



Active Healthy Kids
SLOVENIA

The Republic of Slovenia Report on Physical Activity for Children and Youth



Active Healthy Kids Slovenia

2016 Report Card

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The University of Primorska and University of Ljubljana are the Lead Research Universities for the Report Card initiative and the Administering Organisation of Active Healthy Kids Slovenia.



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About the 2016 report card on physical activity for children and youth

The Republic of Slovenia is one of the smallest EU member states, located in Central Europe, has the population of 2,064,188 and a gross domestic product of €35,416 million [1]. It has diverse topography and climates, ranging from Mediterranean along the short Adriatic coastline, to alpine in the mountainous regions of the Julian Alps in the north, to continental in the flat agricultural lands to the east. Slovenia was formerly a part of Yugoslavia and is celebrating its 25 years of independence in 2016.

With its pristine nature and well developed sports infrastructure, Slovenia offers lots of opportunity for physical activity in any season of the year. However, the question of how physically active the children in Slovenia are, is not easy to answer with confidence. In Slovenia we are well aware that it is very challenging to estimate, let alone directly measure physical activity of the population. There are some available scientific resources on physical activity in Slovenia but more than three decades ago we developed a national surveillance system of physical and motor development of children and youth called SLOfit which gives us a fairly good, although indirect, estimation of habitual physical activity through physical fitness of children and youth. Since 2011, physical fitness of in 6- to 14-year-olds in Slovenia has been steadily improving [2], which is an encouraging sign of increased physical activity but in the secondary-school population of 15- to 19-year-olds we have been observing only a stagnation of the decline of physical fitness.

Since Slovenia has a uniform educational system we have a very good insight in the extent of school-based physical activity of children and youth, but their afternoon and weekend physical activity is much more demanding to assess. The "official" data on habitual physical activity of children and youth in Slovenia is usually derived from the Health Behaviour of School Children study (HBSC) [3] but this data proved to be very unreliable due to employed methodology which is why a group of researchers from Slovenia decided to use the best available data

to get a better estimation of the current status of the overall physical activity among children and youth. Fortunately, the Global Matrix 2.0 platform enabled us to employ an established grading system used by the Active Healthy Kids Global Alliance (AHKGA) and determine the current state of PA behaviours of children and youth as well as to identify also other environmental correlates of physical activity.

Currently, overall children's PA has not been available in a single report in Slovenia, nor have other investigations [3, 4, 5, 6, 7] assessed PA following the AHKGA grading system. Therefore, this Report Card provides comprehensive insight from the best available evidence on several indicators related to levels of PA including: policy, environmental issues, and social trends from across the country.

Its purpose is to summarise the results of the Republic of Slovenia's first annual Report Card, and to communicate these findings to a wider international community. Our second motivation was to identify areas of research that are currently lacking or underdeveloped in Slovenia, and to determine how PA opportunities may be improved for children and youth across the country. Sources used to create this Report Card include the SLOfit database (1989-2015) [8], the 2013-2014 Analysis of Children's Development in Slovenia Survey (ACDSi) [9, 10], and various academic and nonacademic (e.g. government reports) sources.

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Methodology

The development of the Republic of Slovenia Report Card was coordinated by representatives from the Faculty of Mathematics, Natural Sciences and Information Technologies, University of Primorska and the Faculty of Sport, University of Ljubljana. In mid-2015, a Slovenian representative was invited by the Active Healthy Kids Global Alliance to participate in the Global Matrix 2.0, and began the process of assembling the expert group. A Research Work Group (RWG) was established, represented by four faculties from two Slovenian Universities: 1. the Faculty of Mathematics, Natural Sciences and Information Technologies, University of Primorska, and 2. Faculty of Sport, 3. Medical Faculty, and 4. Biotechnical Faculty, all from the University of Ljubljana. Representation was also secured from the Slovenian Olympic Committee, the Primary School Board of Headmasters, and the Slovenian National Institute for Public Health.

Thus, the RWG consisted of a diverse, 12-member team, following the suggestions of the Active Healthy Kids Global Alliance International Template and modelled on similar international cards, in particular, the Canadian Report Card released by Active Healthy Kids Canada [11].

Development of the Report Card occurred over approximately 12 months: establishing cooperation between research institutions, assembly of experts from backgrounds related to child PA, data sources identification, data collection and synthesis, and finally, a critical assessment of the data amassed in order to identify and grade all 9 PA indicators:

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

Feedback from the country mentor on Report Card development was obtained in December 2015, when programme coordinators met to identify and evaluate overall sources of PA indicators. In January 2016, the RWG team met to discuss literature, data sources, and future literature review strategies. RWG meetings followed approximately once per month from January 2016, during which the team analysed existing data and identified weaknesses in literature and data sources. Team members continued collecting data sources for Family and Peers and Active Play.

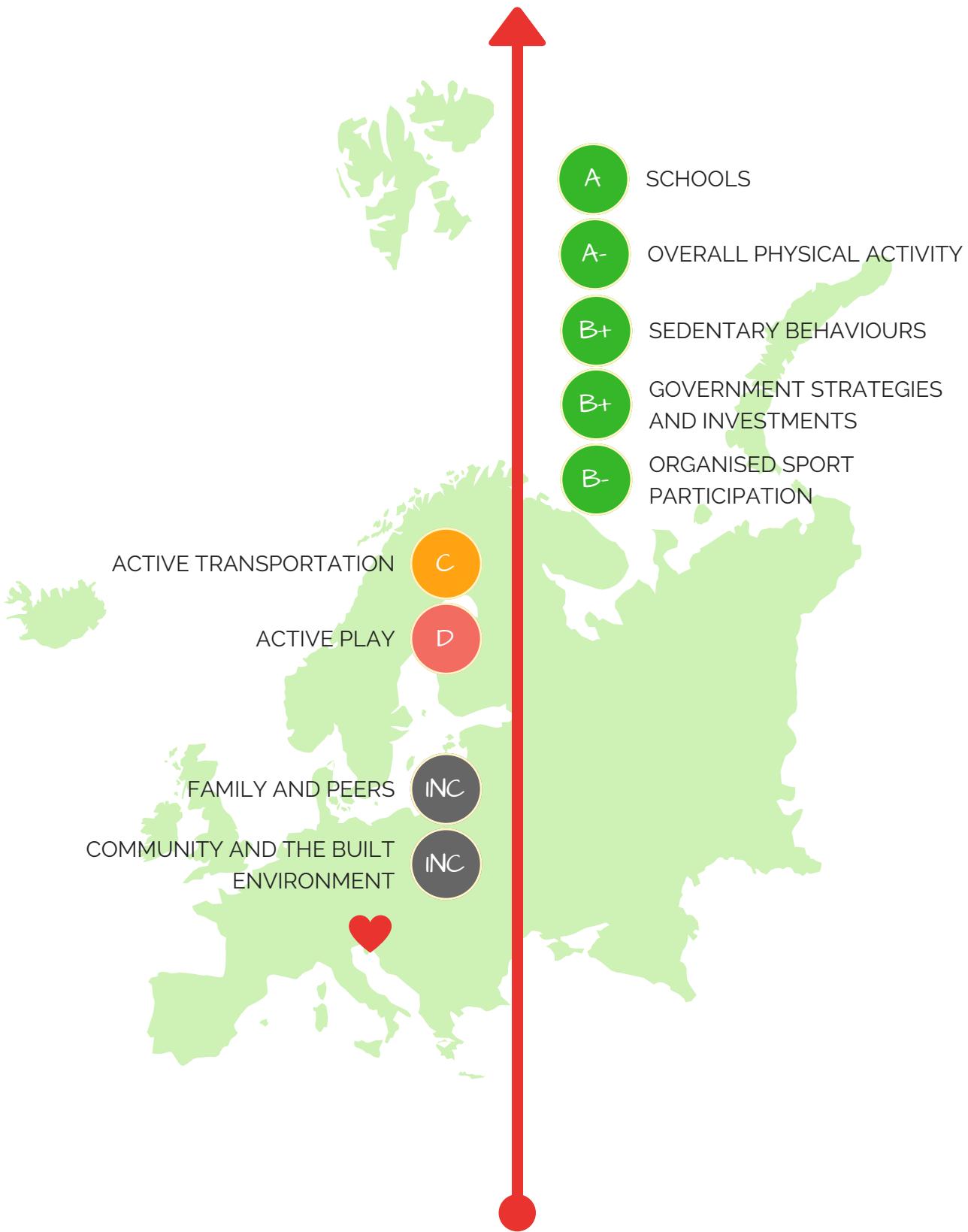
In March 2016, the RWG met twice for extended grade evaluation meetings. To assess the health and behavioural situation of Slovenian children and youth, data were drawn from completed and ongoing Slovenian government projects related to core indicators and benchmarks. The most comprehensive source of PA data in children and youth was the ACDSi 2013 and 2014 study [9, 10], which includes information on self-reported and parent-reported PA behaviours in 6- to 19-year-olds ($n=5422$) from the CLASS [12] and SHAPES questionnaires [13]. Core indicators were graded with letters based on the deliberations of the RWG. 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.

Criteria for assigning grades was based on the Canadian report and other previously published national reports [11, 14]. In assessing these grades, the RWG considered the sample size of the data and compared representative databases to objectively measured PA data, when available. When assigning the grades, nationally representative data took precedence.



Summary of report card indicators and grades



10

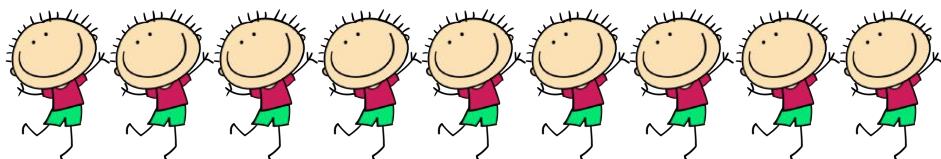


A-

Overall physical activity

According to the ACDSi data, 97% of boys and 95% girls (ages: 6-11 y) are meeting WHO recommendations for daily PA. These data are in accordance with objectively measured data from a sample of 11-year-olds from Ljubljana, which confirms that almost all children meet WHO recommendations [15]. Combined data of younger (6-11 y) and older age groups (12-18 y) shows that 86% boys and 76% girls meet the WHO PA guidelines. When stratified by activity on weekdays, 82% boys and 72% girls (all ages) meet these PA recommendations, respectively. On weekends, this percentage remains relatively high (81% boys and 72% girls meeting recommendation guidelines). The overall physical activity indicator was graded "A-".

11



86%



76%

12

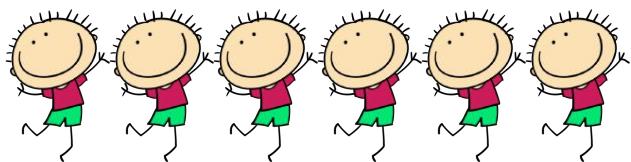




Organised sport participation

There is no centralised registry of sport practice or participation in organised clubs for children and youth outside of the school system in Slovenia. Although some organised sport data do exist, there are issues with reporting consistency throughout the different legislative branches. Therefore, based on school records from an ACDSi nationally-representative sample [9, 10], 60% boys and 47% of girls aged 6-19 y report being engaged in extracurricular sport or clubs. 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. The organised sport participation indicator was graded "B-".

13



60%



47%

14

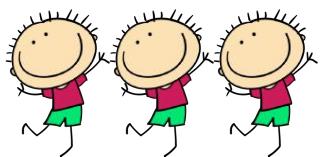


D

Active play

Data for this indicator were derived from questions querying parents on how much active play occurs at home (e.g., playing in the house yard, roller-skating outside, playing catch, riding bike, etc.) from the CLASS questionnaire [12] used in ACDSi study [9]. According to these results, on school days only 16% of boys and 19% girls aged 6-11 y play actively more than 2 hours per day (~F); on weekends this figure is increased to 57% and 59% of boys & girls (~C). Overall, combined school day and weekend outdoor play data reveal that 29% of boys and 30% of girls play outside more than 2 hours per day. The active play indicator was graded "D"

15



29%



30%

16

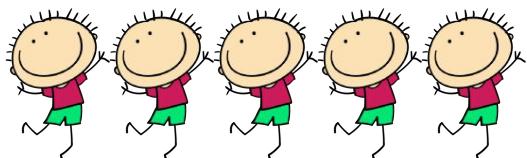


C

Active transportation

The percentage of children and youth who use active transportation to get to and from school has been queried in 31 schools across Slovenia [25]. A nationally-representative dataset showed that the number of children and youth using an active method of transport to/from school was: bike 3%; walk 26% (~D). In the national capital Ljubljana, the proportion of active transport was higher: bike 6%; walk 52% (~C). Interestingly, when children were asked which mode of transportation they would prefer to take to school, kids answered with the highest proportion wishing to bike: bike 43%; walk 28%; car 20%; bus/train 9%. The ACDSi nationally-representative data [9, 10] indicates that active commuting to school remains relatively stable with age with ~52% of boys and ~50% girls from age 5 to 18 y actively commuting to school. Active transportation was graded "C".

17



52%



50%

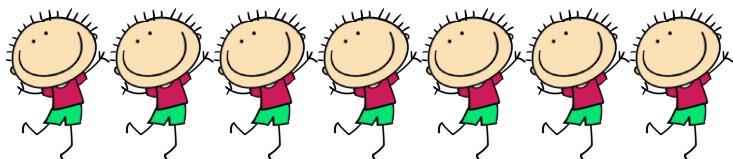




Sedentary behaviours

Data on combined screen time (computer, gaming, internet, mobile phone use) during weekdays and weekends was assessed by the ACDSi study [9, 10] using the CLASS [12] and SHAPES [13] questionnaires, and by the HBSC 2014 data (in children aged 11, 13, 15 y) [4]. The HBSC study in Slovenia (which includes only three age-groups: 11-, 13- and 15-year-olds) indicates that during weekdays, 53% of these age-groups watch television more than two hours per day, and 28% play computer games more than two hours each day. Unfortunately, the HBSC study does not provide information on total screen time; further, these results differ significantly from those obtained in the ACDSi study. Specifically, daily screen time (calculated as a sum of TV watching, computer gaming and web surfing) during school days indicate that 90% of boys and girls meet the recommendation of less than 2 hours of screen time per day. During weekends this percentage decreases to 37 and 45% of boys and girls, respectively. Overall, 74% of boys and 79% of girls aged 6-19 y meet the recommendations for screen time. Thus, for 5 days of the week, children are in an "A+" range, whereas on weekends this drops to a "~C". Sedentary behaviours was graded a "B+" overall.

19



74%



79%



20



Family and peers

The evidence on family and peer-related encouragement of PA in Slovenia is scarce. The ACDSi study [9, 10] shows that over 75% of parents encourage their children between 11 and 19 y to be physically active. Almost 90% of parents support opportunities for PA by buying sports equipment, driving kids to practice, etc. When asked about their parent's PA levels, children perceived their fathers to be 'very active' in ~30% of cases and 'moderately active' in 35% of cases. They perceived mothers' physical activity to be 21% for 'very' and ~40% for 'moderately active' rankings, similar to 47% of active Slovenian parents [16].

21

In regard to peer support for PA, the ACDSi study found that among children who perceive themselves to be physically active, peer support is higher in boys than girls. In boys, 64% reported having more than 4 friends who are physically active, whereas only 38% of physically-active girls reported having more than 4 physically-active friends. Family and peers was graded "INC" overall.

INC



School

22

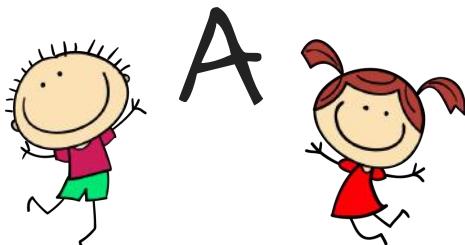
In Slovenia, physical education (PE) is a compulsory subject in all primary and secondary schools and they all follow the same PE curriculum. PE minutes vary by grade such that primary school (grades 1-5) receive a minimum of 105 hours per year, grades 7-8 receive 70 hours, and grade 9 students receive 62 hours per year. Grades 7-9 have opportunities to select an additional 35 hours of elective sport classes, and 35 hours of elective dance class. Grades 4-6 may also select an additional 35 hours of elective, health-oriented sport classes [17]. In addition to regular PE classes, primary school children have 5 sport days in each grade, each lasting 5 hours, adding an additional 25 hours of school-based PA in a school year. Some primary schools in Slovenia organise enhanced PE curriculum, during which children receive supplementary lessons [18]. Additionally, primary schools in Slovenia are allowed to have more than the prescribed minimum of 2 or 3 PE lessons per week if the school board decides so, although less than 10% of schools actually do. All primary schools are obliged to offer extracurricular sport programs, which are free of charge for all children. In the best case scenario, a 10-year old in Slovenia can receive 131 hours (or 7875 minutes) of regular PE lessons, plus 25 hours in school sport days, 35 hours of elective sport courses, and at least 35 hours of extracurricular school-based sport practice, summing to a total of 226 hours of school-based PE. Thus, Slovenian primary schools offer access to 77 min of daily in-school, professionally guided PA. In the (worst-case) event that a 10-year-old would participate in only the compulsory 3-weekly lessons of PE and obligatory school days, this number would drop to ~39 min per school day, still more than half the 60 min of recommended daily PA.



In secondary schools, the number of PE lessons varies according to the type of school and grade. Most secondary students have 3 hours of PE per week, some have 2 hours, and some vocational programs provide only 1 PE lesson per week. Certain grammar schools also have sport classes which account for 6 hours of PE per week [19]. Secondary schools also organise special sport days, but they are not obliged to organise extracurricular sport programs like primary schools do.

The percentage of PE classes taught by a specialist vary by grade, such that from primary school grades 1-5, PE is generally taught by a standard classroom teacher; in grades 1-3, 15% of classrooms have a specialist PE teacher, in grades 4-5, 50% are specialists, and from grade 6 through secondary school, 100% of PE classes are taught by PE teachers with a university degree[20]. Finally, regarding school sports infrastructure, Slovenia is very developed since every primary school and most secondary schools have at least one sport hall (most have two), fully equipped with all necessary sports equipment and additional outdoor facilities [21]. All schools in Slovenia have PA school policies (e.g., bike racks at school, traffic calming on school property, outdoor time). Schools, infrastructure, policies and programmes were graded "A" overall.

23





24



Community and the built environment

Slovenia is among the least urbanised EU countries, with urbanisation rate of ~50%. It has a characteristic settlement pattern of dispersed small settlements and strong trends of sub-urbanisation and peri-urbanisation, with settlement development along transport corridors and prevailing housing typology of single family houses. The overall consequence is an increase in commuters and difficulty organising public transport [22]. Private cars prevail in passenger transport; indeed, car ownership effectively doubled in the past 20 years to a rate of 500 per 1000 inhabitants [22]. In cities, densification of urban structure has led to excessively high usage of building plots and a reduction of open green spaces, decreasing urban housing quality [23].

25

Municipalities are, on the one hand, building bicycle lanes, walking paths, etc., but there seems to be a lack of a uniform strategy to plan urban environments, especially regarding maximising PA opportunities. Sport infrastructure, the natural environment, and parks are often within walking distance in urban centres, but it seems these spaces are not accessible to children because of motor traffic that crosses walking paths. The ACDSi study included only one question that could be related to the built environment; when 11- to 14-year olds were asked why they don't walk to school, only 10% considered it unsafe to walk. Overall, the empirical data on the influence of the built environment on PA in Slovenia is scarce. Community and the built environment was graded INC- incomplete.

INC

Government



26

The Slovenian Parliament has adopted a National Programme of Sport for 2014-2023 [24]. One year later it also adopted the National Programme of Nutrition and Physical Activity for Health 2015-2025[25]. For the first time in the history of the independent Slovenia, the latter programme coordinates the efforts of public health, sport and the educational sector, emphasising PA, along with nutrition, as key factors in achieving public health goals. Both strategies encourage the entire Slovenian population (from children to elderly) to adopt healthy lifestyles. These initiatives will provide the foundations for implementing publicly funded, high-quality, organised PA programmes on both national and local levels. These programmes especially focus on raising the quality and quantity of PA in children and youth, with additional emphasis on socially-underprivileged groups. The National Programme of Sport 2014-2023 proposes the following (non-inclusive) actions: to provide at least 180 min of high quality PE per week to every child to develop habitual PA and a healthy lifestyle, to provide free swimming and cycling lessons as a means of enhancing social competencies, and to ensuring leisure time for sporting activities [24].

In the past two decades, the national government and municipalities have invested in the reconstruction of old, and the building of new, school sport halls including other sport infrastructure. For example, from 2001-2008 public funding of sport infrastructure exceeded €300 million [26].

The policy of the Ministry of Education, Science and Sport also enforces rules related to the professional competencies of teachers and trainers



in PE and youth sport, which require people to have a university degree in PE to work with young athletes [27]. In addition, the Ministry currently develops strategies to implement joint teaching of classroom teachers and PE teachers within the first 5 years of primary school to raise the quality and effectiveness of PE. Finally, more than 25 years ago, the government of Slovenia established the Centre for School and Outdoor Education programme which has 23 learning centres scattered throughout the country. Each of these centres employs at least one PE specialist, and offers various outdoor activities that are not available within regular school settings.

27

The key reason for the past effectiveness of government policies related to schools, sport infrastructure, PE, and its curriculum in Slovenia is the evidence-based policy planning of the Ministry of Education, Science and Sports [17] based on the SLOfit data on secular trends in physical and motor development of children and youth to plan its future activities and interventions, as well as evaluate their effectiveness. To wit, the Ministry introduced a health-oriented PA intervention program 'Healthy Lifestyle' to combat growing childhood obesity and declining physical fitness [2]. Current evidence from theSLOfit data suggest that these state-wide interventions are effective at influencing population movements [2], since obesity trends have been in decline since 2011, and the physical fitness of primary school children has improved significantly [2]. These results are encouraging the Ministry to implement similar interventions in vocational schools, starting in 2016/2017. Government strategies, policies and investments were graded B+.

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