



FINLAND'S
REPORT CARD
2018



PHYSICAL ACTIVITY FOR CHILDREN AND YOUTH



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REPORT CARD 2018

— THE STATE OF PHYSICAL ACTIVITY FOR CHILDREN AND YOUTH

Finland's Report Card 2018 is a compilation of recent research results on the status and promotion of physical activity among children and adolescents.

Physical activity for children and adolescents consists of several different parts throughout the day, and it is strongly connected to everyday routines, social networks and the living environment. Through the latest research results, the Report Card sheds light on the state of physical activity of children and adolescents, as well as how it can be promoted in Finland.

Earlier versions of Finland's Report Card were produced in 2014¹ and 2016². Finland's Report Card 2018 was prepared by five research institutions. The work group (p. 50) included Finnish specialists from different fields, working on research, policy or practices related to physical activity among children and adolescents. The LIKES Research Centre for Physical Activity and Health coordinated the compilation process. Finland's Report Card was prepared as part of a global alliance, and a comparison of the physical activity of children and youth in 49 countries will be published in November 2018.

In the Report Card, physical activity is examined and presented through 11 indicators. The different indicators were assessed by a group of specialists according to international instructions.

The global comparison focuses on school-aged children and adolescents. In Finland, preschool-aged children and upper secondary students were also included in the Report Card. The results include all children and adolescents and the physical activity of children and youth with disabilities is described in a separate chapter. In addition to the latest research results, the Report Card outlines changes in physical activity during the 2000s. The Report Card work provides added value to monitoring the situation regarding the physical activity of children and youth.

Decisions that facilitate and prevent physical activity for children and adolescents are being made at all levels of society. The entire society is responsible for promoting the health and physical activity of children and adolescents, and this requires multidisciplinary cooperation between different operators. The effects of decision-making can be seen concretely in the everyday lives of children. The work group encourages decision-makers at all levels – nationally, regionally, in municipalities, education institutes, sports clubs and families – to facilitate physical activity for children and youth and eliminate barriers to it.

REPORT CARD AGE GROUPS

PRESCHOOL-AGED CHILDREN



-6y

EARLY CHILDHOOD EDUCATION

PUPILS IN PRIMARY SCHOOL



7-12y

BASIC EDUCATION
GRADES 1-6

PUPILS IN LOWER SECONDARY SCHOOL



13-15y

BASIC EDUCATION
GRADES 7-9

STUDENTS



16-18y

UPPER SECONDARY AND
VOCATIONAL EDUCATION

PHYSICAL ACTIVITY RECOMMENDATIONS

PHYSICAL ACTIVITY RECOMMENDATIONS FOR EARLY CHILDHOOD (2016)^{3,4}

- A child needs at least three hours of physical activity with varying intensity levels every day, comprising light physical activity, brisk outdoor activities and vigorous physical activity.
- Activity is characteristic of children, which is why sedentary periods should not last longer than an hour; even shorter periods of inactivity should be broken up with something that the child finds enjoyable.
- The child should practise basic motor skills every day in a variety of ways and environments, in all seasons of the year.

BASIC PHYSICAL ACTIVITY RECOMMENDATIONS FOR SCHOOL-AGED CHILDREN (2008)⁵

- All 7-18-year-olds should be physically active for at least one to two hours a day, in a variety of ways suitable for each age group.
- Sitting still for more than two hours straight should be avoided.
- Screen time with entertainment media should not exceed two hours a day.

NATIONAL RECOMMENDATIONS TO REDUCE SEDENTARY TIME (2015)⁶

- For children and adolescents, the recommendation is the one-hour rule: do not sit still continuously for longer than one hour and engage in physical activity for at least one hour a day.
- The purpose of the recommendations is to bring up practical ways to reduce sedentary time for individuals of different ages, as well as in daycare centres, schools, student and work communities, social and healthcare facilities and different municipal sectors.

WORLD HEALTH ORGANIZATION (WHO) RECOMMENDATIONS FOR PHYSICAL ACTIVITY (2010)⁷

- Children and youth aged 5-17 should accumulate at least 60 minutes of moderate-to-vigorous physical activity daily.

PHYSICAL ACTIVITY is defined as any activity that increases energy expenditure and generally leads to movement.

EXERCISE is defined as physical activity that is performed for certain reasons or effects and usually as a hobby.⁸

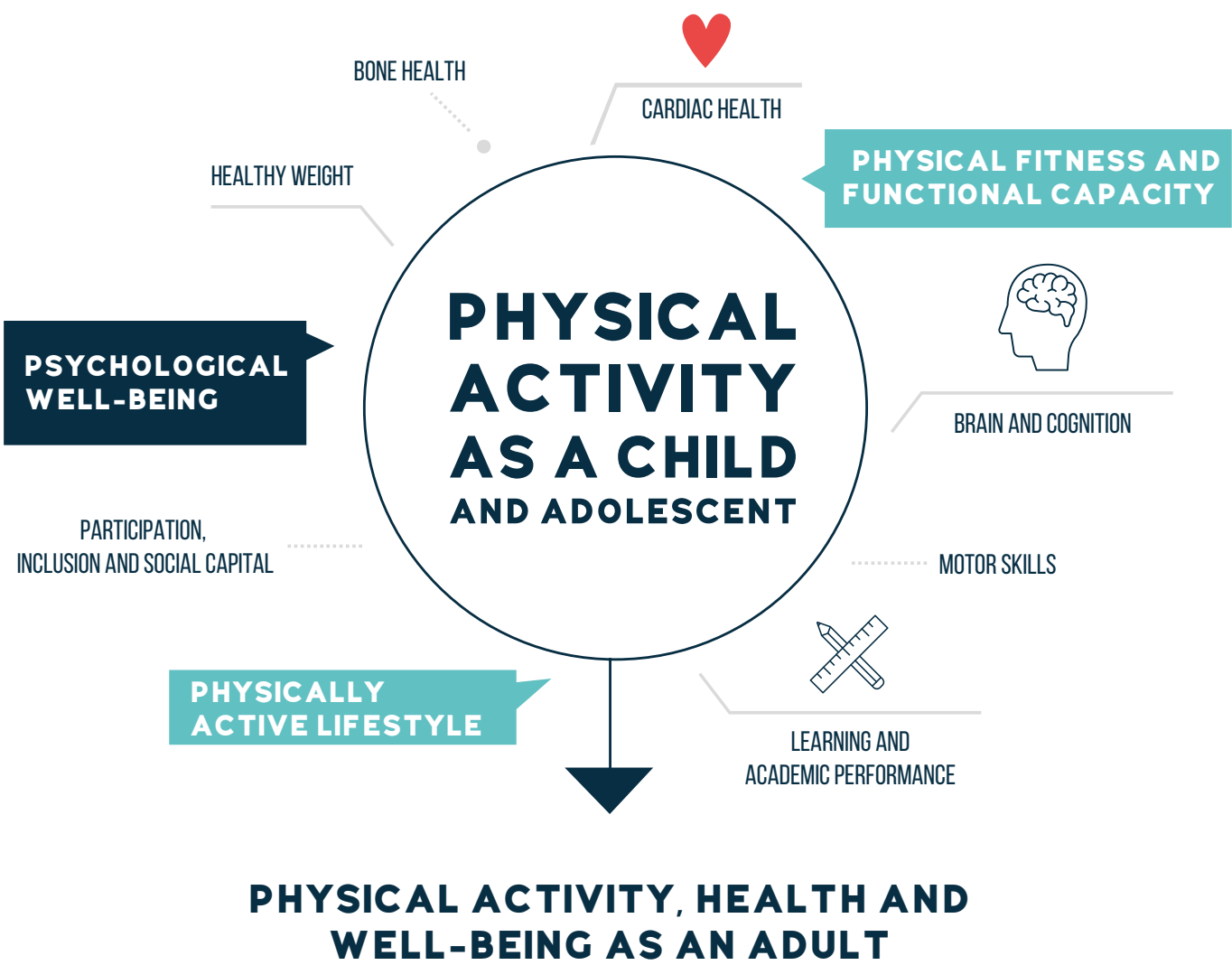
MODERATE-TO-VIGOROUS PHYSICAL ACTIVITY is defined as activity during which the heart rate rises and breathing becomes faster at least to a certain degree.⁵



WHY SHOULD PHYSICAL ACTIVITY FOR CHILDREN AND YOUTH BE PROMOTED?




Studies indicate that physical activity for children and adolescents has many beneficial effects on aspects such as health and well-being, and according to the latest research, learning outcomes.^{4,9,10,11,12,13,14} Furthermore, childhood physical activity affects lifestyles and health later

in life. Promoting children and adolescents' well-being with physical activity is included in the Finnish Government Programme, and the concrete goal is to engage every school-aged child and adolescent in physical activity for at least one hour a day¹⁵.



FINLAND'S REPORT CARD 2018

The work group evaluated the evidence and assigned grades for eleven indicators related to physical activity among Finnish children and adolescents, corresponding to a five-grade scale used by the Active Healthy Kids Global Alliance (from A = best to F = poorest). Grade 'A' means that the indicator in question is realised almost perfectly (81–100%), while 'F' means that the indicator is realised poorly (0–20%).

<div> <div>A81–100%</div> <div>B61–80%</div> <div>C41–60%</div> <div>D21–40%</div> <div>F0–20%</div> <div>INC</div> </div>					
INDICATOR	GRADING	 -6	 7-12	 13-15	 16-18
Overall physical activity	D 27–33%	C+	C-	D-	F
Sedentary behaviours	D- 20–26%	B-	D	F	F
Organised sports participation	C+ 54–59%	C	B	C	D+
Active play	C 47–53%	B	B-	D+	D+
Active transportation	B+ 74–79%	–	A-	B-	–
Family and peers	B- 60–66%				
Early childhood education	C+ 54–59%				
Basic education	A 87–93%				
General upper secondary and vocational education	D- 20–26%				
Community and the built environment	B+ 74–79%				
Government strategies and investments	A- 80–86%				

INDICATORS OF PHYSICAL ACTIVITY FOR CHILDREN AND YOUTH



EDUCATIONAL
INSTITUTIONS FACILITATING
PHYSICAL ACTIVITY

FAMILY AND PEERS
SUPPORTING
PHYSICAL ACTIVITY

COMMUNITY AND THE BUILT ENVIRONMENT

GOVERNMENT STRATEGIES AND INVESTMENTS

01 OVERALL PHYSICAL ACTIVITY

Overall physical activity includes all physical activities accumulated throughout the day, such as hobbies, unorganised physical activity and play, physical education and everyday physical activity. According to physical activity recommendations, preschool-aged children should be physically active for three hours every day at any intensity and school-aged children or adolescents for at least one hour every day at moderate-to-vigorous intensity. This chapter presents the results in relation to the one-hour physical activity recommendation.

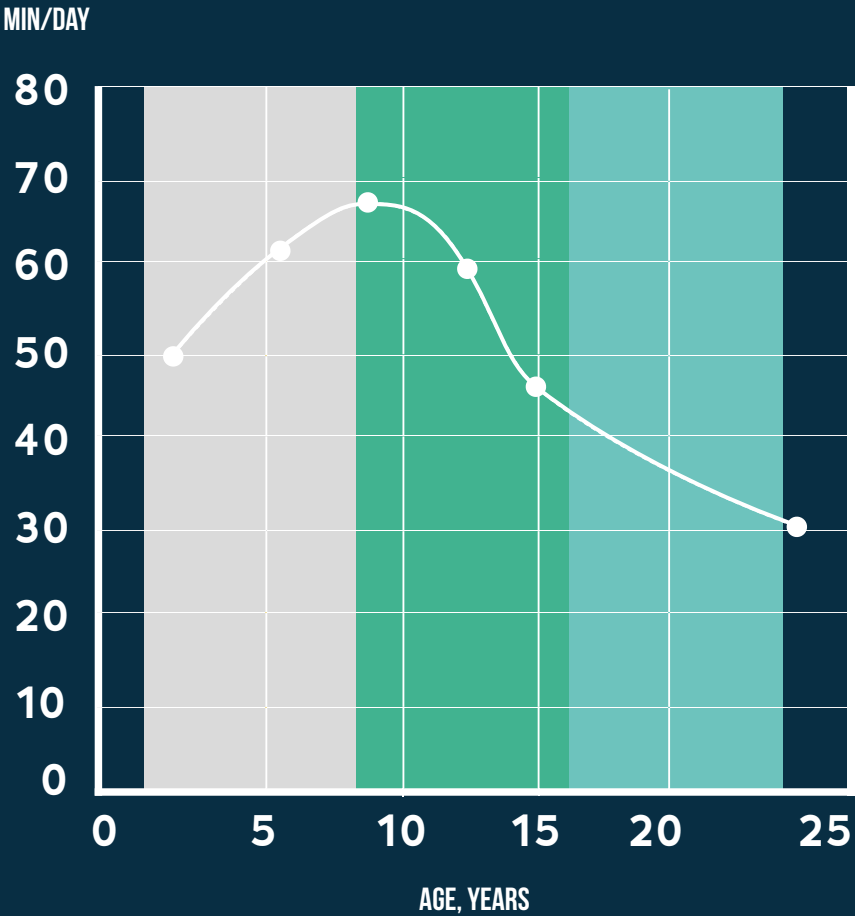
THE RESEARCH USED VARIOUS METHODS TO MEASURE PHYSICAL ACTIVITY:

accelerometer measurements and surveys of the parents and the children themselves. The different measurement and analysis methods produced slightly different results. The same method must always be used for monitoring and comparison.

THE OVERALL PHYSICAL ACTIVITY OF CHILDREN AND YOUTH DECREASES BY AGE

Based on accelerometer measurements, Finnish children are most active in the early years of basic education. From that time on, the amount of moderate-to-vigorous physical activity decreases steadily throughout and after basic education.^{24,17,25,26}

- EARLY CHILDHOOD EDUCATION
- BASIC EDUCATION
- UPPER SECONDARY AND UNIVERSITY EDUCATION



THE GRADE OF D IS BASED ON THE FOLLOWING RESULTS:

Preschool-aged children:

When physical activity of preschool-aged children was measured with an accelerometer, different studies showed that the proportion of children who get at least one hour of physical activity per day is 71%¹⁶ (3–6-year-olds); 47%¹⁷ (5–6-year-olds); 51% of boys and 26% of girls¹⁸ (3–7-year-olds). Furthermore, 71% of the parents of 4-year-olds estimated that their children were active around the home for well over an hour each day¹⁹.

Primary school pupils:

Based on accelerometer measurements in 2016, 51% of 9-year-old children (65% of boys, 41% of girls) and 37% of 11-year-olds (50% of boys, 27% of girls) were active according to the recommendations²⁰. The LIITU study 2018 showed that 45% of 9-year-old children (52% of boys, 39% of girls) and 43% of 11-year-olds (45% of boys, 40% of girls) met the recommendations every day based on self-reports²¹. According to the School Health Promotion study in 2017, 45% of pupils in grades 4–5 get one hour of physical activity per day (50% of boys, 40% of girls)²².

Pupils in lower secondary school:

Based on accelerometer measurements, 21% of 13-year-olds (32% of boys, 15% of girls) and 11% of 15-year-olds (18% of boys, 8% of girls) achieve the recommended minimum of 60 minutes of physical activity every day²⁰. In the 2018 LIITU study 32% of 13-year-olds (35% of boys, 29%) of girls and 19% of 15-year-olds (23% of boys, 15% of girls) reported that they are physically active for at least one hour each day²¹. Similar results were obtained from the School Health Promotion study in 2017, according to which 45% of pupils in grades 8–9 reported that they get one hour of physical activity per day every day (23% of boys, 16% of girls)²².



Students:

In terms of students, accelerometer measurements were only available for general upper secondary students, of which 22% achieve the recommended minimum of one hour of physical activity per day²³. In the School Health Promotion study, 13% of general upper secondary students (16% of boys, 11% of girls) and 13% of vocational school students (14% of boys, 11% of girls) report that they are physically active for one hour a day²².

27–33%

D

% of children and adolescents who meet the minimum recommendation^{5,7} of engaging in at least 60 minutes of moderate-to-vigorous physical activity a day.

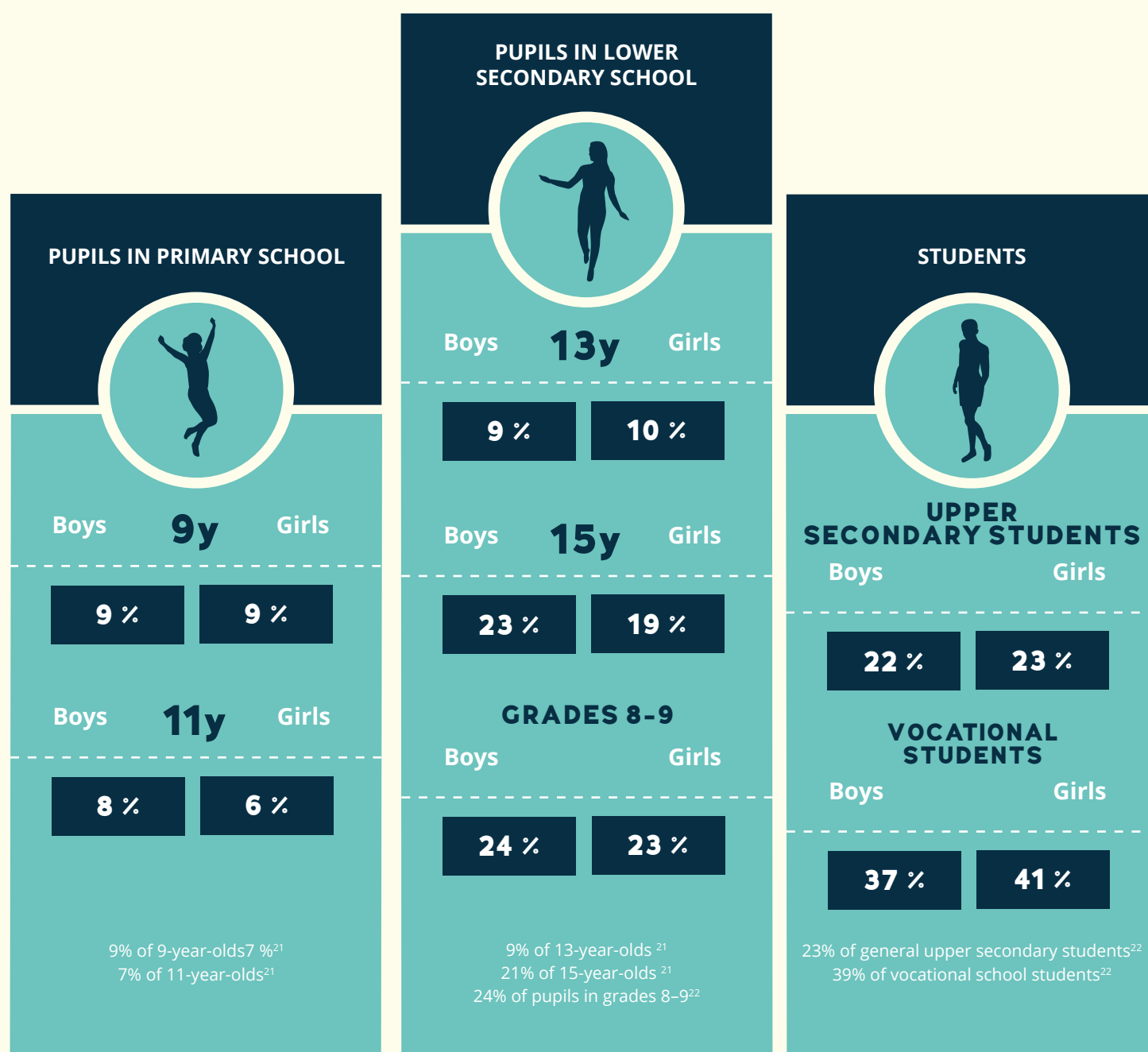
 -6	 7-12	 13-15	 16-18
C+ 54-59%	C- 40-46%	D- 20-26%	F <20%

PHYSICALLY LEAST ACTIVE CHILDREN AND ADOLESCENTS

Those children and adolescents who are least active need the most support for physical activity. In the studies, physical activity is interpreted as low when the one hour recommendation is met on a maximum of two days a week²¹ or when the amount of breathtaking physical activity during free time is no more

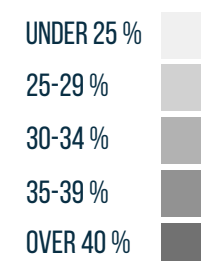
than one hour per week²². Traditional actions to promote physical activity rarely work on the least active children and adolescents. This target group requires special attention, such as tailored physical activity counselling²⁷.

ACCORDING TO SURVEY STUDIES^{21,22}, THE PHYSICALLY LEAST ACTIVE CATEGORY INCLUDES

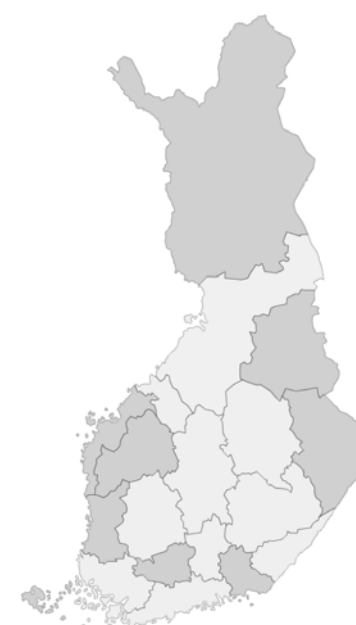


REGIONAL DIFFERENCES IN THE PROPORTION OF PHYSICALLY LEAST ACTIVE CHILDREN AND ADOLESCENTS

Regional differences can be observed when the proportion of physically inactive adolescents is examined by province. Well-being differences are highest between general upper secondary students and vocational students when the proportion of highly inactive students is examined.²²



GRADES 8-9



UPPER SECONDARY STUDENTS



VOCATIONAL STUDENTS



DOES

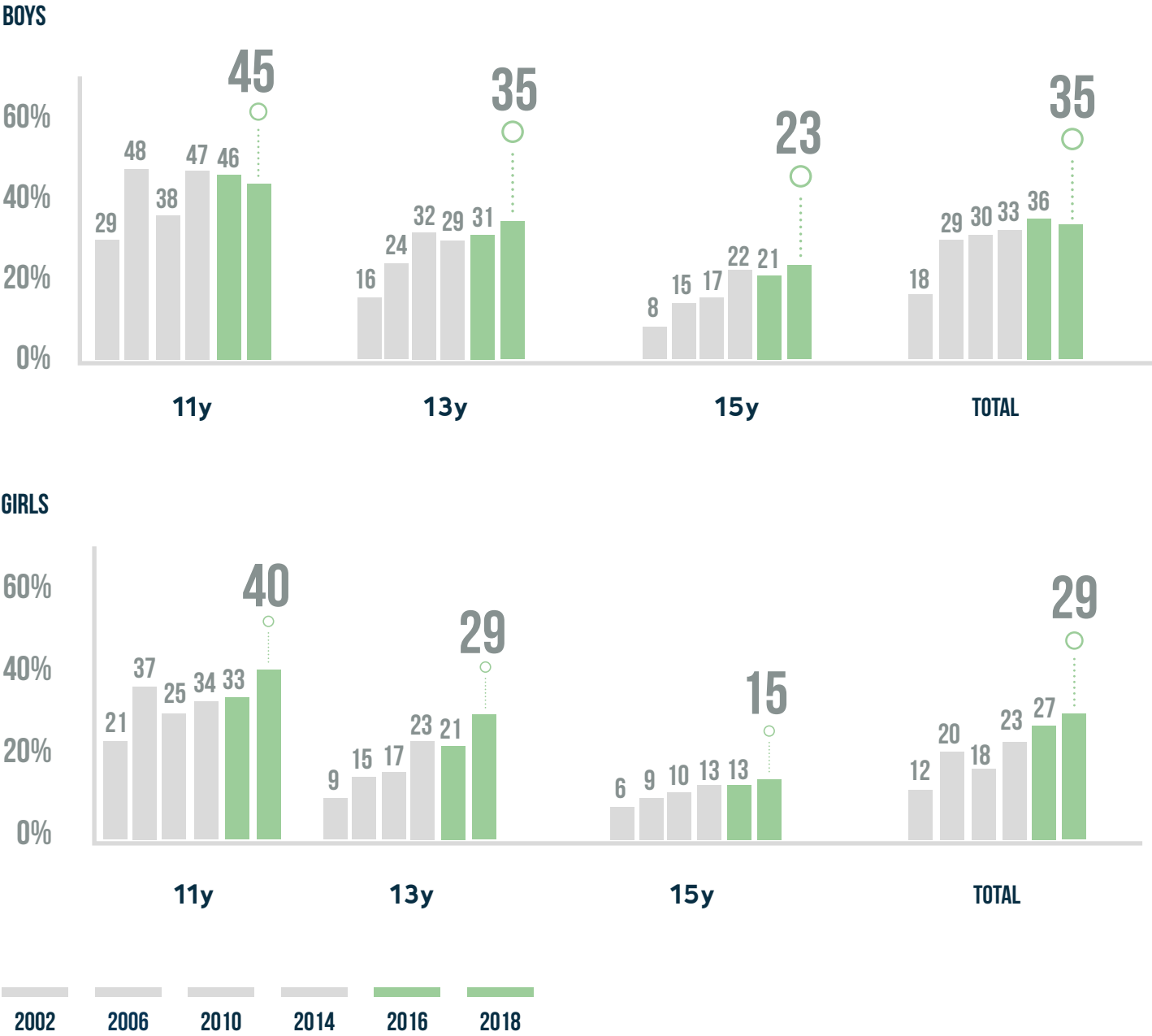
YOUR MUNICIPALITY

POSITIVE DEVELOPMENT IN THE 2000s

Positive development can be seen in Finland in terms of physical activity of children and youth. The proportion of 11–15-years-olds who meet the physical activity recommendations has risen and the share of those who are physically least active has fallen over the past decade.^{28,29,30,21}

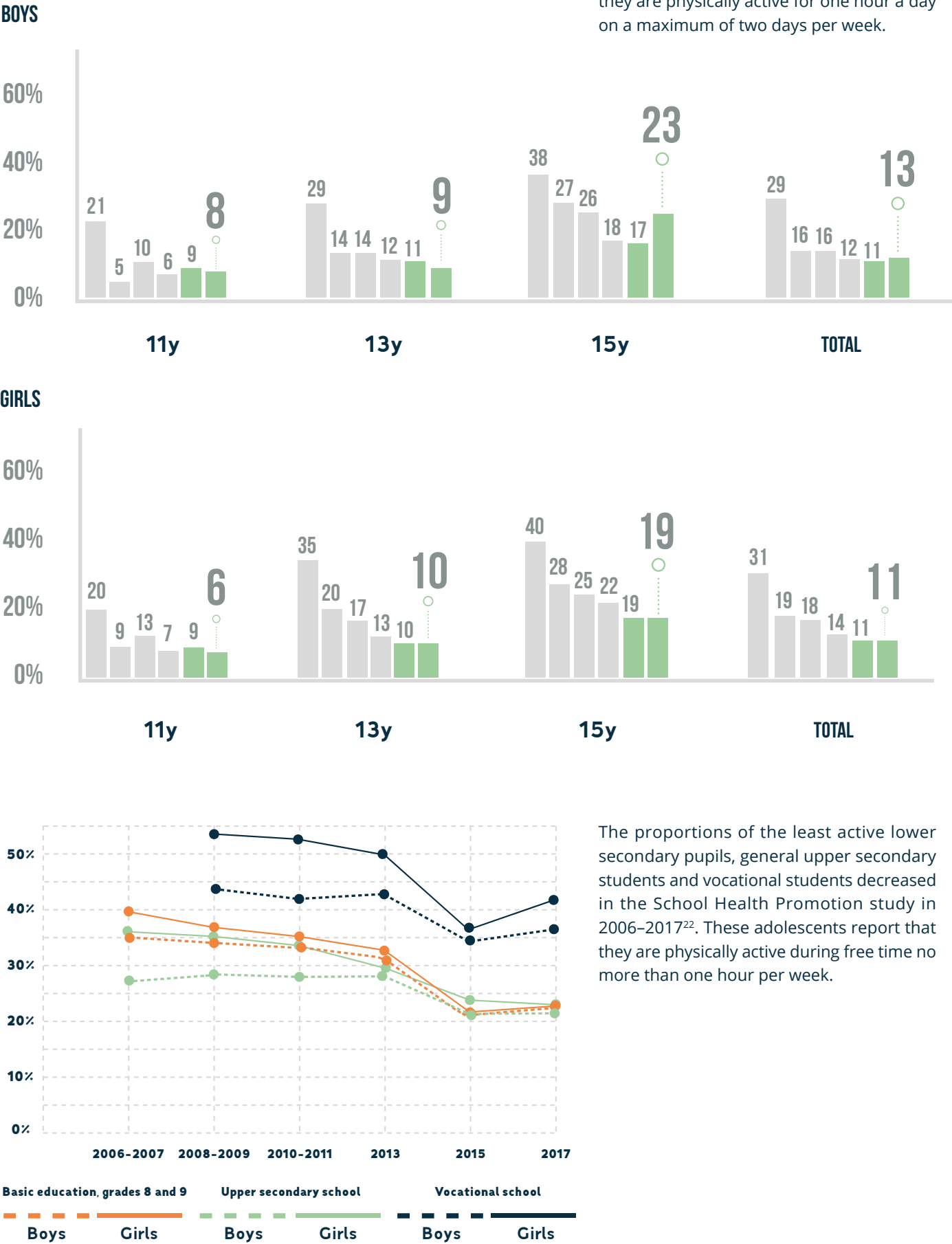
AN INCREASING NUMBER ARE PHYSICALLY ACTIVE FOR AT LEAST ONE HOUR PER DAY

The proportion of boys and girls meeting the physical activity recommendations (%) in different studies in 2002–2018 (Health Behaviour in School-aged Children study 2002–2014, LIITU 2016–2018). These children and adolescents report that they are physically active for one hour every day of the week.



THE PROPORTION OF LEAST ACTIVE CHILDREN AND ADOLESCENTS HAS DECREASED

The proportion of boys and girls who are least active (%) in different studies in 2002–2018 (Health Behaviour in School-aged Children study 2002–2014, LIITU 2016–2018). These children and adolescents report that they are physically active for one hour a day on a maximum of two days per week.

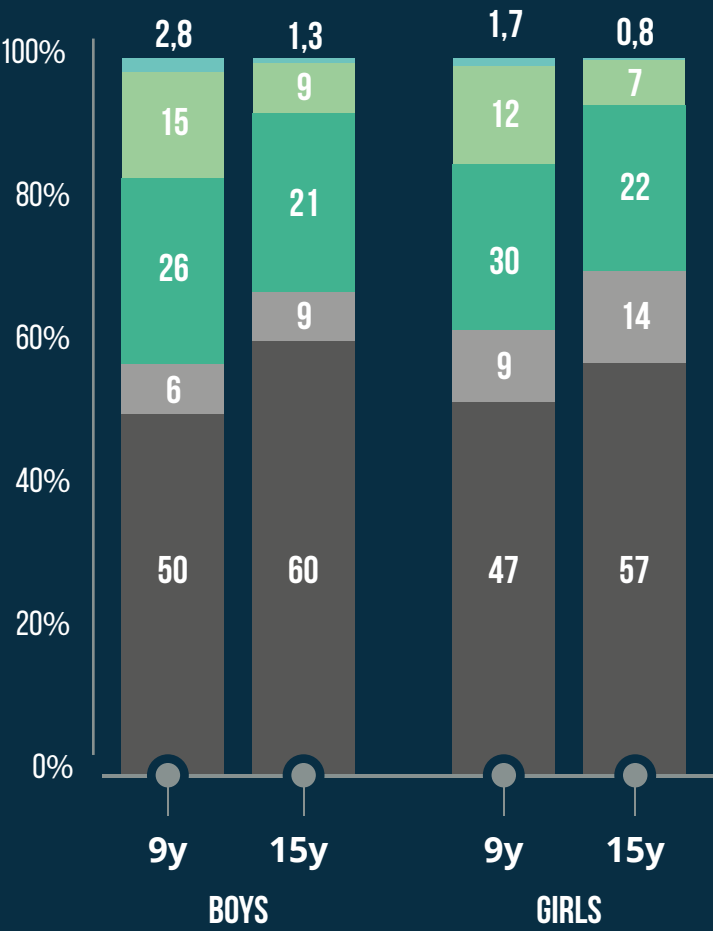


The proportions of the least active lower secondary pupils, general upper secondary students and vocational students decreased in the School Health Promotion study in 2006–2017²². These adolescents report that they are physically active during free time no more than one hour per week.

02 SEDENTARY BEHAVIOURS

Sedentary behaviours refer to the waking time spent in a physically passive manner. Sedentary lifestyle is one of the biggest health risks in the Western world, according to the World Health Organization. In Finland, children get used to a sedentary lifestyle since their early years. Time spent in front of computer and TV screens, also known as screen time, increases the sedentary

time among Finnish children and adolescents and often competes with physical activities. This chapter uses screen time research results to describe sedentary behaviours according to the international model.



CHILDREN AND ADOLESCENTS BECOME MORE SEDENTARY AS AGE INCREASES

Sedentary behaviours increase and physical activity decreases as age increases. The figure describes activity measurements concerning how waking time is spent from the perspectives of physical activity and sedentary behaviours²⁰.

- VIGOROUS ACTIVITY
- MODERATE ACTIVITY
- LIGHT ACTIVITY
- STANDING
- LYING DOWN AND SITTING

THE GRADE OF D- IS BASED ON THE FOLLOWING RESULTS:

Preschool-aged children:

according to a diary filled in by the parents, 61% of 3–6-year-olds have a maximum of two hours of screen time per day^{16,31}. There is no screen time recommendation targeting preschool-aged children.

Primary school pupils:

The LIITU study showed that 35% of 9-year-olds (32% of boys, 37% of girls) and 20% of 11-year-olds (17% of boys, 23% of girls) report that they remain within the screen time recommendation on at least five days a week²¹.

Pupils in lower secondary school:

The LIITU study showed that 11% of 13-year-olds (8% of boys, 14% of girls) and 8% of 15-year-olds (9% of boys, 7% of girls) estimate that they remain within the screen time recommendation on at least five days a week²¹. 15% of pupils in grades 8–9 (16% of boys, 14% of girls) spend less than two hours with social media and playing games on weekdays²².

Students:

16% of upper secondary students (15% of boys, 16% of girls) and 18% of vocational students (18% of boys, 17% of girls) spend less than two hours with social media and playing games on weekdays.

20–26% D

% of children and adolescents meeting the screen time recommendation of no more than two hours a day on at least five days of the week.

 -6	 7-12	 13-15	 16-18
B- 60–66%	D 27–33%	F <20%	F <20%

03

ORGANISED SPORTS PARTICIPATION

Participation in organised physical activities and sports play a significant role in daily physical activity for a portion of Finnish children and adolescents. Organised physical activity and sports refer to sports hobbies organised by clubs, municipalities, associations, businesses or similar entities.

THE GRADE OF C+ IS BASED ON THE FOLLOWING RESULTS:

Preschool-aged children:

According to parents, 55% of 3–6-year-olds (50% of boys, 59% of girls) participate in some kind of organised physical activity.³² Parents report that 40% of 4-year-olds (36% of boys, 46% of girls) take part in organised physical activity for children on a weekly basis¹⁹. In order to make age comparisons possible, organised sports participation for preschool-aged children is monitored in studies even though it is recommended that most of the physical activity for the youngest children comes from active play and outdoor activity.

Primary school pupils:

67% of 9-year-olds (69% of boys, 65% of girls) and 71% of 11-year-olds (70% of boys, 72% of girls) participate in organised physical activity and sports²¹.

Pupils in lower secondary school:

A total of 48% of pupils in grades 8–9 (48% of boys and girls) participate in organised physical activity and sports on at least a weekly basis²². 58% of 13-year-olds (59% of boys, 57% of girls) and 44% of 15-year-olds (46% of boys, 42% of girls) participate in organised physical activity and sports in a sports club²¹.

Students:

42% of general upper secondary students (41% of boys, 43% of girls) and 25% of vocational students (27% of boys, 22% of girls) take part in organised physical activity every week²².

DOES YOUR MUNICIPALITY

- determine what kind of physical activity children and adolescents want to participate in? How are their desires taken into consideration?
- provide hobby options for children and adolescents that are free of charge or moderately priced?
- support the sports clubs that organise hobby activities for children and adolescents?
- support other organisations and associations that arrange physically active hobby activities?
- offer hobby opportunities in connection with the school day?
- act as a cooperation network among operators organising physical activity for children and youth?

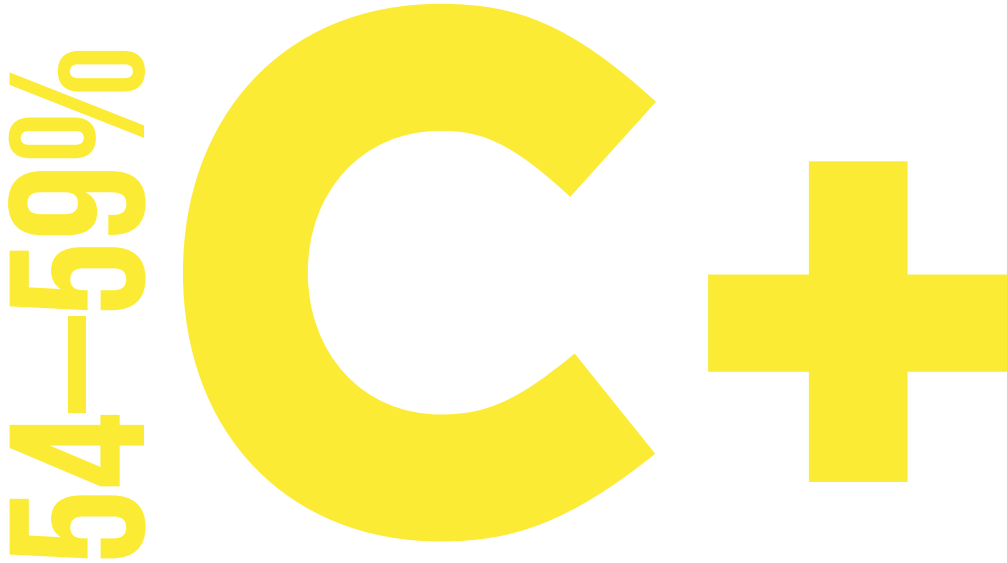
ORGANISED PHYSICAL ACTIVITY

In addition to sports clubs, organised physical activity is arranged by many other operators, such as the Finnish Scout movement, parishes and village associations, and 37% of 9-year-olds (33% of boys, 41% of girls) and 28% of 11-year-olds (31% of boys, 26% of girls) participate in these activities weekly. A total of 43% of 9-year-olds (36% of boys, 50% of girls) and 35% of 11-year-olds (25% of boys, 45% of girls) participate in physical activity provided by companies, such as horse riding schools and downhill skiing centres.²¹

Lower secondary pupils participate less in organised physical activity than primary school pupils. About 17% of 13-year-olds (19% of boys, 15% of girls) and 12% of 15-year-olds (14% of boys, 9% of girls) participate in physical activity provided by other associations. A total of 29% of 13-year-olds (22% of boys, 36% of girls) and 23% of 15-year-olds (17% of boys, 28% of girls) are involved in physical activity provided by companies in the physical activity sector.²¹

SCHOOL CLUBS

Club activities in schools facilitate low-threshold physical activity hobbies for all pupils, regardless of their backgrounds. The activities are mainly carried out after the school day. Almost half (47%) of comprehensive schools provide physical activity clubs in connection with school days³³. One-fifth of pupils aged 9–15 report participating in school physical activity clubs²¹.



% of children and adolescents that participate in organised sports activities or other organised physical activity.

 -6	 7-12	 13-15	 16-18
C 47-53%	B 67-73%	C 47-53%	D+ 34-39%

04

ACTIVE PLAY

Active play refers to uninstructed physical activity or play that can be engaged in alone or with friends or family members. Active play includes all kinds of unorganised physical activity during free time, such as cycling, skateboarding, jumping on a trampoline and jogging. This chapter examines unorganised active play outside early childhood education and school hours.

THE GRADE OF C IS BASED ON THE FOLLOWING RESULTS:

Preschool-aged children:

According to parents, 73% of 3–6-year-olds (77% of boys, 70% of girls) play outdoors on weekdays after daycare for at least 30 minutes and 37% (40% of boys, 34% of girls) play outdoors on weekends for more than two hours a day³².

Primary school pupils:

70% of 9-year-olds (70% of boys, 70% of girls) and 58% of 11-year-olds (56% of boys, 60% of girls) participate in unorganised physical activity in their free time at least four times a week²¹.

Pupils in lower secondary school:

70% of 13-year-olds (70% of boys, 70% of girls) and 58% of 15-year-olds (29 % of boys, 25 % of girls) participate in unorganised physical activity in their free time at least four times a week²¹. In the School Health Promotion study, 41% of pupils in grades 8–9 (44% of boys, 38% of girls) report that they engage in unstructured sports or physical activity nearly every day²².

Students:

40% of general upper secondary students (44% of boys, 38% of girls) and 31% of vocational students (33% of boys, 30% of girls) take part in unstructured physical activity nearly every day²².

DOES

YOUR MUNICIPALITY

- focus on opportunities for unorganised physical activity?
- support opportunities for children and adolescents to engage in active play?
- have local physical activity facilities that promote active play?
- listen to children and adolescents when planning, conceiving and developing local physical activity facilities?
- take the promotion of physical activity into account as part of community planning?

47–53%

C

% of children and adolescents engaging in unorganised physical activity in their free time at least four times a week.



-6



7-12



13-15



16-18

B

67–73%

B–

60–66%

D+

34–39%

D+

34–39%

05

ACTIVE TRANSPORTATION

Active transportation refers to commuting everyday distances with muscle power, most often on foot or by bike. Active transportation to school, hobby activities and meeting their friends form a significant portion of children and adolescents’ daily physical activity. The largest amount of research information has been accumulated regarding active school commutes. More information is needed about active transportation on other trips.

The distance between home and school affects the choice of transportation. On average, primary school pupils have shorter school commutes than lower secondary school pupils: 85% of primary school pupils and 66% of lower secondary pupils live within 5 km of their school.^{34,35}

Active transportation is less common in the winter than in spring and autumn^{34,35}. Many get a ride by car in the winter and lose the benefits of active transportation to school. Many pupils also leave their bikes at home and switch to walking. In Finland, the potential for increasing active commuting to school seems greatest in the winter.³⁵ Improving the safety of routes from home to school affect the choice of transportation methods throughout the year.

DOES YOUR MUNICIPALITY

- encourage and support active transportation to school for children and adolescents of different ages?
- build and maintain a walking and cycling route network, also with consideration to winter maintenance and lighting?
- have the dangerous parts of school commutes been surveyed and communicated to the municipality?

THE GRADE OF B+ IS BASED ON THE FOLLOWING RESULTS:

Primary school pupils:
80% of 9-year-olds (79% of boys, 81% of girls) and 83% of 11-year-olds (85% of boys, 81% of girls) actively commute to school if the distance to the school is less than 5 km³⁴.





Pupils in lower secondary school:
79% of 13-year-olds (80% of boys, 77% of girls) and 61% of 15-year-olds (59% of boys, 63% of girls) actively commute to school if the distance to the school is less than 5 km³⁴.

There is no research information about active transportation among preschool-aged children, and there is no comparable published research data available about active school commutes for upper secondary students when the distance is less than 5 km.

Use of a motorised vehicle for school commutes is common for upper secondary students, especially for boys. For example, 33% of vocational student boys and 24% of upper secondary student boys use a motorised vehicle for school commutes.³⁶



% of children and adolescents (who live less than 5 km from school) who actively commute to school, either on foot or by bike.

 -6	 7-12	 13-15	 16-18
-	A 80-86%	B- 60-66%	-

PHYSICAL ACTIVITY

CHILDREN AND ADOLESCENTS WITH DISABILITIES

Approximately 15% of children and adolescents have functional limitations related to seeing, hearing, moving or cognitive information processing that interferes with everyday activities. Girls experience disabilities more commonly than boys in all age groups.^{37,38} This chapter presents the physical activity situation for children and adolescents with disabilities. The results are based on two national datasets (LIITU 2016 and School Health Promotion 2017), which make it possible to compare same-aged children and adolescents with and without disabilities.

Regardless of gender, the most common functional limitations are remembering and learning problems throughout the school levels. Difficulties with hearing and moving are quite rare in these studies: about 1% of young people experienced difficulties with these.³⁸ A few percent of young people in all age groups have more than one type of functional limitation.³⁷

Measurement of disabilities is based on international recommendations (WG 2017), which measures disabilities through classification of functional limitations.

In the LIITU study, the children and adolescents were asked if they have at least some difficulties in seeing, hearing, speaking, moving or handling objects, breathing, or remembering things/ concentrating.³⁷

The classifications used in the School Health Promotion study were seeing, hearing and mobility as well as functions related to cognitive information processing (remembering, learning and concentration). Adolescents who perceive that they have serious difficulties in at least one of the above-mentioned functions were classified in the disability group.³⁸

OVERALL PHYSICAL ACTIVITY

Reported disabilities are connected to overall physical activity. The physical activity recommendation for children and adolescents – at least one hour of moderate-to-vigorous physical activity each day – is achieved by fewer young people with perceptions of disability. In addition, more adolescents with functional limitations were in the least active group.

ACHIEVING THE PHYSICAL ACTIVITY RECOMMENDATIONS^{39,40}

	DISABILITY	♂ BOYS	♀ GIRLS	NO DISABILITY	♂ BOYS	♀ GIRLS
11y	35%	36%	34%	41%	48%	33%
13y	22%	26%	19%	26%	32%	21%
15y	14%	21%	10%	16%	21%	13%
PUPILS IN GRADES 8–9	16%	20%	14%	20%	23%	16%
GENERAL UPPER SECONDARY STUDENTS	10%	13%	9%	14%	16%	12%
VOCATIONAL STUDENTS	12%	14%	10%	13%	14%	10%

PROPORTION OF THOSE WHO ARE LEAST ACTIVE IN THE AGE GROUP^{39,40}

	DISABILITY	♂ BOYS	♀ GIRLS	NO DISABILITY	♂ BOYS	♀ GIRLS
11y	14%	15%	13%	7%	7%	7%
13y	14%	16%	13%	10%	11%	9%
15y	26%	28%	25%	17%	15%	20%

60 min MVPA on 0-2 days/week





PUPILS IN GRADES 8–9	36%	39%	35%	21%	22%	21%
GENERAL UPPER SECONDARY STUDENTS	32%	32%	32%	22%	21%	22%
VOCATIONAL STUDENTS	50%	50%	50%	37%	36%	39%

The amount of breathtaking physical activity during free time is no more than one hour per week



SEDENTARY BEHAVIOURS ^{39, 40}

Adolescents with disabilities are less likely to stick to recommendation of two hours of daily screen time limit than those without disability. The table presents the proportion of those adolescents, who achieve the screen time recommendation on 5 days per week.





	DISABILITY	 BOYS	 GIRLS	NO DISABILITY	 BOYS	 GIRLS
11y	21%	20%	22%	28%	27%	30%
13y	10%	10%	12%	18%	16%	20%
15y	9%	5%	12%	14%	13%	15%

PUPILS IN GRADES 8-9	13%	18%	9%	16%	16%	15%
GENERAL UPPER SECONDARY STUDENTS	13%	14%	13%	16%	15%	16%
VOCATIONAL STUDENTS	15%	19%	13%	18%	18%	18%

Less than 2 h/day spent on social media or playing games





ORGANISED SPORTS PARTICIPATION ³⁹

Children and adolescents with disabilities participate less in sports club activities than children and adolescents without disabilities.

	DISABILITY	 BOYS	 GIRLS	NO DISABILITY	 BOYS	 GIRLS
11y	51%	55%	48%	57%	61%	53%
13y	44%	44%	45%	54%	52%	55%
15y	32%	29%	33%	39%	39%	40%

ACTIVE TRANSPORTATION ³⁹

Children and adolescents with disabilities actively commute (walking, cycling) to school less often than young people without disabilities (on commutes of less than 5km).

	DISABILITY	 BOYS	 GIRLS	NO DISABILITY	 BOYS	 GIRLS
11y	79%	77%	81%	83%	86%	81%
13y	72%	79%	69%	80%	82%	79%
15y	57%	57%	57%	62%	60%	65%

DOES
YOUR MUNICIPALITY

- offer assistive devices for physical activity to those who require special support?
- support physical activity for children and adolescents who require special support (for example, transport services, assistive devices)?
- take children and adolescents with disabilities into consideration when planning the construction and renovation of early childhood education units, schools and education institutes?
- take into account children and adolescents with disabilities and those who require support in taking part in hobby activities?
- take into account accessibility for children and adolescents with disabilities, for example, visual or physical impairments?

MEASUREMENTS OF PHYSICAL ATTRIBUTES IN WELL-BEING MONITORING

Researchers on a global scale are concerned about the deterioration of physical fitness and the increased incidence of overweight and obesity in children and adolescents. In particular, the aerobic fitness of children and adolescents has significantly decreased over the past 30 years.⁴¹

The following section examines these themes in more detail. Finland's Report Card has focused on these themes because physical activity is linked to physical functional capacity and body weight.

Finnish comprehensive schools have implemented Move!, a system for monitoring physical functional capacity that provides comparable information and regional results every year⁴². Development of the weight and height of children and adolescents is monitored as part of healthcare, so this information is also available. Monitoring the situation in terms of the physical functional capacity, height and weight of children and adolescents provides information about the well-being of children and youth, which can be influenced by physical activity.

DOES YOUR MUNICIPALITY

- process the Move! results as part of health examinations for schoolchildren?
- utilise the results of Move! measurements when monitoring the well-being of children and adolescents at the municipal level?
- support children and adolescents whose functional capacity is weak?
- monitor the development of overweight and obesity in children and adolescents at the municipal level and utilise this information?
- offer children, adolescents and their families support for preventing excessive weight gain?



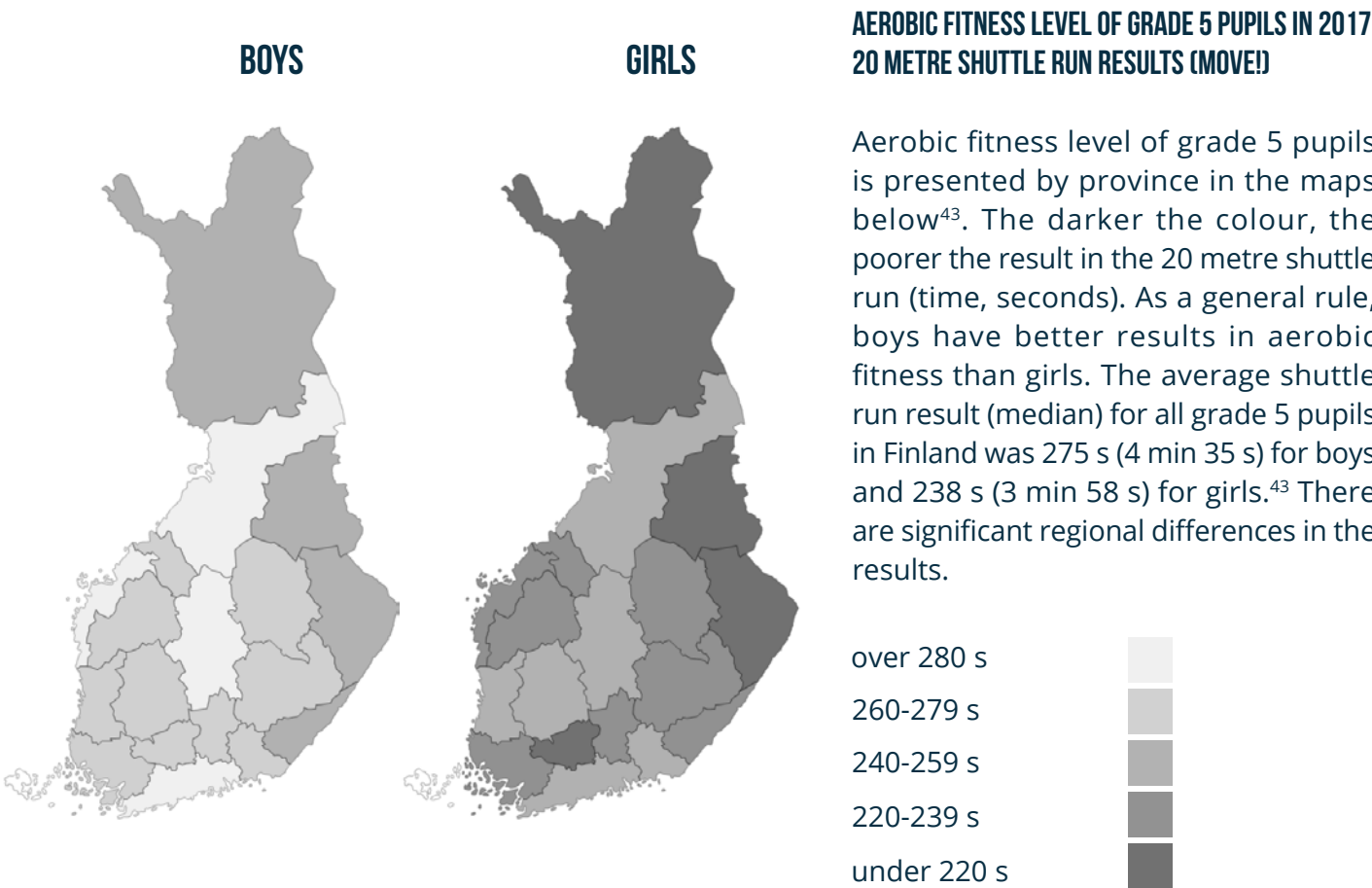
MONITORING OF PHYSICAL FUNCTIONAL CAPACITY
WITH MOVE! MEASUREMENTS

Physical functional capacity refers to the body's functional ability to perform tasks that require physical effort and the targets set for it. It is a person's ability to move using their own muscle power, do hobbies and handle everyday routines. Physical functional capacity affects everyday well-being and health.

Finnish schools have been using the Move! monitoring system for physical functional capacity since 2016. It is a national physical functional capacity data collection and feedback system intended for students in grades 5 and 8 that is combined with student health examinations.⁴² The results of the Move! measurements are also available by region and the municipalities can utilise them as indicators of well-being for children and adolescents.

The Move! measurement sections are a 20 metre shuttle run, 5-leaps test, push-up, curl-up, flexibility measurements and a throw-catch combination. The sections measure the student's endurance, strength, speed, mobility, balance, and fundamental movement skills.

Aerobic fitness or endurance is one of the areas of physical functional capacity. There is a lot of research data available on the different effects that aerobic fitness has on health. The Move! measurements produce information about the endurance of children and adolescents, which is measured by the 20 metre shuttle run.



MONITORING OF WEIGHT AND HEIGHT INFORMATION

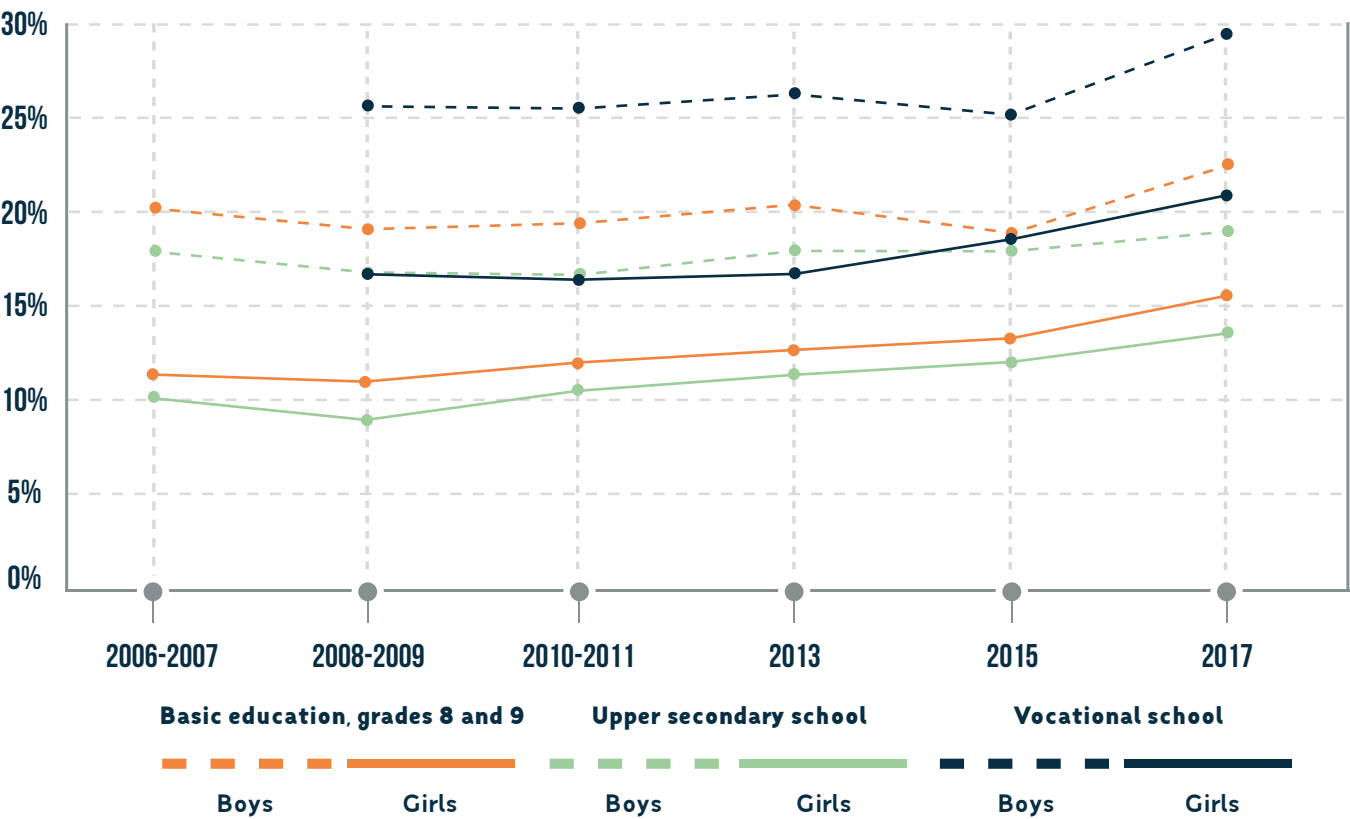
The development of the body weight and height of children and adolescents is monitored in healthcare. These measurements can be utilised as indicators of well-being for children and adolescents. It should be noted that being underweight and overweight are both harmful in terms of health.

Overweight among children and adolescents has significantly increased in Finland over the past decades^{44,45}. Early intervention to prevent excessive weight gain is easier than treating obesity, so the support that children, adolescents and families receive in preventing obesity is very important. Healthy nutrition and sufficient and regular physical activity are key elements in preventing excessive weight gain.⁴⁶

The height and weight information measured for children and adolescents in child clinics and school healthcare is collected from Finnish municipalities into the national Avohilmo register. Based on this information, approximately 25% of 2–16-year-old boys and 16% of girls were overweight.⁴⁷

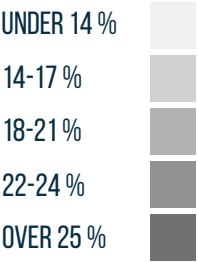
In surveys, overweight was estimated on the basis of self-reports of weight and height. A total of 22% of boys and 16% of girls in grades 8–9 were overweight. In terms of upper secondary students, overweight was more common among vocational students than upper secondary students. The proportion of overweight children and adolescents has increased over the past 10 years.²²

PROPORTIONS OF OVERWEIGHT GIRLS AND BOYS OF DIFFERENT AGES ^{22, 48}

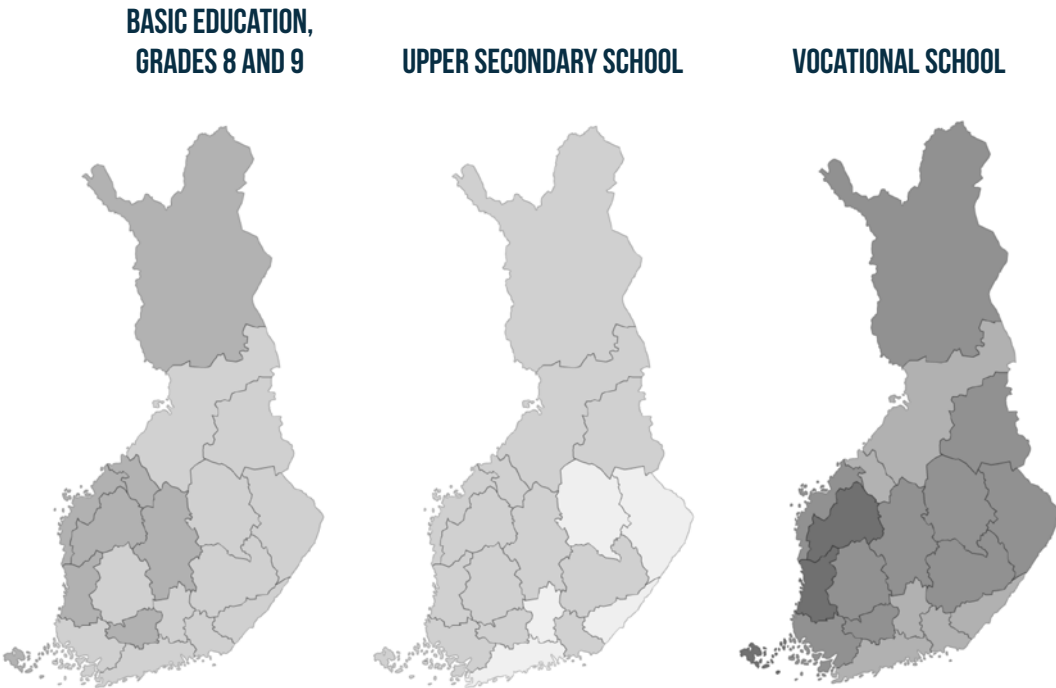


OVERWEIGHT AMONG ADOLESCENTS HAS INCREASED

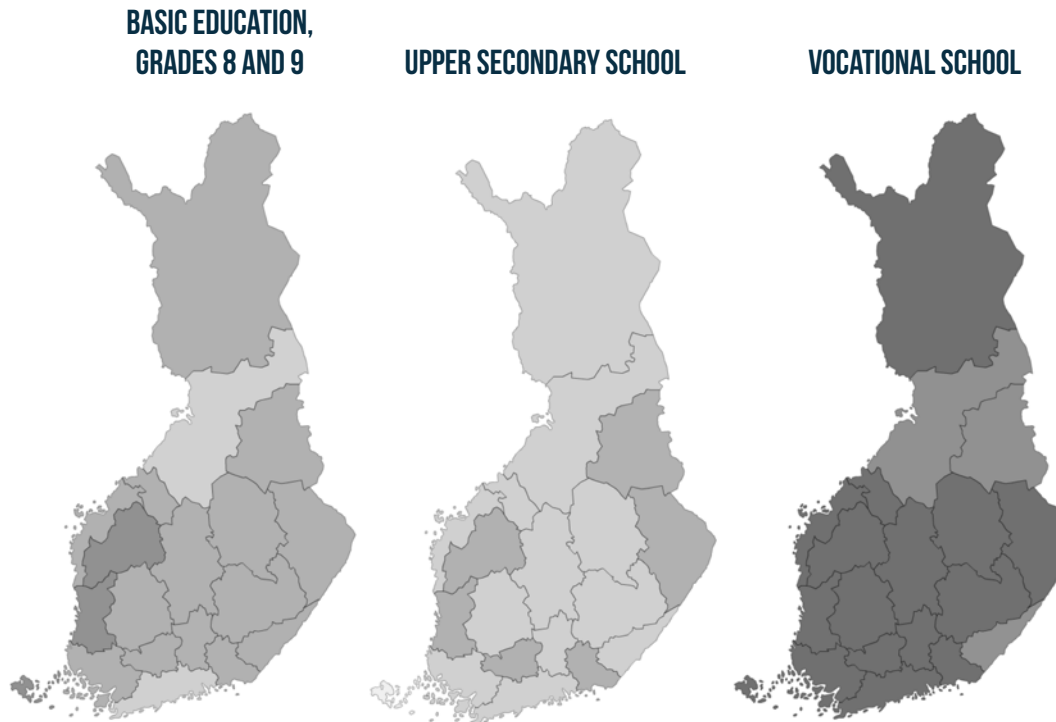
Proportions of overweight students of different age is presented by level of education and by province in 2013 and 2017 in the maps below²². The darker the colour, the bigger the proportion of overweight students.



PROPORTIONS OF OVERWEIGHT ADOLESCENTS IN 2013



PROPORTIONS OF OVERWEIGHT ADOLESCENTS IN 2017



06

FAMILY AND PEERS

The significance of the family as a physical activity supporter is greatest among small children, and with age, the significance of friends increases. The parents’ roles are to set an example, encourage and facilitate their children’s physical activity. The ways friends spend their free time affects the physical activity of young people. Peer support could be utilised more in promoting adolescents’ physical activity.

The grade of B- (60–66%) is based on the following results from the 2016 LIITU study⁴⁹. In the study, 9–15-year-olds have assessed their own situation. Parental encouragement for physical activity is most common: 80% of basic education pupils receive encouragement from their parents. Nearly as many (79%) parents contribute financially to their children’s physical activity costs and 64% of the respondents get a ride from their parents to venues of physical activity. A little over one-third (38%) of basic education pupils are physically active with their parents and 43% of pupils are physically active with their peers.

More than half of parents (55 %, boys and girls) of preschool-aged children (3–6-year-olds) are active with their child at least three times a week and a little under one-fifth (19% of boys’ parents, 15% of girls’ parents) are active with their children every day.³² According to another survey, 44% of 3–6-year-olds are physically active with their parents at least once a week⁵⁰.

DOES

YOUR MUNICIPALITY

- support physical activity for children, adolescents and parents together?
- make facilities and locations available for adolescents to engage in unorganised physical activity?
- utilise peer support in promoting physical activity for youth?



60–66%
B-

% of school-aged children and youth with family members or peers who encourage and support them to be physically active or are active with them.

A	B	C	D	F
81–100%	61–80%	41–60%	21–40%	0–20%

EDUCATIONAL INSTITUTES FACILITATING PHYSICAL ACTIVITY

In Finland, children and adolescents spend the majority of their day in early childhood education, basic education and, after completion of comprehensive school, in upper secondary school. The operational culture at these education institutes affects the physical activity of children and youth. At the same time, they learn an active – or passive – lifestyle, which also influences well-being later in adulthood.

These educational institutes play an important role in facilitating physical activity. Studies have shown that physical activity also promotes learning, participation and contentedness.

Since 2010, Finland has been building an internationally exceptional concept called Finnish Schools on the Move, which supports educational institutions in developing a more physically active operational culture. Early childhood education units, comprehensive schools and institutions can register in their own individual programmes and receive support for developing their operational culture and the well-being of children and youth.

DOES YOUR MUNICIPALITY

- build physical activity facilities in conjunction with daycare centres, schools and institutions?
- utilise information from the Self-Evaluation Surveys of early childhood education, basic education and upper secondary institutions at the municipal level, for example, as part of the well-being report?
- do cross-administrative cooperation to promote physical activity for children and adolescents?
- take the opportunity for diverse work in facilities and furnishing when building and renovating daycare centres, schools and institutions?



07 EARLY CHILDHOOD EDUCATION

Municipalities are responsible for early childhood education in Finland. Around 68% of children aged 1–6 are in early childhood education⁵¹. There are large differences in participation in early childhood education according to age. A total of 28% of 1-year-olds, 54% of 2-year-olds and 78% of 5-year-olds are in daycare. Physical activity and learning motor skills in early childhood education improve children’s ability to learn new things and skills.

The grade of C+ (50–59%) is based on the proportion of early childhood education units registered in the national Joy in Motion programme (1,667; approximately 56%) by May 2018⁵². The Joy in Motion programme aims at providing every child with a daily opportunity for physical activity and joy in motion in an active operational culture.

IN MUNICIPALITIES, PROMOTION OF PHYSICAL ACTIVITY IN EARLY CHILDHOOD EDUCATION HAS BEEN ASSESSED AS FOLLOWS:⁵⁴

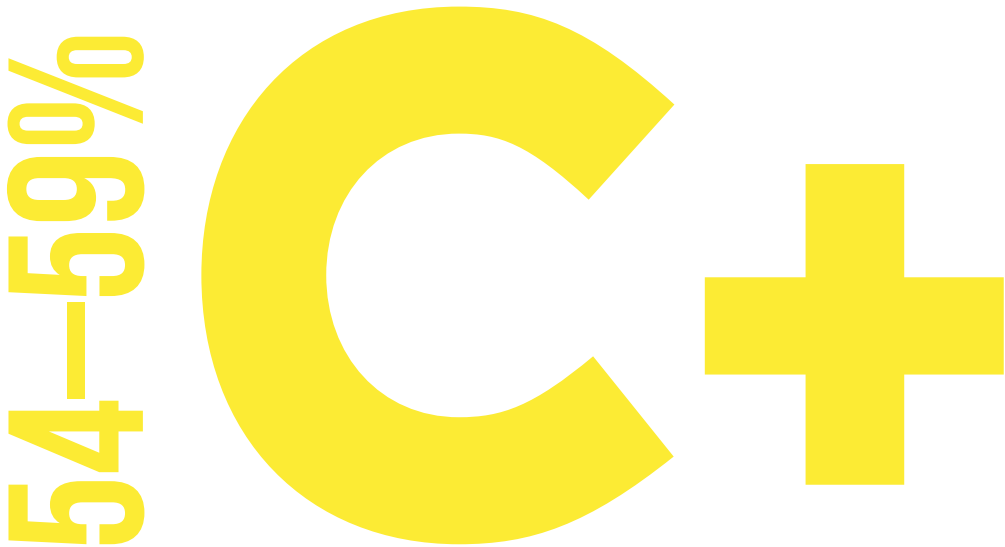
- 93% of municipalities have included operating methods that promote physical activity to the municipal early childhood education plan.
- 82% of municipalities have arranged continuing education to increase the early childhood education personnel’s awareness of the links between physical activity and well-being.
- 72% of municipalities have developed the conditions for indoor physical activity in early childhood education environments.
- 85% of municipalities have developed the conditions for outdoor physical activity in early childhood education environments.

DOES YOUR MUNICIPALITY

- register its early childhood education units with the Joy in Motion programme? Has the early childhood education management in your municipality registered for the programme?
- take physical activity and well-being into consideration in the early childhood education and care plans for children?
- support the participation of early childhood educators in continuing education related to physical activity?
- provide physical activity conditions for early childhood education units: Does every daycare centre have its own indoor physical activity space and a large yard area with different types of terrain and flat areas for play? Is there a forest area in the vicinity of every early childhood education unit?
- allocate funds for swimming lessons in early childhood education and the replacement of physical activity equipment?

Diverse and sufficient daily physical activity and reducing sitting is included in the principles of the national core curriculum for early childhood education and care⁵³, which is supplemented by the recommendations for physical activity in early childhood³. The local plans compiled on the basis of national principles take into account the fact that physical activity is a natural part of the early childhood education operational culture and everyday pedagogy.

Studies indicate that daycare days tend to be physically quite passive. According to a study based on observations made by preschool personnel, children aged 3–6 spend 10% of their daycare days (from 8 am to 4 pm) engaged in moderate-to-vigorous physical activity, amounting to approximately 48 minutes a day⁵⁵. Among these children, up to 60% of each daycare day consists of physically passive activities, such as sitting, using a pencil and eating. One-fifth (20%) of the day consists of free play in-doors, and another fifth (21%) comprises free play outdoors, a large portion of which does not include physical activity.



% of early childhood education units participating in the national Joy in Motion programme.

A	B	C	D	F
81–100%	61–80%	41–60%	21–40%	0–20%

08

BASIC EDUCATION

School plays a major role in children and adolescents' physical activity. Children and adolescents accumulate 34% of all their daily physical activity of at least moderate intensity and 47% of all their sedentary time during a school day. The majority of a school day is spent sedentarily; primary and lower secondary school pupils respectively accumulate 39 and 46 minutes of sedentary time per 60 minutes.²⁵ Physical activity can be added into the school day, particularly with physical education (PE) lessons, recess times and depending on the teaching methods, active lessons. Physical activity during the school day is most important for the least active pupils²⁵.

The grade of A (87-93%) is based on the proportion of schools registered in the national Schools on the Move programme (2,096; 88%) by May 2018⁵⁶. The fact that basic education reaches schools reach the entire age group emphasises the school's role in promoting physical activity for children and adolescents.

PE LESSONS

The purpose of PE lessons is to influence pupils' well-being by supporting their physical, social and psychological functional capacity and a positive attitude towards their own bodies. PE lessons aim to offer positive experiences and support physically active lifestyle.⁵⁷ Pupils aged 13-15 consider it important for PE lessons to have a good atmosphere and be fun and a teacher who is fair and encouraging²¹.

In basic education, pupils have on average 100 minutes of compulsory PE a week. However, it is often possible to take elective PE lessons. On an international scale, the amount of PE lessons is not particularly high in Finland. A total of 96% of PE teachers in lower secondary schools are qualified to perform their tasks, while there is no exact information regarding the qualification of the PE teachers in primary schools⁵⁸.

AN ACTIVE OPERATIONAL CULTURE IN THE SCHOOL

According to research, a physically active operational culture in basic education has developed positively in 2010s ^{59,60}. Enabling physical activity for pupils during the school day is more strongly visible in school and municipal curricula and in municipal strategies⁶⁰. More than 80% of schools consider their schoolyard to be a stimulating site for physical activity that is also used outside the school day. Nearly as many schools also use indoor physical activity facilities outside of PE lessons during the school day. Two-thirds of schools have implemented long recesses for physical activity.⁶¹ The operational culture during lessons has become more active in all types of schools, which can be seen as an increase in active learning and modification of learning environments to support activity. Lower secondary schools have more actions targeting the least active students. There is more cooperation with the school nurse.⁶⁰

Primary school pupils spend nearly all their recesses outdoors and are clearly more active than lower secondary pupils during recess. Boys are physically more active during recess than girls in all grades. Sitting during recess is more common in lower secondary school than in primary school. Only about one fourth of lower secondary pupils has participated in planning recess activities while primary school pupils are more active participants in the planning.^{62,22}



SCHOOLS ON THE MOVE

DOES YOUR MUNICIPALITY

- support schools in the acquisition of physical activity facilities and equipment and when planning and implementing schoolyards?
- support physical activity via the local curriculum and distribution of lesson hours?
- support teachers in relation to continuing education in the areas of physical activity and active learning?
- increase pupil participation when planning and organising activities?
- cooperate with local operators (sport clubs, associations, etc.) to promote physical activity for schoolchildren?



% of schools participating in the national Finnish Schools on the Move programme

A

81-100%

B

61-80%

C

41-60%

D

21-40%

F

0-20%

UPPER SECONDARY AND VOCATIONAL EDUCATION

Conditions to promote physical activity can also be increased in upper secondary and vocational schools, such as utilising physical activity facilities outside learning situations and offering equipment that encourages activity. Additional movement can be added to the study day with, for example, breaks in sedentary behaviours, active teaching methods, students' peer activity (such as physical activity tutoring) and encouraging active school commutes.

The grade of D- (20–26%) is based on the proportion of upper secondary institutions registered in the national Students on the Move programme (121; 23%) in May 2018⁶³. Students on the Move activities refer to developing the institution's operational culture in a way that supports physical activity and capacity to study. Students on the Move is a part of the Schools on the Move programme entity, and trials in upper secondary institutions began in 2017.



DOES YOUR MUNICIPALITY

- have institutes registered in the Students on the Move programme?
- promote cooperation between different municipal sectors and educational institutions?
- promote active transportation methods when commuting to school?
- offer sports and physical activity services to students?
- take upper secondary students into consideration in the municipality's well-being report?
- plan and implement actions and monitoring to promote the physical activity of students?

GENERAL UPPER SECONDARY EDUCATION

Under the principles of the National Core Curriculum for General Upper Secondary Schools (2015), students must be encouraged towards a physically active lifestyle that promotes health, well-being and learning. All students in general upper secondary school have two compulsory PE courses and the national core curriculum specifies three courses of specialisation studies to be offered to students as electives.⁶⁴ Some 96% of PE teachers are qualified⁶⁵.

Students have a lot of sedentary time during the study day. Less than one in ten general upper secondary school (7%) have listed practices to reduce sitting and increase physical activity⁶⁶.

The majority of students (80%) would like to be more active and feel that physical activity supports their studies (70%). The students want the conditions at general upper secondary school to be developed in a way that increases physical activity and to have the opportunity to use physical activity facilities during the study day.²³

The students don't consider their own possibilities to influence the planning and implementation of recesses or breaks to be very good: only 27% of general upper secondary students (32% of boys, 24% of girls) believe that their possibilities to influence are good²².

VOCATIONAL EDUCATION

In vocational education, physical activity is part of the obligatory units from the perspective of maintaining work ability and well-being. There is very little compulsory PE in vocational education. Depending on the institution and subfield of vocational education and training, there is a lot of variation in terms of the elective PE offering. Some 97% of PE teachers are qualified⁶⁷.

Vocational students also spend a lot of time sitting during the study day. However, the amount of sitting varies by the field of study. A total of 12% of vocational schools have listed practices to reduce sitting and increase physical activity⁶⁸.

73% of vocational students would like to be more active. More than half (62%) feel that physical activity supports their studies. Some 70% would like to see the institution offer alternative ways of sitting and develop conditions at the institution in a way that increases physical activity.⁶⁹

Vocational students perceive their possibilities to influence the planning and implementation of recesses or breaks as being clearly better than general upper secondary students. 60% of vocational students (boys and girls) assessed their possibilities to influence as good.²²



% of institutions participating in the national Students on the Move programme.

A

81-100%

B

61-80%

C

41-60%

D

21-40%

F

0-20%

10 COMMUNITY AND THE BUILT ENVIRONMENT

Municipalities’ decisions play a significant role in facilitating physical activity for children and adolescents. Among other things, municipalities organise sports and physical activity services, support civic work, provide free sports facilities, build local sports facilities and maintain non-motorised traffic routes. Municipalities’ responsibility for promoting physical activity is based on the Act on the Promotion of Sports and Physical Activity (390/2015, Section 5)⁷⁰.

The grade of B+ (74-79 %) is based on the following results: municipalities that have covered physical activity promotion in their strategy (86% of municipalities); municipalities that have specified targets (86%) and resources (83%) for the physical activity of children and adolescents; municipalities where school facilities (63%) and sports grounds and ball fields (77%) are provided free for practice sessions for children and adolescents⁵⁴.

The greatest strengths of municipalities when promoting physical activity are modern basic sports and physical activity facilities and diverse physical activity environments. Municipalities perceive the key challenges in terms of promoting physical activity to be committing the municipal administration to long-term development of physical activity, poor organisation of cooperation between different sectors, and deficiencies in financial and human resources and monitoring the quality of activities.⁷¹

In recent years, actions to promote physical activity during the school day, coordination of

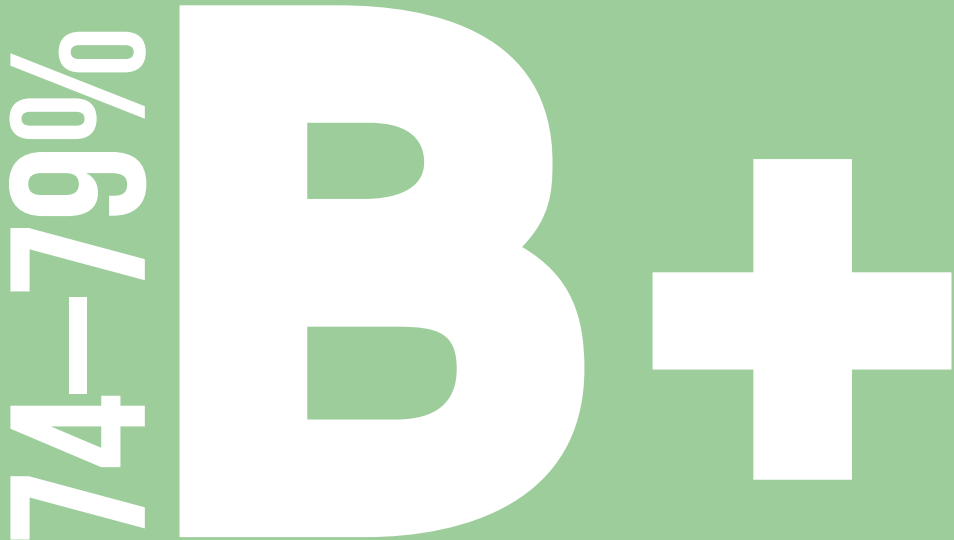
physical activity that promotes health and well-being, and cross-disciplinary work groups to address the promotion of physical activity have become more common in municipalities. The promotion of walking and cycling is more visible in municipal strategy planning: approximately one in five municipalities has a strategy linked to this target. Physical activity continues to be a small part of municipal operations and there are significant differences in the promotion of physical activity depending on the municipality.⁷²

Finland has 37,000 built physical activity facilities⁷³, with approximately 75% owned, maintained and managed by municipalities. Natural environments also provide opportunities for wide-ranging physical activity for the whole population. During the 2010s, municipalities have increased construction, development and general planning of local physical activity facilities. Finland has 785 local physical activity facilities. There is a lot of room for improvement in terms of accessibility in municipal physical activity facilities.⁷²

The reform of country government will change the municipalities’ tasks with regard to social services and health care. The municipalities will continue to be responsible for physical activity services and promoting the well-being of municipal residents. Cooperation and coordination between municipal administrations will require a new kind of organisation in the municipalities.

DOES YOUR MUNICIPALITY

- take the promotion of physical activity for children and adolescents into consideration in the municipal strategy and well-being report?
- arrange cooperation between municipal administrations to promote physical activity and healthy lifestyles (clinics, nutrition services, health care, education, youth services, etc.)?
- monitor physical activity of children and adolescents? How is this information utilised in decision-making?
- hear the opinions of children and adolescents during the planning and development of physical activity services?
- allow children and youth to use school gyms, sports and ball fields and other physical activity facilities at no cost during their free time?
- build and maintain children’s playgrounds and local parks, swimming beaches, green areas, outdoor fields, outdoor recreation and hiking areas, winter sport facilities (skating rinks, hills, sledding and snowmobiling routes) and swimming pools?
- organise and allocate resources to promote physical activity for children and adolescents at the municipal level?



% of municipalities that have covered the promotion of physical activity in the municipal strategy and support physical activity for children and youth in particular.	A 81-100%	B 61-80%	C 41-60%	D 21-40%	F 0-20%
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11

GOVERNMENT STRATEGIES AND INVESTMENTS

According to the Act on the Promotion of Sports and Physical Activity (390/2015)⁷⁰ the key objectives include promoting physical activity opportunities for different population groups and fostering citizens’ well-being and health, as well as the growth and development of children. The efforts to achieve these objectives are based on equality, non-discrimination, social inclusion, multiculturalism, healthy lifestyle, respect for the environment and sustainable development.

The grade of A- (80-86%) is based on the fact that in Finland physical activity for children and adolescents is a strategic priority in the sports and physical activity policy. Additionally, the state funds national programmes for promoting physical activity among children and adolescents.

The Ministry of Education and Culture is responsible for the general management, coordination and development of the sports policy. The state budget in 2018 for enhancing physical activity and sports was €159 million. Children’s physical activity has been a priority of the government’s sports policy for a long time.

The government has numerous subsidies, the majority of which target physical activity for children and adolescents. The state budget in 2018 were:

- Development subsidy for club activities 4.0 M€
- Support for a physically active lifestyle nationally 1.37 M€ and locally 2.43 M€
- Promotion of physical activity for immigrants 1.5 M€.

The Finnish Schools on the Move programme to promote more active and enjoyable school days has been one of the government’s key projects in 2016–2018. As a result, municipalities and other education providers have been able to apply for subsidies to make school days more active and for trial projects in upper secondary education. A total of 21 million euros was budgeted for municipalities.

The role of physical activity in the growth and development of children and adolescents of different ages has been more clearly taken into consideration in the national core curriculum for early childhood education (2016) and in the national core curriculum for basic education. The Move! physical functional capacity monitoring system has been implemented in Finnish schools as part of the national core curriculum for basic education⁴². All pupils in grades 5 and 8 take part in monitoring their physical functional capacity, and the results can be utilised in PE teaching and school health services to support the pupils’ well-being.

The national Finnish Schools on the Move programme entity (Joy in Motion, Finnish Schools on the Move, and Students on the Move) supports promotion of physical activity for children and adolescents in early childhood education, basic education and upper secondary education. By increasing movement and reducing sitting, the aim is to create a more active operational culture in different communities that can support the growth, development and learning of children and youth.



DOES YOUR MUNICIPALITY

- Apply for state subsidies or other funding to increase the activity of children and adolescents?



The government creates conditions for realising the goals set in its sports and physical activity policy by providing resources for physical activity services for children and adolescents.

A

81-100%

B

61-80%

C

41-60%

D

21-40%

F

0-20%

WORK GROUP

FINLAND'S REPORT CARD 2018 – PHYSICAL ACTIVITY FOR CHILDREN AND YOUTH

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DATA UTILISED IN THE FINLAND’S REPORT CARD 2018

RESEARCH CONDUCTED BY)	RESEARCH YEAR (REFERENCE)	METHOD	PARTICIPANTS	NUMBER OF RESPONDENTS OR PARTICIPANTS (N)
DAGIS (Increased health and well-being in preschools) (Folkhälsan)	2014-2018 (31,50)	Accelometer measurement	Children aged 3-6	773
Promotion of health and welfare in comprehensive schools - TEAvisari 2017 (THL)	AUTUMN 2017 (61)	Data collection	Headmasters of comprehensive schools in collaboration with a student welfare group	2 072 88% of comprehen-sive schools
STEPS study (Turku Institute for Child and Youth Research)	2013-2014 (17)		Children aged 5-6	140
School Health Promotion study (THL)	SPRING 2017 (22)	Accelometer measurement	Comprehensive school pupils, grades 4 and 5	95 725
			Comprehensive school pupils, grades 8 and 9	73 680
			Upper secondary school students, grades 1–2 (also including those over the age of 18)	34 961
		Survey	Vocational school students, grades 1–2 (also including those over the age of 18)	31 188
LIITU study (University of Jyväskylä)	2016 (20)	Accelometer measurement	Pupils aged 9, 11, 13 and 15	3 274
	2016 (74)	Survey	Pupils aged 9, 11, 13 and 15	7 565
	2018 (21)	Survey	Pupils aged 7, 9, 11, 13 and 15	6 980
Children’s health, well-being and services study(THL)	2018,interim results for (19) 1.2-31.5.2018	Survey	Parents of children aged 4	3 773
Monitoring and research related to Finnish Schools on the Move programme (LIKES)	2015-2018 (33)	Self-Evaluation Survey for schools	Comprehensive schools	1 705
Physical activity in municipal operations – TEAvisari 2018 (THL)	SPRING 2018 (54)	Data collection	Management responsible for sports/physical activity services in municipalities	278 94% of municipalities in continental Finland
Move! measurements (Finnish National Agency for Education, Ministry of Education and Culture, National Sports Council)	2017 (43)	Physical functional capacity measurements	Pupils, grades 5 and 8	48 715
Physical activity, functional capacity and well-being of students (LIKES)	2017 (23)	Accelometer measurement	Upper secondary school students	178
Orientation project (University of Helsinki)	2015 (55)	Observations made by preschool personnel	Children aged 3-6	2 889 In 13 municipalities in Southern Finland
Taitavat tenavat (University of Jyväskylä)	2016 (32)	Survey	Parents of children aged 3-6 in daycare	684 In 13 municipalities in different parts of Finland
Health Behaviour in School-aged Children (HBSC) Study (University of Jyväskylä)	2002, 2006, 2010, 2014 (28)	Survey	Students aged 11, 13 and 15	4 713–6 564

REFERENCES

¹ Finnish Report Card 2014 on physical activity for children and youth.

² Finland’s Report Card 2016 on physical activity for children and youth. LIKES Research Reports on Physical Activity and Health 318.

³ Ministry of Education and Culture 2016. Joy, play and doing together – Recommendations for physical activity in early childhood. Publications of the Ministry of Education and Culture, Finland 2016:21.

⁴ Ministry of Education and Culture 2016. Scientific justification for the recommendations for physical activity in early childhood 2016. Publications of the Ministry of Education and Culture, Finland 2016:22. [Finnish report, abstract in English.]

⁵ Ministry of Education and Young Finland Association 2008. Recommendations for the physical activity of school-aged children. [Finnish report, abstract in English.]

⁶ Reduce sedentary time – get healthier! National recommendations to reduce sedentary time. Brochures of the Ministry of Social Affairs and Health 2015.

⁷ World Health Organization 2010. Global recommendations on physical activity for health. Referenced on 21.8.2018 www.who.int/dietphysicalactivity/publications/9789241599979/en/

⁸ Working group appointed by the Finnish Medical Society Duodecim and the Executive Board of Current Care. 2015. Physical activity and exercise training for adults in sickness and in health. [in Finnish] Helsinki: Finnish Medical Society Duodecim, 2015. www.käypähoito.fi

⁹ 2018 Physical Activity Guidelines Advisory Committee. 2018 Physical Activity Guidelines Advisory Committee Scientific Report. Washington, DC: U.S. Department of Health and Human Services, 2018.

¹⁰ Biddle, S.J.H. & Asare, M. 2011. Physical activity and mental health in children and adolescents: a review of reviews. British Journal of Sports Medicine 45(11), 886–895.

¹¹ Donnelly, J.E., Hillman, C.H., Castelli, D., Etnier, J.L., Lee, S., Tomporowski, P., Lambourne, K. & Szabo-Reed, A.N. 2016. Physical activity, fitness, cognitive function, and academic achievement in children: A systematic review. Medicine & Science in Sports & Exercise 48(6), 1197–1222.

¹² Janssen, I. & LeBlanc, A.G. 2010. Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. International Journal of Behavioral Nutrition and Physical Activity 7(1), 40.

¹³ Kantomaa, M., Syväoja, H., Sneck, S., Jaakkola, T., Pyhältö, K. & Tammelin, T. 2018. Physical activity and learning during the school day. A situational review January 2018. Reports and surveys 2018:1. Finnish National Agency for Education.

¹⁴ Poitras, V.J., Gray, C.E., Borghese, M.M., Carson, V., Chaput, J.P., Janssen, I., Katzmarzyk, P.T., Pate, R.R., Connor Gorber, S., Kho, M.E., Sampson, M. & Tremblay, M.S. 2016. Systematic review of the relationships between objectively measured physical activity and health indicators in school-aged children and youth. Applied Physiology, Nutrition and Metabolism 41(6), S197–S239.

¹⁵ Finland, a land of solutions. 2015. Strategic Programme of Prime Minister Juha Sipilä’s Government 29.5.2015.

¹⁶ Määttä, S. 2018. Results of the DAGIS (Increased Health and Wellbeing in Preschools) study 2018. Unpublished information.

¹⁷ Matarma, T., Tammelin, T., Kulmala, J., Koski, P., Hurme, S. & Lagström, H. 2016. Factors associated with objectively measured physical activity and sedentary time of 5–6-year-old children in the STEPS Study. Early Child Development and Care 187(12), 1863–1873.

¹⁸ Kyhälä, A.-L., Reunamo, J. & Ruismäki, H. 2018. Preschool children are more physically active and less sedentary on weekdays compared with weekends. Journal of Early Childhood Education Research 7(1), 100–126.

¹⁹ Vuorenmaa, M., Klemetti, R., Rajala, R. & Hedman, L. 2018. Children’s health, well-being and services (LTH) study. Data collection from parents of children aged 4, interim results from 1.2.–31.5.2018. National Institute for Health and Welfare. <https://thl.fi/>

²⁰ Husu, P., Jussila, A.-M., Tokola, K., Vähä-Ypyä, H. & Vasankari, T. 2016. Objektiivisesti mitattu paikallaanolo ja liikkuminen. [in Finnish] In S. Kokko & A. Mehtälä (eds.) The Physical Activity Behaviours of Children and Adolescents in Finland. Results of the LIITU study, 2016. Publications of the National Sports Council 2016:4, 16–22.

²¹ Kokko, S. 2018. Preliminary results of the LIITU study, 2018. Unpublished information.

²² National Institute for Health and Welfare THL 2017. Results of School Health Promotion Study. www.thl.fi/fi/web/lapset-nuoret-ja-perheet/tutkimustuloksia

²³ Siekkinen, K., Hakonen, H., Kulmala, J. & Tammelin, T. 2018. More activity to support studies. Results related to upper secondary school students’ physical activity and thoughts about increasing physical activity. [in Finnish] LIKES Research Centre for Physical Activity and Health.

²⁴ Soini, A. 2015. Always on the move? Measured physical activity of 3-year-old preschool children. Studies in Sport, Physical Education and Health 216. University of Jyväskylä.

²⁵ Tammelin, T., Kulmala, J., Hakonen, H. & Kallio, J. 2015. School makes you move and sit still. Finnish Schools on the Move research results 2010 to 2015. LIKES Research Centre for Physical Activity and Health.

²⁶ Kantomaa, M.T., Tikanmäki, M., Kankaanpää, A., Väärämäki, M., Sipola-Leppänen, M., Ekelund, U., Hakonen, H., Järvelin, M.R., Kajantie, E. & Tammelin, T.H. 2016. Accelerometer-measured physical activity and sedentary time differ according to education level in young adults. PLoS One 12(7), e0158902.

²⁷ Siekkinen, K. 2016. Personal trainer -toimintamalli Liikkuvassa koulussa. [in Finnish] LIKES Research Centre for Physical Activity and Health.

²⁸ Tynjälä, J. 2018. Health Behaviour in School-aged Children (HBSC) study 2002–2014. Unpublished information.

²⁹ Kokko, S., Mehtälä, A., Villberg, J., Ng, K. & Hämylä, R. 2016. Itsearvioitu liikunta-aktiivisuus, istuminen ja ruutu aika sekä liikkumisen seurantalaitteet ja sovellukset. [in Finnish] In S. Kokko & A. Mehtälä (eds.) The Physical Activity Behaviours of Children and Adolescents in Finland. Results of the LIITU study, 2016. Publications of the National Sports Council 2016:4, 10-15.

³⁰ Kokko, S. 2018. Results of the LIITU study, 2016. Unpublished information.

³¹ Määttä, S., Kaukonen, R., Vepsäläinen, H., Lehto, E., Ylönen, A., Ray, C., Erkkola, M. & Roos, E. 2017. The mediating role of the home environment in relation to parental educational level and preschool children’s screen time: a cross-sectional study. BMC Public Health 17, 688.

³² Sääkslahti, A. 2018. Results of the Taitavat tenavat study 2016. Unpublished information.

³³ LIKES Research Centre for Physical Activity and Health 2018. Finnish Schools on the Move Self-Evaluation Survey.

³⁴ Kallio, J., Hakonen, H., Kämppi, K. & Tammelin, T. 2016. Koulupäivän aikainen liikunta. Koulumatkaliikunta. [in Finnish] In S. Kokko & A. Mehtälä (eds.) The Physical Activity Behaviours of Children and Adolescents in Finland. Results of the LIITU study, 2016. Publications of the National Sports Council 2016:4, 16-22.

³⁵ Kallio, J., Turpeinen, S., Hakonen, H. & Tammelin, T. 2016. Active commuting to school in Finland, the potential for physical activity increase in different seasons. International Journal of Circumpolar Health 75, 33319.

³⁶ Turpeinen, S. & Hakamäki, M. 2018. Sport and equality: An overview of the current status of gender equality in sports and physical activity. Publications of the Ministry of Education and Culture 2018:6.

³⁷ Ng, K.W., Rintala, P. & Saari, A. 2016. Toimintakyvyn ja -rajoitteiden yhteydet liikunta-aktiivisuuteen ja paikallaanoloon. [in Finnish] In S. Kokko & A. Mehtälä (eds.) The Physical Activity Behaviours of Children and Adolescents in Finland. Results of the LIITU study, 2016. Publications of the National Sports Council 2016:4, 73-78.

³⁸ Kanste, O., Sainio, P., Halme, N. & Nurmi-Koikkalainen, P. 2017. Toimintarajoitteisten nuorten hyvinvointi ja avun saaminen – Toteutuuko yhdenvertaisuus? Kouluterveyskyselyn tuloksia. [in Finnish] Tutkimuksesta tiiviisti 24. National Institute for Health and Welfare.

³⁹ Ng, K.W. 2018. Results of the LIITU study, 2016. Unpublished information.

⁴⁰ Halme, N. 2018. Results of the School Health Promotion study, 2017. Unpublished information.

⁴¹ Tomkinson, G.R., Lang, J.J. & Tremblay, M.S. 2017. Temporal trends in the cardiorespiratory fitness of children and adolescents representing 19 high-income and upper middle-income countries between 1981 and 2014. British Journal of Sports Medicine.

⁴² Finnish National Agency for Education 2018. Move! – monitoring system for physical functional capacity. www.edu.fi/move

⁴³ Finnish National Agency for Education 2017. National Move! Measurement results 2017. www.edu.fi/move/tulokset/2017

⁴⁴ Vuorela, N., Saha, M.T. & Salo, M.K. 2011. Change in prevalence of overweight and obesity in Finnish children - comparison between 1974 and 2001. Acta Paediatrica 100, 109–115.

⁴⁵ Kautiainen, S., Koivisto, A.M., Koivusilta, L., Lintonen, T., Virtanen, S.M. & Rimpelä, A. 2009. Sociodemographic factors and a secular trend of adolescent overweight in Finland. *International Journal of Pediatric Obesity* 4, 360–370.

⁴⁶ Definitions associated with children’s obesity. Current Care guideline Obesity (children). Working group appointed by the Finnish Medical Society Duodecim and the Finnish Paediatric Society. Helsinki: Finnish Medical Society Duodecim, 2013 (referenced on 21.8.2018). www.käypähoito.fi

⁴⁷ Mäki, P., Lehtinen-Jacks, S., Vuorela, N., Levälähti, E., Koskela, T., Saari, A., Mölläri, K., Mahkonen, R., Salo, J. & Laatikainen, T. 2017. Information source: Avohilmo Register of Primary Healthcare Visits – National monitoring of child obesity. [in Finnish] *Suomen Lääkärilehti* (Finnish Medical Journal) 7(4), 209–213.

⁴⁸ Cole, T.J., Bellizzi, M.C., Flegal, K.M. & Dietz, W.H. 2000. Establishing a standard definition for child overweight and obesity worldwide: international survey. *British Medical Journal* 320, 1240–1243.

⁴⁹ Palomäki, S., Mehtälä, A., Huotari, P. & Kokko, S. 2016. Vanhempien ja kavereiden tuki lasten ja nuorten liikunnalle. [in Finnish] In S. Kokko & A. Mehtälä (eds.). *The Physical Activity Behaviours of Children and Adolescents in Finland. Results of the LIITU study, 2016*. Publications of the National Sports Council 2016:4, 41-45.

⁵⁰ Määttä, S., Ray, C., Vepsäläinen, H., Lehto, E., Kaukonen, R., Ylönen, A. & Roos, E. 2018. Parental education and pre-school children’s objectively measured sedentary time: The role of co-participation in physical activity. *International Journal of Environmental Research and Public Health* 15(2), 366

⁵¹ Säkkinen, S. & Kuoppala, T. 2017. Varhaiskasvatus 2016. *Småbarnspedagogik* 2016. [in Finnish and Swedish] Statistical Report / National Institute for Health and Welfare 29/2017.

⁵² Joy in Motion register 2018. Early education units registered in the Joy in Motion programme. LIKES Research Centre for Physical Activity and Health.

⁵³ National Core Curriculum for Early Childhood Education and Care 2016. Finnish National Agency for Education, Regulations and guidelines 2017:17.

⁵⁴ Physical activity in municipal operations 2018 - basic data collection tables. Updated 20.7.2018. (www.teaviisari.fi/liikunta) National Institute for Health and Welfare, Ministry of Education and Culture, Association of Finnish Local and Regional Authorities, and National Sports Council.

⁵⁵ Reunamo, J. 2016. Results of the Orientation project. Unpublished information.

⁵⁶ Finnish Schools on the Move register 2018. Schools registered in the Finnish Schools on the Move programme. LIKES Research Centre for Physical Activity and Health.

⁵⁷ National Core Curriculum for Basic Education 2014. Finnish National Agency for Education, Regulations and guidelines 2014:96.

⁵⁸ Elo, S. & Koivusalo, R. 2017. Esi- ja perusopetuksen opettajat. In T. Kumpulainen (ed.) *Opettajat ja rehtorit Suomessa* 2016. [in Finnish] Finnish National Agency for Education, Reports and surveys 2017:2.

⁵⁹ Aira, A. & Kämppi, K. (toim.) 2017. Towards more active and pleasant school days. Interim Report on the Schools on the Move programme 1.8.2015–31.12.2016. LIKES Research Reports on Physical Activity and Health 329.

⁶⁰ Kämppi, K., Inkinen, V., Hakonen, H., Aira, A., Turpeinen, S. & Laine, K. 2018. Liikkuva koulu etenee koulujen toimintakulttuurissa. [in Finnish] LIKES Research Centre for Physical Activity and Health.

⁶¹ Wiss, K., Hakamäki, P., Hietanen-Peltola, M., Ikonen, J., Laitinen, K., Manninen, M., Palmqvist, R., Saaristo, V. & Ståhl, T. 2018. Promotion of health and welfare in comprehensive schools TEA 2017 (THL). Statistical report 12 (2018) National Institute for Health and Welfare, Ministry of Education and Culture.

⁶² Rajala, K., Haapala, H., Kämppi, K., Hakonen, H. & Tammelin, T. 2016. Koulupäivän aikainen liikunta. Välituntiliikunta. [in Finnish] In S. Kokko & A. Mehtälä (eds.) *The Physical Activity Behaviours of Children and Adolescents in Finland. Results of the LIITU study, 2016*. Publications of the National Sports Council 2016:4, 46-50.

⁶³ Finnish Schools on the Move register 2018. Educational institutions registered in Students on the Move programme. LIKES Research Centre for Physical Activity and Health.

⁶⁴ National Core Curriculum for General Upper Secondary Schools 2015. Finnish National Agency for Education, Regulations and guidelines 2015:48.

⁶⁵ Elo, S. & Koivusalo, R. 2017. Lukiokoulutuksen opettajat. In T. Kumpulainen (ed.) *Opettajat ja rehtorit Suomessa* 2016. [in Finnish] Finnish National Agency for Education, Reports and surveys 2017:2.

⁶⁶ Wiss, K., Hakamäki, P., Hietanen-Peltola, M., Laitinen, K., Manninen, M., Saaristo, V. & Ståhl, T. 2018. Hyvinvoinnin ja terveyden edistäminen lukioissa – TEA 2016. [in Finnish] Statistical report 14 (2017) National Institute for Health and Welfare, Ministry of Education and Culture.

⁶⁷ Penttinen, S. & Portin, M. 2017. Ammatillisen koulutuksen opettajat. In T. Kumpulainen (ed.) *Opettajat ja rehtorit Suomessa* 2016. [in Finnish] Finnish National Agency for Education, Reports and surveys 2017:2.

⁶⁸ Wiss, K., Hakamäki, P., Hietanen-Peltola, M., Rajamäki, A., Saaristo, V. & Ståhl, T. 2018. Hyvinvoinnin ja terveyden edistäminen ammatillisessa peruskoulutuksessa 2016. [in Finnish] Statistical report 10 (2017) National Institute for Health and Welfare, Ministry of Education and Culture.

⁶⁹ Siekkinen, K., Heiskanen, J., Oksanen, H., Hakonen, H. & Tammelin, T. 2018. More activity to support vocational studies. Results related to vocational school students’ physical activity and thoughts about increasing physical activity and forecasts of physical work ability [in Finnish]. LIKES Research Centre for Physical Activity and Health.

⁷⁰ Act on the Promotion of Sports and Physical Activity 2015. 390/10.4.2015.

⁷¹ Riikonen, K., Hakamäki, P. & Ståhl, T. 2018. Kuntien vahvuudet ja haasteet liikunnan edistämisessä 2016. Tutkimuksesta tiiviisti 8. [in Finnish] National Institute for Health and Welfare.

⁷² Virta, S. 2018. Liikuntapalvelut. In Report on Basic Public Services 2018. [Finnish report, abstract in English]. Advisory Board on Municipal Finances and Administration. Ministry of Finance publications 13/2018, 102 – 111.

⁷³ LIPAS 2018. Finnish sport facilities. www.lipas.fi

⁷⁴ Kokko, S. & Mehtälä, A. (toim.) 2016. *The Physical Activity Behaviours of Children and Adolescents in Finland. Results of the LIITU study, 2016*. Publications of the National Sports Council 2016:4.

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