

# THE REPUBLIC OF SLOVENIA REPORT CARD ON PHYSICAL ACTIVITY OF CHILDREN AND YOUTH







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# A path worth taking



The 2018 Slovenia Report on Physical Activity of Children and Youth is the second report, prepared by the Slovenian AHKG team.

The period from the previous 2016 Report Card did not bring any drastic changes or developments affecting children's physical activity in Slovenia but a relative modesty of research during this time does not depict the actual physical activity of our youngest population.

In fact, in Slovenia we do not need a lot of research to assess the physical activity of our children because we strive to provide them with equal opportunities for physical activity and because we surveil their somatic and motor development throughout their schooling period.

How do we do it?

Well, we are investing in our public educational system and within it we provide children with numerous opportunities for physical activity. All our schools follow the same, well developed PE curriculum, have standard high quality sport infrastructure and equipment, highly competent PE teachers and rich extracurricular sports programs which make good use also of our well preserved natural environment.

Since a large part of physical activity of children and youth is school-based, we are able to control it and react if certain things in certain schools do not go well. This, of course, would not be possible without research-based evidence and we are very happy to have our national surveillance system of somatic and motor development SLOfit which in 2017 celebrated its 30th anniversary of introduction in all schools in Slovenia. Due to its rich tradition we decided to equip our report card also with the data on physical fitness which, in our opinion, is the most reliable indirect indicator of adequate physical activity. Looking through the physical fitness goggles, we are satisfied that we are on the positive path, that our children are active, that our current population of girls considerably outperforms the childhood physical fitness of their mothers and that our boys are on the way to exceed their fathers' childhood physical fitness. We chose the school settings as the headquarters in the fight against physical inactivity. It is not the only path but it seems it is a path worth taking.



# Our production process

The development of the 2018 Report Card was conducted by the same team as in 2016. The team members belong to or work closely with all important stakeholders from research, education, public health, sport and urbanist fields. The team members were following the most recent development of data on different aspects of physical activity and jointly decided what to include in the report.

The production of the second Report Card was faster and easier than of the first one despite the fact that we introduced two additional PA indicators and expanded their list to 11:

- 1) Overall physical activity,
- 2) Organised sport and physical activity participation,
- 3) Active play,
- 4) Active transport,
- 5) Sedentary behaviour,
- 6) Family and peers,
- 7) Schools,
- 8) Community and the built environment,
- 9) Government strategies and investments,
- 10) Sleep
- 11) Physical fitness

Core indicators were graded with letters based on the deliberations of the team members. According to these standards, grades were defined when the percentage of children meeting established benchmarks fell between the following:

A is 81% to 100%;

B is 61% to 80 %;

C is 41% to 60%;

D is 21% to 40%;

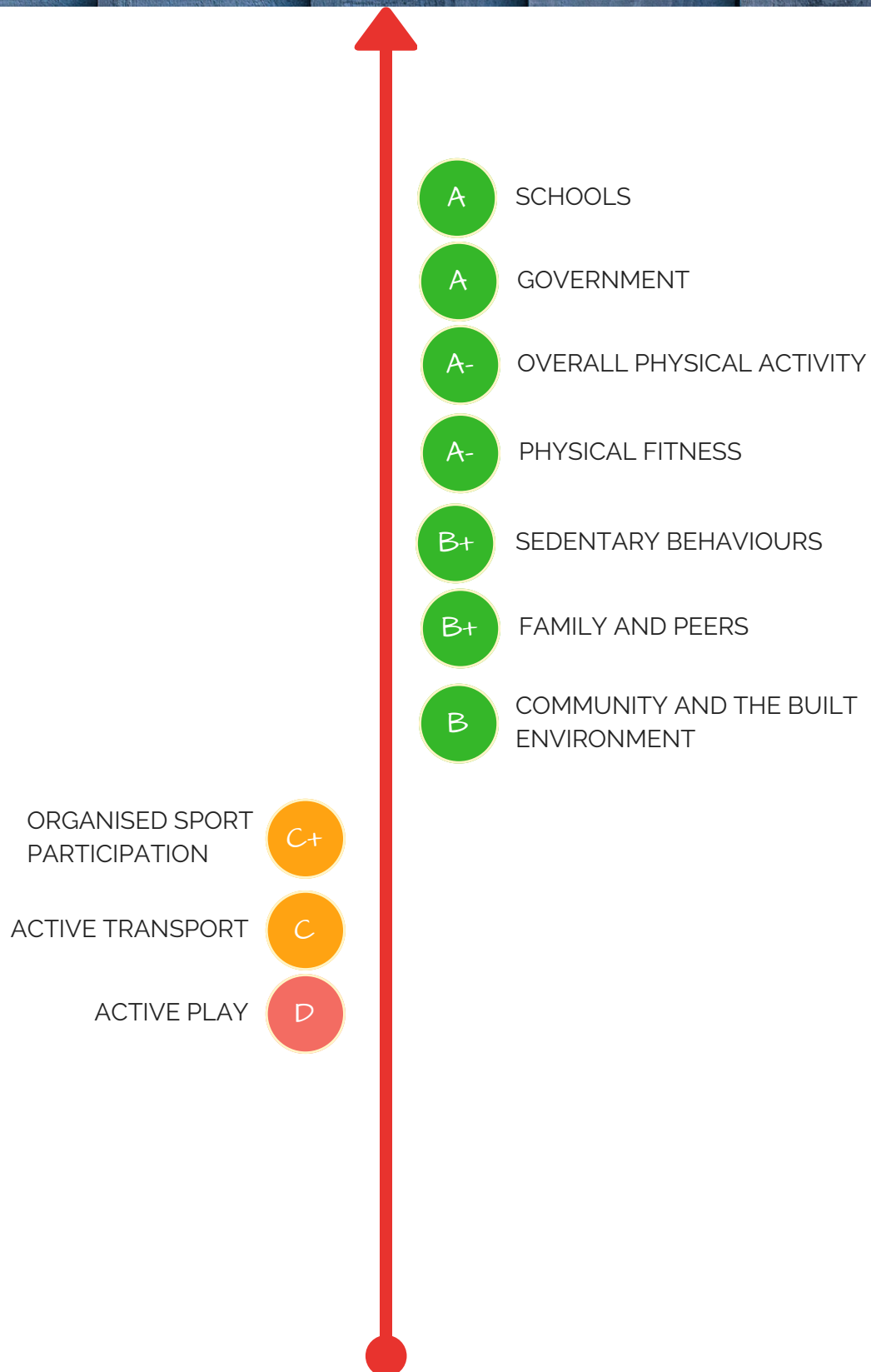
F is 0% to 20%;

INC is incomplete data.





# Summary of report card indicators and grades





# Overall physical activity

**A-**

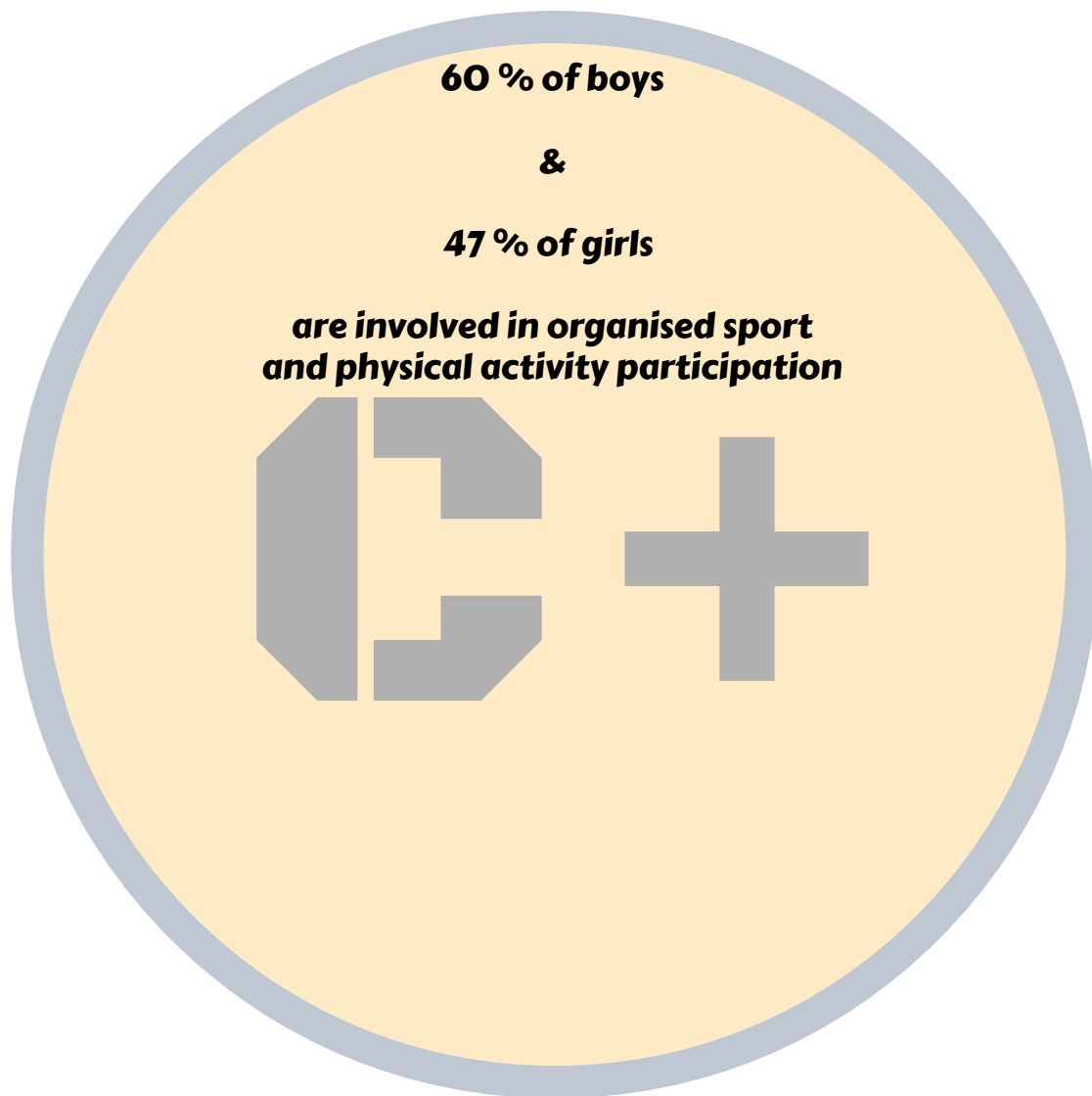
Over 80 % of children between 6 and 19 are meeting the WHO PA guidelines according to self-reported data, gathered by the ACDSi study [1, 2], but objectively-assessed PA shows that the 60 minutes of daily MVPA is achieved by 88% 11-year-olds whereas the proportion drops to 66% in 14-year-olds. Overall, 86 % of boys and 79 % of girls are reporting to meet the WHO PA guidelines.





# Organised sport and physical activity participation

Around 60 % of boys and 47 % of girls aged 6-19 report being engaged in extracurricular sport practice or clubs [1, 2]. The difference between boys and girls who are involved in organised sport practice in primary school is small (68 % and 63 %), but as children enter secondary level, these numbers drop to 49 % in boys and 23 % in girls, respectively.





# Active play



Less than 1/3 of children play actively more than 2 hours per day [1, 2]. This number seems small but is in fact not so discouraging because a large part of children, who play actively outside are the ones who are not involved in organised sport practice. Since Slovenia ranks among the safest countries in the world, the main reason for not engaging in daily active play is the lack of time.

**20 % of boys**

**&**

**25 % of girls**

**play actively every day**





# Active transport



Almost 49% of children commute actively to and from school and an additional 12% commute actively from school only [1, 2]. Interestingly, highly-educated mothers who start their work day around 9 AM are the ones most often driving their children to school. They do it out of convenience since on their way to work and not because of unsafe school routes.

**52% of boys  
&  
50% of girls  
commute actively to school**





# Sedentary behaviour

**B+**

Over 70% of children are meeting the screen-time recommendations of no more than 2 hours per day [1, 2]. The girls seem to be less sedentary than boys who spent more time behind their computers. The difference between schooldays and weekends in screen time is remarkable, since the share of children, meeting the no more than 2 hours of screen time guideline drops for 50% on weekends comparing to schooldays.

**74 % of boys  
&  
79 % of girls**

***are spending less than 2 hours daily behind screens***

**B+**



# Family and peers

**B+**

Over 75% of parents encourage children to be physically active and over 80% are providing material or logistic support for physical activity [1, 2].

**75 % of parents**

**encourage children to be physically active**

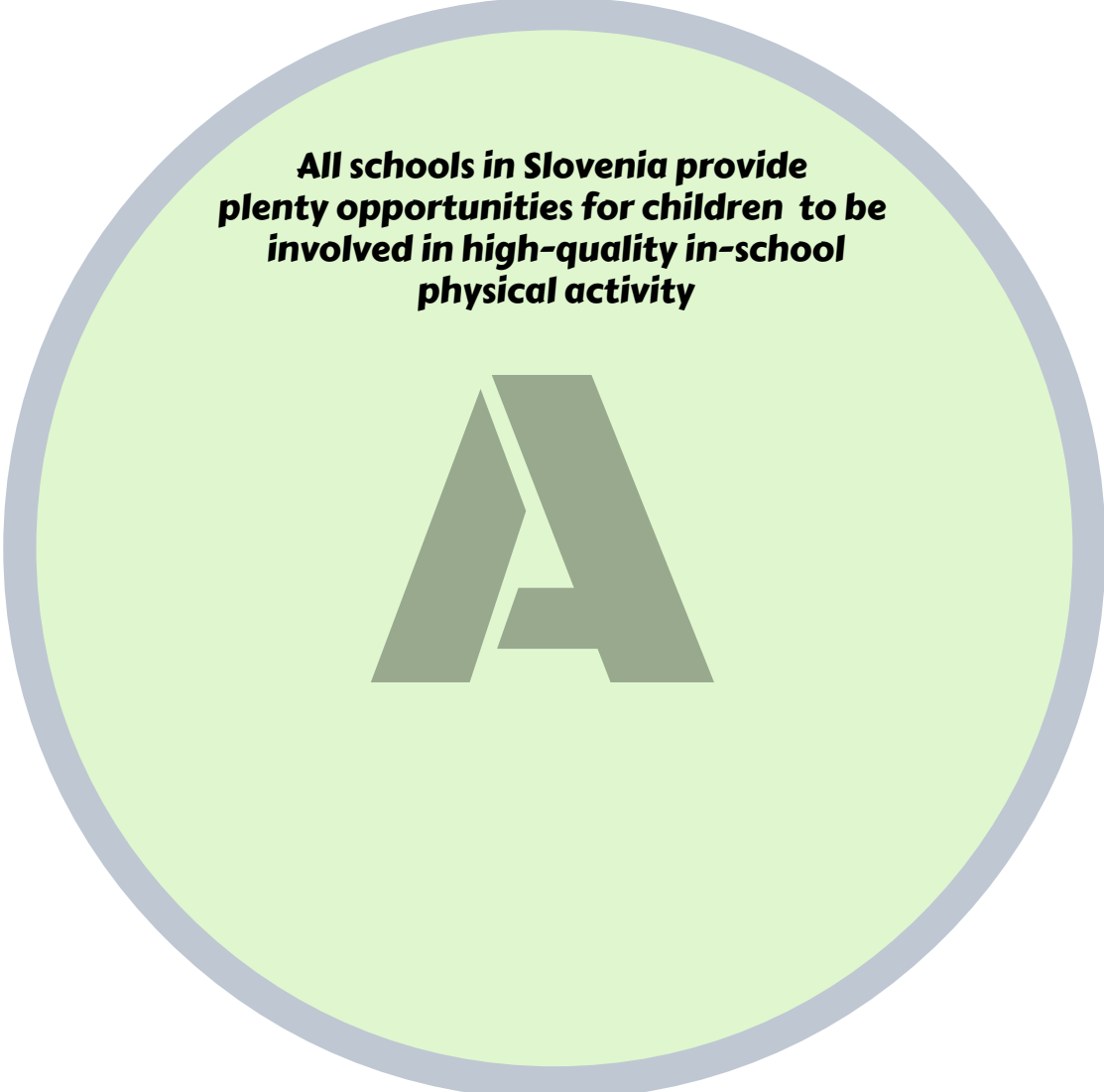
**B+**



# Schools

A

Schools in Slovenia are the strongholds of physical activity. On the one hand, children spend a lot of time sitting in classes, but on the other hand, all schools in Slovenia have very good sport infrastructure, offer high-quality physical education, obligatory 5 sport days every year, schools in nature, rich programme of extracurricular sporting activities and school sport competitions [5]. Slovenia also has a well developed PE curriculum which is followed in all the schools. In addition, Slovenian PE teachers are one of the most educated PE teachers in the world and are all educated in a single institution, the Faculty of Sport, University of Ljubljana.



***All schools in Slovenia provide  
plenty opportunities for children to be  
involved in high-quality in-school  
physical activity***


A



# Community and built environment

**B**

All municipalities in Slovenia are legally obliged to produce the annual programme of sport, to provide co-funding and cooperate with local sports organisations, and produce annual reports [6]. However, the share of public funding contributed to competitive sport and sport for all, varies from one municipality to the other.



***All municipalities in Slovenia  
produce and follow their  
annual programme of sport***

**B**



# Government strategies and investments

**A**

The government strongly supports children's physical activity. It transformed the Healthy Lifestyle intervention programme into an experimental programme on 155 primary schools with the goal to introduce it in all primary schools after 3 years. The goal is for children to reach 60 minutes of MVPA daily within school only. The government also introduced Youth for Youth sports programme in secondary schools in 2018 to boost PA also in adolescent population.

***The government strongly supports children's physical activity.***

**A**



# Sleep

**D**

Less than 40% of children between 11 and 18 years are meeting the sleep recommendations during school days [1, 2]. During weekends, however, over 77 % of boys and over 87 % of girls are meeting the recommendations.



***Less than 40 % of children are meeting the sleep recommendations***

**D**



# Physical fitness

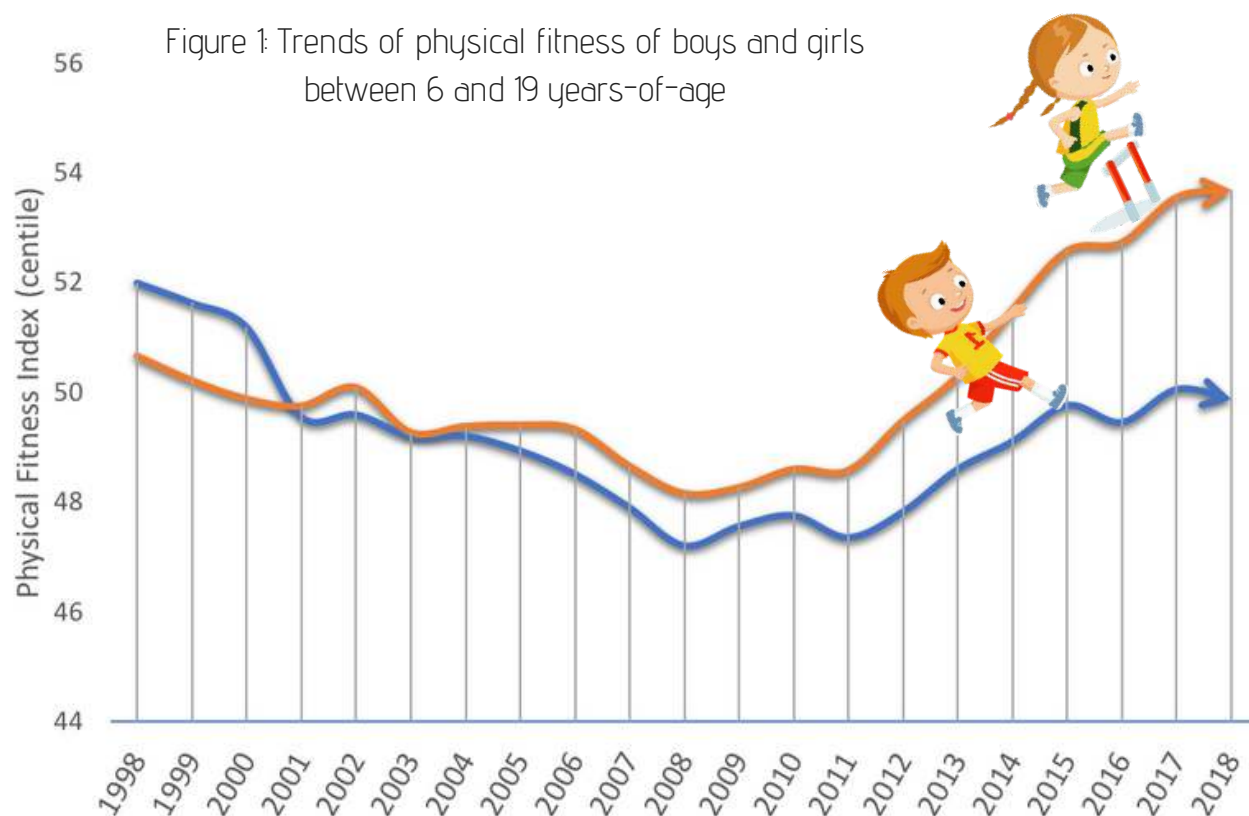
A-

In our view physical fitness is the most comprehensive indicator of healthy development. It is partly determined by genetics but it predominantly depends on individual's habitual physical activity. In contrast to prevailing focus on physical activity as an independent public health goal, we consider physical activity to serve only as a mean for improvement of physical fitness. Our main focus in schools is, therefore, not making children physically active but making them physically fit and teaching them how to preserve and improve their fitness. It is self understanding that one can not stay fit without being physically active.

In the 1990s, the prospects of healthy development of children in Slovenia were seriously challenged. Children fell victims of a number of negative developments that profoundly changed their physical activity patterns. Firstly, after independence of Slovenia in 1991 people immediately adopted consumerism, which was accompanied with the flooding of low quality imported food. In the same period, public transport system collapsed because personal cars and fuel became more accessible. Consequently, the streets could no longer be used as children's playground but were taken over by cars. On top of all, this was also the period when personal computers and the World Wide Web entered the Slovenian homes and immediately occupied a large part of children's free time.

When you combine the loss of space and time for physical activity with excessive caloric intake, the decline of physical fitness becomes inevitable and this is exactly what happened with children and youth in Slovenia. All the negative developments were rapid leaving parents, schools and other institutions unprepared to cope with

The analysis of the SLOfit data shows the declining trends of physical fitness in children and youth from mid-1990s onwards (Figure 1). The public was well aware of the problem and numerous actions were taken to change the trends. Unfortunately, the majority of activities were focused on raising awareness of physical activity for health, public campaigning and on nutrition. On the other hand, during this period of decline the state and municipalities were investing in building and renewing school sport infrastructure and, thus, preparing grounds for putting children's development back on track. In the school year 2010/11, an opportunity arose to raise the quality and quantity of Physical Education in primary schools.



The Ministry of Education, Science and Sport introduced the Healthy Lifestyle programme [7] in more than one-quarter of primary schools. The schools had to apply for the funding of a new PE teacher whereby the schools from the eastern part of Slovenia had the advantage due to poorer physical fitness of children from these regions. The programme introduced two additional lessons of PE per week, thus providing children with one PE lesson each day. However, the additional improvement in quantity was accompanied also with an upgrade in quality since every participating school had to employ a beginner PE teacher to deliver these additional classes. As a result, the physical fitness of the entire population of children and youth started to improve. The disturbance in financing of the programme in the school year 2015/16, which resulted in temporary suspension of the activities, was immediately observable in the decline of physical fitness in girls and especially among boys (Figure 1). The Healthy Lifestyle programme proved that 3 lessons of PE per week are not enough to improve the physical fitness of children and that only one lesson per day, delivered by highly competent specialist PE teacher, can make a difference.

In order to grade the physical fitness of children and youth, we calculated the proportions of children who are achieving adequate levels of physical fitness (Figures 2 and 3). Physical Fitness Index was calculated as the percentile value of the mean of percentiles of 8 fitness tests of the SLOfit test battery. The percentiles were calculated according to age and sex on the fitness data of Slovenian children, aged between 6 and 19 in the period 1989-2018.



Figure 2: Share of boys with poor and exceptional physical fitness in Slovenian population

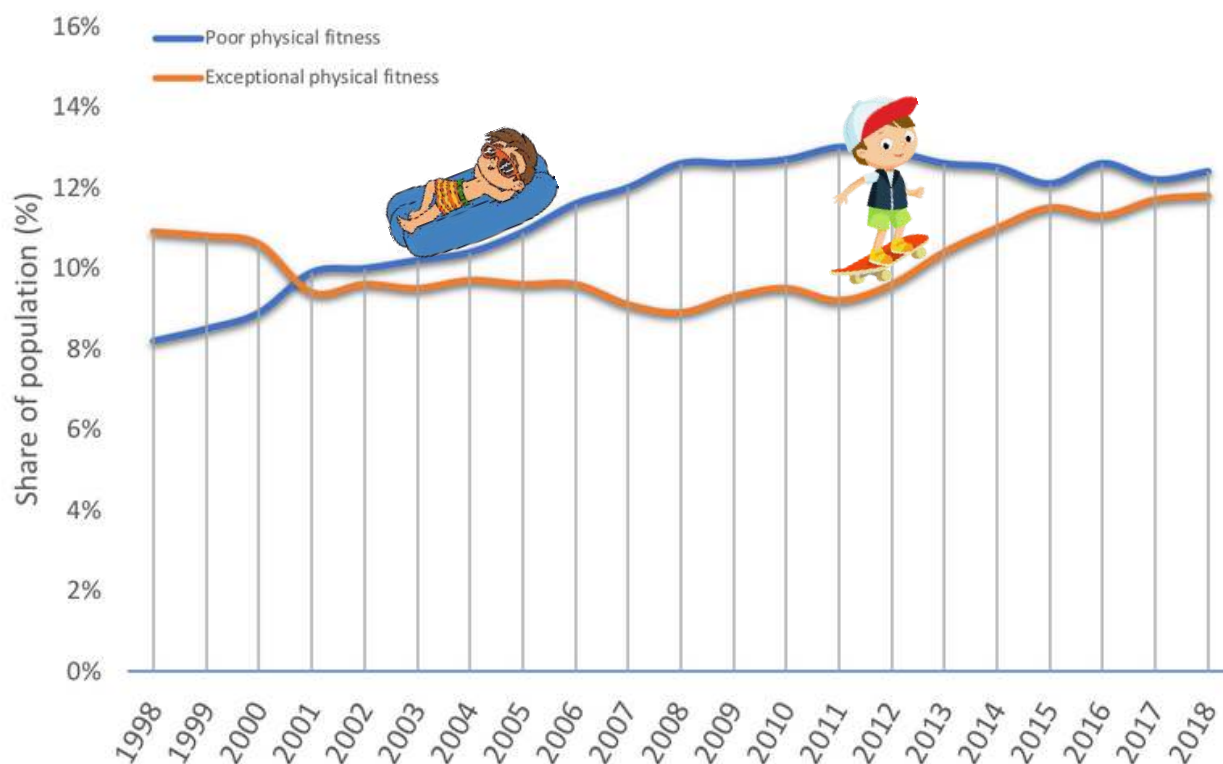
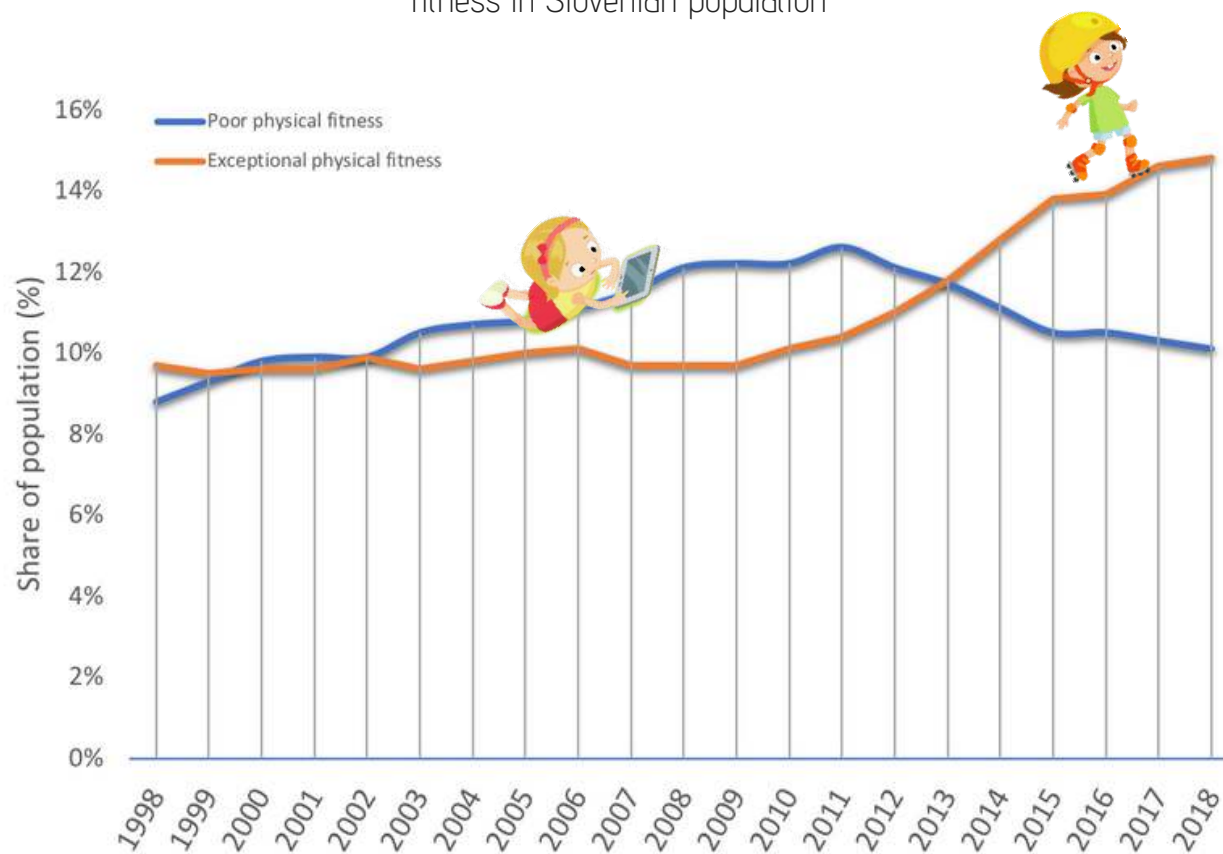
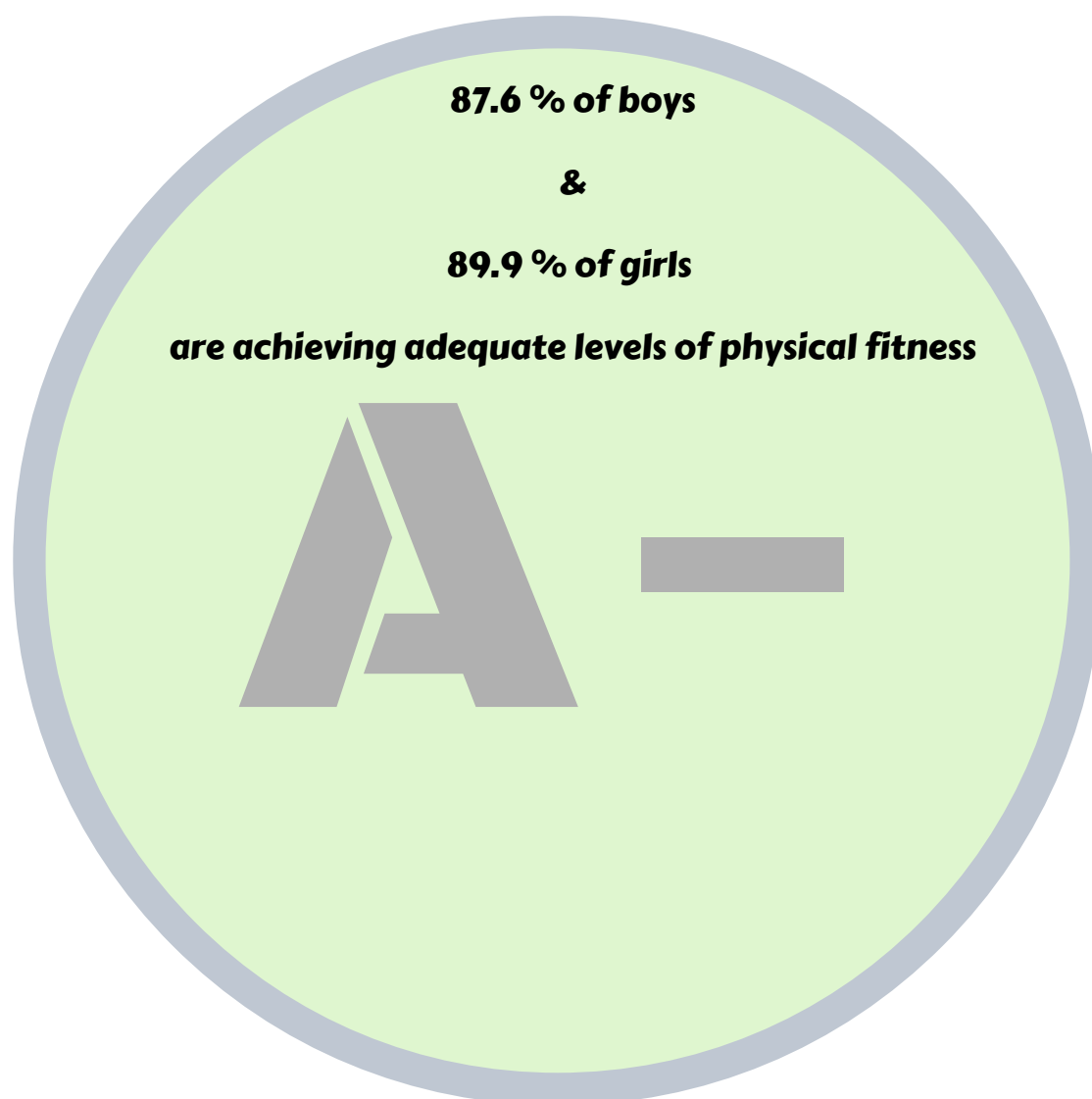


Figure 3: Share of girls with poor and exceptional physical fitness in Slovenian population



Boys in Slovenia experienced a dramatic turn at the beginning of the new millennia. For the first time, the share of boys with poor physical fitness (PFI below 10th percentile) exceeded the share of boys with exceptional physical fitness (PFI above 90th percentile). Although the share of the first group has been stagnating and the second has been growing in the last years, there are still more boys with poor physical fitness than the ones with exceptional physical fitness today.

Although the share of girls with poor physical fitness was rising and exceeding the share of girls with exceptional physical fitness for a decade, there has been a tremendous rise of the second group in the last eight years. Today, girls with exceptional physical fitness considerably outnumber their peers with poor physical fitness.





# The SLOfit system



The SLOfit system has been introduced in 1982 and was implemented in all schools in Slovenia after a six-year testing period. The database currently includes over 7 million sets of data, each consisting of 3 anthropometric measurements and 8 fitness tests. The data of over one half of the entire Slovenian population, consisting of over 50 different birth cohorts are currently included in the database. Every spring we supplement it with new data of children and youth between ages 6 and 19, gathered at the annual measurements, organised on all Slovenian schools every April.

The SLOfit data gathering follows the official protocol and all the data is centrally analysed at the Faculty of Sport. Schools receive feedback on the level of individual child, class and entire school.

perceive the annual testing of their children as an important indicator of their healthy development.

In 2017 the SLOfit team at the Faculty of Sport introduced the My SLOfit web application and tested it on a sample of Slovenian schools. In the next three years, all the schools will be able to use the application free of charge. The most important feature of the application is the feedback system with rich visualisation of data. After a child's data is analysed, the parents receive an automatic notification that the latest developmental data of their child is available and they can log in the child's web profile. Parents also have the possibility to grant insight into their child's profile to physicians, trainers or other experts who work with the child. Since the SLOfit measurement protocol has been unchanged for the last three decades, parents today have the opportunity to directly compare their childhood somatic and motor development with their child's development. This is a very strong incentive for parents to assure sufficient physical activity to their children.





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