The Results from Estonia's 2018 Report Card on Physical Activity for Children and Youth

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Introduction

Recent data shows that only a small proportion of Estonian children and youth accumulate the recommended amount of daily moderate-to-vigorous intensity physical activity (PA) (MVPA; ≥ 60 minutes).¹⁻³ The purpose of this paper is to summarize the results of the 2018 PA Report Card. Grades were based on the best available evidence. Data from different academic and non-academic sources from last eight years (2010-2018) were analyzed to assign the grades for each of the Report Card indicators.

Methods

The Estonian 2018 Report Card is the second annual assessment of PA for Estonian children and youth. All available data was gathered and evaluated by the research work group, which consisted of 8 PA experts from the University of Tartu. 7 national leading researchers and policy experts were also involved in the grade assignment meeting. Some members had access to important PA datasets and were able to run custom analyses that gave us the opportunity for assessment (e.g., Active Play and Active Transportation).

The Estonian 2018 Report Card included 10 indicators related to PA based on the Global Matrix 3.0 (Overall PA; Organized Sport Participation; Active Play; Active Transportation; Sedentary Behavior; Family and Peers; School; Community and the Built Environment; Government; and Physical Fitness). Each PA indicator was assessed during the grade assessment meeting according to the "Core PA Indicators for Global Matrix 3.0". The data sources relied upon were mostly national surveys and documents and included Estonian Health Behavior in School-Aged Children survey (2013-2014 HBSC), Health Promotion Effectiveness in Estonian Schools (2012-2015 TerVe Kool), Estonian Children's Physical Activity Study (2015), Schools in Motion Survey (2018), Health Behavior among Estonian Adult Population (2016), The general principles of the Estonian sports policy until 2030 (2015), The Green Book of Nutrition and Physical Activity (2016), Estonian Sports Register (Records for the year 2017) and Estonian Education Information System (Records for the school-year 2015/2016).

Results and Discussion

The results of Report Card are summarized in Table 1 and the 2018 Estonian Report Card front cover is displayed in Figure 1.

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The results showed that the overall PA of Estonian children and youth has slightly increased compared to 2016 Report Card,⁴ but there is still a need to promote the PA of children and youth. Improvements were present in indicators like School infrastructure, policies, and programs as well as in Government strategies, policies and investments. Active play and sedentary behaviour indicators were graded *F*, thus more research is needed surrounding the low levels of active play and the high levels of, objectively measured context-specific, sedentary behaviour to provide interventions for reducing sedentary time through unstructured/unorganized active play. There was a decline in the grade of Family and Peers grade (from *C* to *D*), which is primarily due to the insufficient information concerning the activities children perform with their family. Also, parental support for children PA is weak or not well documented.

In several indicators, there was a lack of data for different age groups, thus representative studies for different age groups and in different areas (e.g., rural areas and small towns are less investigated) are needed for all indicators.

Figure 1 — Estonia's 2018 Report Card Cover Page.

Table 1 Grades and rationales for Estonian's 2018 Report Card

Indicator	Grade	Rationale
Overall PA	D-	Objectively measured PA showed that 28% and questionnaire measured PA showed that 26% of 10-17-year-old children and youth had at least 60- minutes MVPA per day. ^{2,5} However, some studies demonstrated that the proportion of compliance with the PA recommendation remained below 20%. ^{1,3-5} These results together indicate that after evaluating all data including the representativeness of the sample and the quality of used methods, the overall PA grade was D-.
Organized Sport Participation	C	Based on the Estonian Sport Register, 48% of Estonian children aged 5- to 19-years were engaged in organized sport. ⁶
Active Play	F	According to the studies only 11-17% of 10-17-year-old children and youth were engaged in unstructured/ unorganized active play for several hours a day. ⁵
Active Transportation	D	According to the studies the proportion of students using active transport varied between 36-56%. Specifically, 35-39% of studied children walked to school and back home, while 14%-17% of children bicycled to school. ⁵ The grade D was decided after carefully considering the number of subjects, age range and used methodology of different studies.
Sedentary Behaviors	F	According to the HBSC study, only 7% children had less than 2 hours screen time daily. ¹
Physical Fitness	INC	The Physical Fitness indicator was graded INC due to a lack of data. There are no studies of which general conclusions could be drawn.
Family and Peers	D	Based on a survey among sixth-graders, 61% had friends to do sport with and 64% had friends who invited them to play outdoors or to do sport together. ³ On the other hand, 37% of parents met the Global Recommendations on PA for Health. ⁷ Based on studies, 24-33% of children reported that their parents were physically active with them. ⁵
School	C+	Physical education is compulsory subject in all Estonian basic and upper secondary schools. The learning outcomes, contents and the number of lessons are regulated by the National curriculum for basic and upper secondary schools. 87% of Estonian physical education teachers have the special qualification. ⁸ 48% of 11-14-year-old children reported that they had the possibility to be physically active during in-school break times and 55% of them reported that their physical education teacher organizes activities outside school hours, ³ whereas 77% of physical education teachers reported that they take part in the competitions with their students outside of school hours.
Community and Environment	B	The majority of children said that in their neighborhood there are places where they can play safely (80% of children and youth). There is lack of information about regional policies for PA. In every municipality there are parks, playground, paths for jogging or running, but there is no overview of how well all regions are covered. There is a need for accessible sporting facilities (open throughout the day, free of charge etc.). ⁵
Government	B	In 2015 the Estonian government approved "The General Principles of the Estonian Sport Policy until 2030", which states the main developmental directions and aims for PA with emphasis on lifelong PA. Since 2016, a survey of the implementation of the strategy has been compiled. The development of physical education curriculum continues to emphasize more physical literacy focusing on motivational and lifelong PA. ⁹ To improve nutrition balance and increase participation in regular PA, the work-version of "Green Book of Nutrition and Physical Activity" was published in 2016. ¹⁰ A number of campaigns have been carried out to support PA.

Conclusion

The results of the present Report Card showed that there is some improvement in PA, but the proportion of Estonian children and youth who achieve the recommended levels of daily PA is still low. There is need to emphasize the influence of parents on the PA of children and youth. In addition, stronger cooperation between governmental and nongovernmental organizations is needed to develop greater intervention strategies and programs at different levels.

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