active transport to and from community facilities with a little difference in the proportion between sexes. A much lower proportion (51.2%) of children reported using active means to travel to and from school with a higher proportion of boys found in all age groups, except 14-17 year group. The lowest proportion of 40.2% was found in 6-9-year-old girls who used active means to travel to from school. Results from these two metrics were weighted equally as travel to community facilities was considered an integral part of children daily's life.

# Family and Peer Support : B

Benchmark	Overall prevalence
<ul style="list-style-type: none"><li>• % of children who reported that their parents encouraged them to play sport or exercise (85.6%)</li><li>• % of children who reported that their parents played/ exercised/ played sports with them ≥1-2 times a week (32.8%)</li><li>• % of children who reported that their friends encouraged them to be physical active (85.5%)</li><li>• % of children who reported that they encouraged their friends to be physical active (84.9%)</li><li>• % of parents who were physically active (Data was not provided from TPACS) (68.1%)<sup>17</sup></li></ul>	71.4%

85.6% of Thai children aged 6-17 years indicated that their parents encouraged them to play sports or exercise. However, only 32.8% reported that their parents were physically active with them. A large proportion of children (84.9%) disclosed that they themselves encouraged their peers to be physically active. A similar proportion (85.5%) indicated that their peers in turn encouraged them to be play actively. When considering the percentage of parents who met the physical activity guidelines for adults<sup>9</sup>, another study revealed that 68.1% of the Thai adults were sufficiently active.<sup>17</sup> These metrics were given equal importance when the final grade was assigned.



## School : C

Benchmark	Overall prevalence
<ul style="list-style-type: none"><li>• % of schools with certain active school policies e.g. policy to promote active play, extracurricular activities, and use of facilities/equipment outside school hours (27.7%)</li><li>• % of schools having physical education classes taught by specialist PE teacher(s) (60.0%)</li><li>• % of schools offering physical education class time <math>\geq 150</math> min/week (0.0%)</li><li>• % of schools organizing extracurricular activities that provided students with opportunities to be physical active outside school hours (excluding formal physical education class) (93.0%)</li><li>• % of parents participating in extracurricular activities organized at school (estimated by schools) (54.9%)</li><li>• % of schools allowing students to use indoor/outdoor sport facilities and equipment before and after school (95.9%)</li></ul>	55.3%

Six metrics retrieved from the TPACS-SPQ were used to form the grade of the school indicator. The TPACS-SPQ revealed that 27.7% of the schools had policies specifically promoting physical activity and that 60% of PE class were taught by a physical education (PE) specialist. No school provided their students with a total of  $\geq 150$ -minute PE class time/week. Most schools (93%) organized extracurricular activities outside school hours and parents were invited to these activities. However, schools indicated that 54.9% of the parents joined the activities. Almost all schools (95.9%) had their in/outdoor physical activity facilities and equipment available to students for use outside school hours. The grade results from multiple metrics ranging from A to F made the final grade of C.



# Community and Built Environment : C

Benchmark	Overall prevalence
<ul style="list-style-type: none"><li>• % of children reporting that sport/exercise facilities were available in their community within 10-min walking from their home (71.6%)</li><li>• % of children perceiving that their community provided them with physical activity facilities at good locations, in good and safe conditions, and with reasonable cost or no cost. (Ranging from 53.1 – 57.4%)</li><li>• % of children reporting that their community regularly organized activities related to physical activity (51.1%)</li><li>• % of children who reported that their neighborhood was safe enough for them to play during the day (61.2%)</li><li>• % of children who played outdoor for a combined total of at least 2 hrs/day for 7 days (11.7%)</li></ul>	52.2%

71.6% of the youth aged 6-17 years indicated availability of sport and exercise facilities in their community. Well over half of the youth (ranging from 53.1 – 57.4%) perceived that their community provided them with PA facilities at good locations, in good and safe conditions, and with reasonable cost or no cost. 51.1% also perceived that their community regularly organized activities for people to be physically active. 61.2% felt safe enough to play during the day in their neighbourhood. Nevertheless, a small proportion (11.7%) of children aged 6-17 years reported that they played outdoor  $\geq 2$  hrs/day with the smallest proportion of 5.1% found in the 14-17-year-old girls. The results of these metrics were also weighted equally to form the final grade.



## Government Strategies and investment

The National Committee reviewed the grading scheme set by the Global Matrix for this indicator but concluded it could not be used directly because it was difficult to determine a percentage of each measure. Instead the Committee considered current evidence from government's published and unpublished documents, policies, strategic plans, and programs promoting physical activity with allocated resources.<sup>18, 19, 20, 21</sup> Examples are the development of a strategic plan to promote physical activity in all age groups and a National Plan on Physical Activity of the Ministry of Public Health.<sup>22, 23</sup> Additionally, Ministry of Tourism and Sport as well as local governments have allocated budgets and resources for the implementations of sport and recreational programs including construction of infrastructures to promote children's health.<sup>24, 25</sup> Despite the existence of policies and availability of resources, evidence demonstrating implementations and progress of the formulated policies and intended programs including leadership and commitment of the government authorities in promoting physical activity particularly in the children was limited. Consequently, a moderate grade of C was assigned to this indicator.

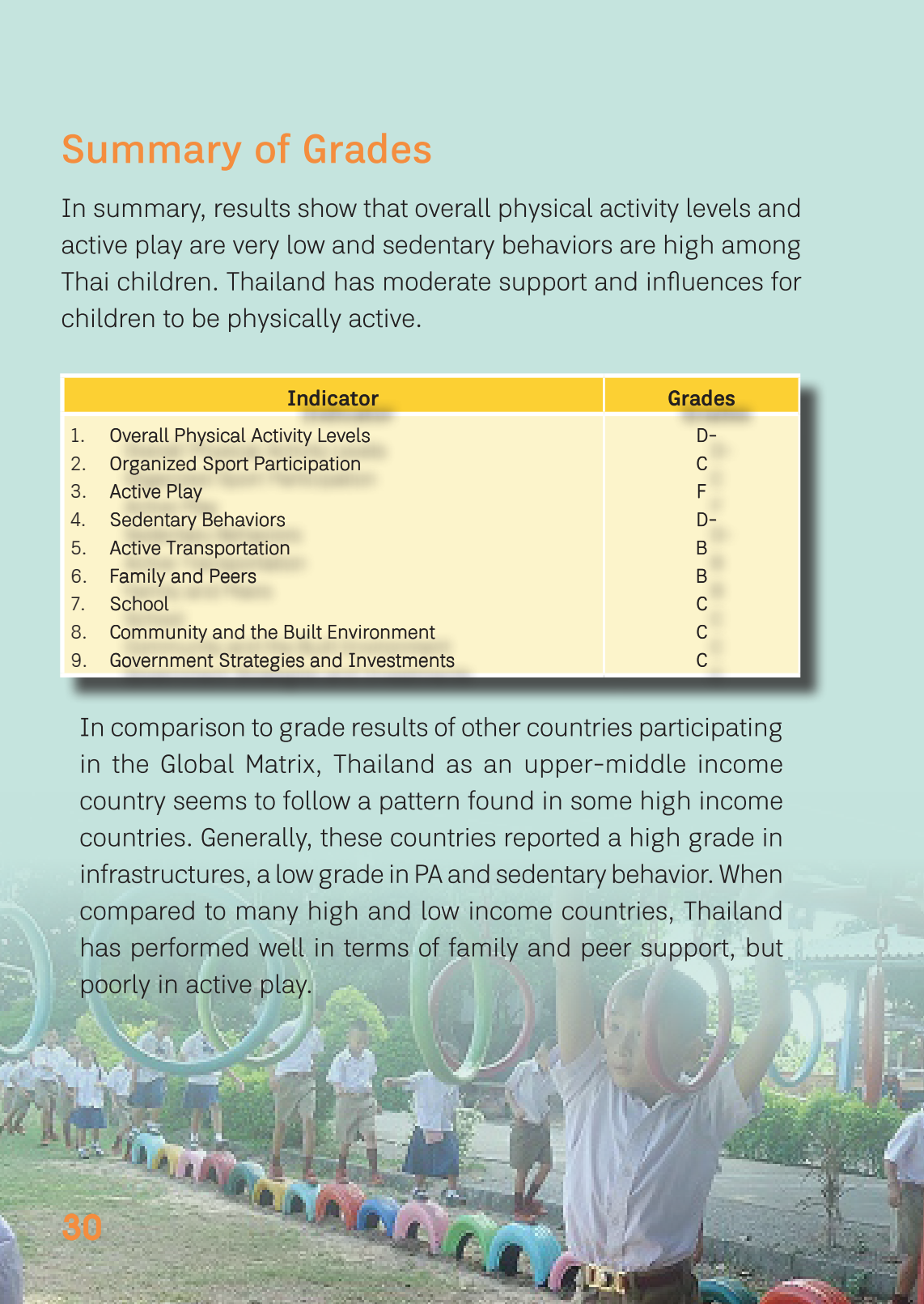


# Summary of Grades

In summary, results show that overall physical activity levels and active play are very low and sedentary behaviors are high among Thai children. Thailand has moderate support and influences for children to be physically active.

Indicator	Grades
1. Overall Physical Activity Levels	D-
2. Organized Sport Participation	C
3. Active Play	F
4. Sedentary Behaviors	D-
5. Active Transportation	B
6. Family and Peers	B
7. School	C
8. Community and the Built Environment	C
9. Government Strategies and Investments	C

In comparison to grade results of other countries participating in the Global Matrix, Thailand as an upper-middle income country seems to follow a pattern found in some high income countries. Generally, these countries reported a high grade in infrastructures, a low grade in PA and sedentary behavior. When compared to many high and low income countries, Thailand has performed well in terms of family and peer support, but poorly in active play.





A young child with dark hair, wearing a blue t-shirt and white shorts, is running on a green grassy field. The child is looking down and to the left. In the background, there are blurred figures of other people and green foliage.

## Cover Story (Active Play)

On completion of the grading process and Committee discussion, one indicator was selected as the main focus to be communicated with public in the RC. The selection was determined by considering the final grades, key target groups, implications of policy and practice within Thailand context and social values, attitudes, and culture.

Active play was the most alarming behavioural indicator (F) and was chosen as the cover story. The failing grade of “F” indicates that Thai children do not engage in sufficient energetic activities like recreational and unstructured play. However, this contrasted with the apparent high level of parental encouragement for children to play sports or exercise which scored C. The low level of active play and greater engagement in structured sport and exercise may be explained by the value placed on different types of physical activity by Thai parents. Thai children have enormous pressure on high academic achievement and “just playing” may be viewed as less important .<sup>26, 27</sup> In part, the committee recognized that parental influence was high for participation in sport and exercise and raising the importance of encouraging active play by parents and opportunities for children to play calls for collective efforts to improve this indicator. The committee considered this to be a key finding from the report card process and encouraged active play to be chosen as the cover story for the 2016 TRC.

## Recommendations

The 2016 TRC is informative and clearly shows evidence to decision makers on areas of priority in policies and practices to overcome existing challenges. Many stakeholders at different levels can contribute to the improvement of Thailand's response to the rise in physical inactivity in children. The following recommendations address physical inactivity in general with an emphasis on active play as it is a priority for Thailand.



# 1

Put a priority on the young when developing the National Physical Activity Plan and highlighted active play. Interventions at early age will increase the likelihood of life-long physical activity at a later stage of life. Active play should be highlighted, while trying to increase physical activity level and lowering sedentariness.

# 2

More importantly, the plan should allocate sufficient funding and resources necessary for the implementations of interventions for the young.





# 3

Incorporate active play concept into the government's piloted project namely "Reduce formal class hours, Increase learning outside school hours" as it may ease implementations of this product while widely promoting physical activity among children.

# 4

Integrate the RC indicators into the "Health Promoting School" project of Ministry of Public Health. With a large number of schools participating in this project, the integration would rapidly promote physical activity concept and accelerate a translation of knowledge into practices in schools.



5

Status of PE in the national education system should be escalated and a simple concrete action is to increase the minimum time suggested for PE class in the curriculum. This intervention is influential as the curriculum is an authoritative guideline which is supposed to be followed by schools across the country.

6

Local authorities should provide physical activity facility and equipment in the areas that are in need and the facilities should be expanded to support recreational activities such as playgrounds, parks, and public open spaces. The design of the facilities and equipment should be adjusted to be suitable and attractive to children. Safety of the facilities and safety from crimes and traffic in community should also be ensure to encourage children to play outdoor.



# 7

At school level, there is a variety of possible interventions that schools can implement. Schools should increase physical education class time (at present schools typically offered  $\leq 60$  mins/week). School should also hire a physical education specialist or invite a qualified volunteer from their community to ensure quality physical education class time. Exercise and sport facilities and equipment at school should be ensured that they are adequate, easily accessible, and safe to use. The facilities and equipment should not only be provided for the physical education classes but also for students' self-initiated activities during free times and outside school hours. Extracurricular activities that are enjoyable and require physical movement should be created and offered to students to expand opportunities for them to be physically active. Schools should also consider adding policies promoting physical activity and active play that are suitable in their local contexts.





# 8

To understand more about physical activity and sedentary behavior in Thai children, more research is essential. Continuous surveillance is also necessary to monitor trends over time. The Physical Activity Research Center should collaborate with research institutions that regularly conduct a national surveillance study concerning children's health by adding some variables that are lagging.

# 9

Parents should extend their supports to other domains of physical activity other than sports and exercise. Facilitations to children's recreational activities and permissions granted to children to play actively and freely will be likely to reduce children's sedentariness.





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## National Report Card Committee

The grades were assessed by the National Committee of the 2016 TRC consisting of 24 members. They were 10 academia representing 9 regions including Bangkok, 6 experts in the field, 5 representatives from Ministry of Public Health, Office of Basic Education Commission under the Ministry of Education, Ministry of Interior Affairs, Ministry of Tourism and Sports, National Statistical Office), and 3 researchers from Physical Activity Research Centre (PARC). The Committee was officially set up and authorized by Thai Health Promotion Foundation (ThaiHealth) to, inter alia establish criteria to determine a grade and to assign a grade for each indicator. The committee reviewed the results and supporting literature and discussed grades and grade adjustments. The committee members from government authorities additionally provided input by collating relevant documents for the government indicator. The Committee met twice in March (1 day) and April (2 days) in 2016 to accomplish their mission. On the second meeting, international experts and Leader of Global Matrix were invited to participate.

1	Kasem Nakornkhet	Director of Physical Activity Research Centre (PARC)	Chair
2	Arth Nana	Faculty of Medicine Siriraj Hospital, Mahidol University	Member
3	Nittaya Pensirinapa	School of Health Science, Sukhothai Thammathirat Open University	Member
4	Vijit Kanungsukkasem	Thailand Association for Health, Physical Education and Recreation	Member
5	Vijj Kasemsup	Faculty of Medicine Ramathibodi Hospital, Mahidol University	Member
6	Yodchanan Wongsawat	Faculty of Engineering, Mahidol University	Member
7	Naphatbongkod Suphaphich	Division of Physical Activity and Health, Department of Health, Ministry of Health	Member
8	Yistha Vaiwsri	Department of Local Administration	Member
9	Thitikorn Topothai	Division of Physical Activity and Health, Department of Health, Ministry of Health	Member
10	Chalitpol Suebmai	Department of Physical Education, Ministry of Tourism & Sports	Member
11	Apichart Thunyahan	National Statistical Office	Member
12	Wilasinee Phiphitkul	Former Senior Director of Healthy Lifestyle section, Thai Health Promotion Foundation	Member
13	Pairroj Saonuam	Director of Healthy Lifestyle section, Thai Health Promotion Foundation	Member
14	Piyawat Katewongsa	Deputy Director of Institute for Population and Social Research of Mahidol University	Member
15	Chairat Choosakul	Faculty of Education, Mahasarakam University	Member

16	Tippawan Kaewmanee	Faculty of Medicine, Prince of Songkla University	Member
17	Kurusart Konharn	Faculty of Associated Medical Sciences, Khon Kaen University	Member
18	Atchara Purakom	Faculty of Education and development Sciences, Kasetsart University	Member
19	Anoma Santiworakul	School of Allied Health Sciences and Public Health, Walailak University	Member
20	Patraporn Silitertpisan	Faculty of Associated Medical Sciences, Chiang Mai University	Member
21	Sonthaya Sriramatr	Faculty of Physical Education, Srinakharinwirot University	Member
22	Araya Yankai	Faculty of Associated Medical Sciences, Chiang Mai University	Member
23	Areekul Amornsriwatanakul	A PhD Candidate at University of Western Australia	Member and Secretariat
24	Mallika Kosolsak	Physical Activity Research Center (PARC)	Assistant Secretariat
25	Benthiwa Surasartpisal	Physical Activity Research Center (PARC)	Assistant Secretariat







“Physical activity in my imagination”

Courtesy drawing by a 7-year-old Thai girl

Nayada Mahaboonyanont

Prince Royal's Collage

Chiang Mai, Thailand

2 October 2016

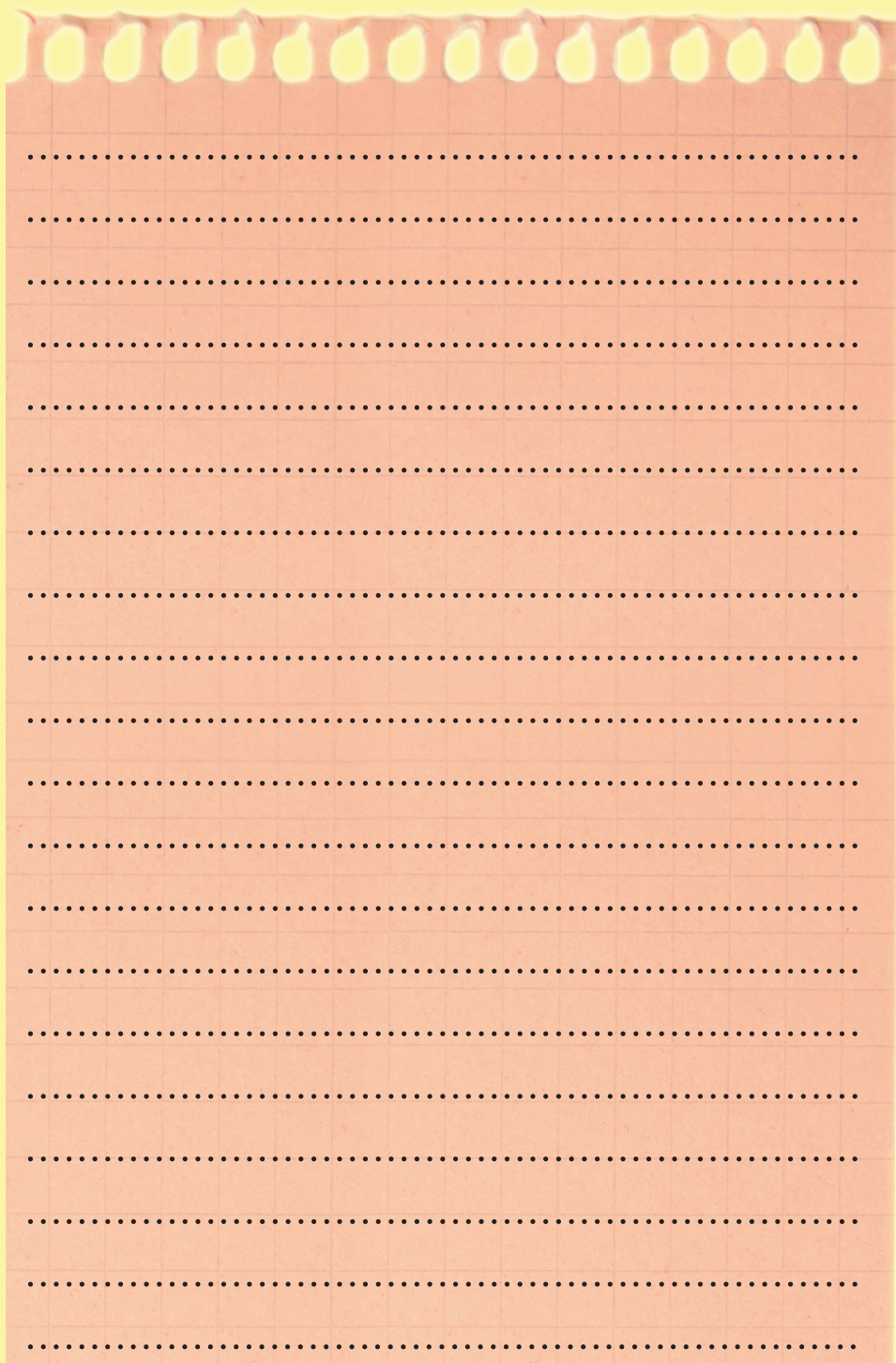
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*“ Participation in the Global Matrix 2.0 has brought several invaluable benefits to Thailand in terms of research capacity building, and policy advocacy. The first attempt of Thailand to develop a Report Card will serve as a baseline and advocacy tool to guide our national policy and actions aimed at increasing physical activity in Thai children ”*

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