Results From Poland’s 2016 Report Card on Physical Activity for Children and Youth

Pawel Zembura, Aleksandra Goldys, and Hanna Nalecz

Background: Poland’s 2016 Report Card on Physical Activity for Children and Youth is the first assessment of child and youth physical activity (PA) in Poland using the Active Healthy Kids Global Alliance grading system. The main goal was to summarize and describe the current state of child and youth PA to increase awareness and surveillance. Methods: The systematic methodology that underpins the Active Healthy Kids Canada Report Card was adapted and applied to the Polish report card. The best available data were consolidated, reviewed by a group of experts, and used to assign the letter grades to 9 core PA indicators on a scale ranging from A (highest) to F (lowest). Results: The 9 indicators were graded as such: 1) Overall Physical Activity (D), 2) Organized Sport Participation (C), 3) Active Play (INC), 4) Active Transportation (C), 5) Sedentary Behaviors (D), 6) Family and Peers (C), 7) School (B), 8) Community and the Built Environment (C), and 9) Government Strategies and Investments (C). Conclusions: The final grades show a strong role of school in providing PA for children and youth in Poland. However, promotion of school-based sport participation appears to be insufficient by itself to sustainably promote PA in this group.

Keywords: sedentary, physical education, sport, active transportation

According to Inchley and colleagues, physical activity (PA) of Polish children and youth might be considered average in comparison with their European counterparts, meaning that just a small percentage meet recommendations regarding PA and sedentary behaviors (SB). The last few years brought greater public awareness of this issue and new, specific investments into PA in Poland. Policy-makers shifted significantly from focusing on a competitive and professional sport model to sport for all and PA in public health. Several large governmental interventions were established in 2014 under Sport of All Children Program, all of them with an aim of increasing PA levels among children and youth. Few key indicators from the recently constituted Polish Sport Development Program 2020 refer to PA in children and youth. On the other hand, this recent interest has yet to translate into availability of data, new evidence in the area, or better youth energy expenditure performance.

Given these factors, participation in the Active Healthy Kids Global Alliance (AHKGA) might be viewed as a natural step toward enabling a wider range of entities from public, nonprofit, and business sectors become more engaged in creating change in the PA behavior. Furthermore, developing the Report Card will help practitioners, policy-makers and the public to acquire knowledge about the current state of PA in Polish children and youth. The AHKGA is an international network of researchers, professionals and stakeholders working together to foster PA. The Active Healthy Kids (AHK) report cards are national summaries of the best available evidence across multiple indicators related to PA, the methodology of which is rooted in The Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth. The host organization of the development and dissemination of Poland’s Report Card is v4sport Foundation—an organization devoted to supporting the sport sector.

The main purpose of this article was to summarize the results of the inaugural 2016 Polish Report Card. A range of high quality academic and nonacademic sources (especially governmental reports ordered by the Polish Ministry of Sport and Tourism) was used to provide the evidence base, with a vast majority of the data gathered between 2013 and 2015. However, in the absence of more recent data, and for the purpose of analyzing time trends, some earlier data were also included. This article comprehensively summarizes and diagnoses child and youth PA behaviors in Poland and acts as a common knowledge base for future programs, initiatives and policies.

Methods

The 2016 Active Healthy Kids Poland Report Card was produced by a small Research Work Group (RWG) comprising the 3 authors of this article. The development of the Report Card was coordinated by the Social Challenges Unit at the University of Warsaw. The RWG was supported by a group of 3 experts who were responsible for data validation and grading evaluation. All the researchers from RWG were responsible for identifying key data sources and for the assessment of the indicators. The report was written by the first 2 authors and reviewed by the third author.

The 2016 Report Card includes 9 indicators related to PA in Polish children and youth: 1) Overall Physical Activity Levels; 2) Organized Sport Participation; 3) Active Play; 4) Active Transportation; 5) Sedentary Behaviors; 6) Family and Peers; 7) School; 8) Community and the Built Environment; and 9) Government. Some indicators comprised several benchmarks. The general grading scheme referred to the proportion of children meeting the defined benchmark: A, suggests Poland is succeeding with a large majority of children and youth (81% to 100%); B, succeeding with well over half of children and youth (61% to 80%); C, succeeding with
about half of children and youth (41% to 60%); $D$, succeeding with less than half, but some, children and youth (21% to 40%); and $F$, succeeding with very few children and youth (0% to 20%). If there was not enough information to confidently grade an indicator, it was marked as INC (Incomplete). The key data sources are described below.

Health Behavior of School-Aged Children (HBSC) 2014

HBSC data has been collected in Poland since 1990. The survey is conducted every 4 years. Here, we report the data from the 2013–14. The representative sample comprised of 4545 students in 3 age groups (average age: 11.6, 13.6, and 15.6 years). The study was conducted by Polish HBSC team of researchers and the Principal Investigator represented the Institute of Mother and Child in Warsaw. In addition, some of the results were compared with the published data from the HBSC study lead in 2010.

Physical Activity in Schoolchildren Aged 9 to 17 Years (PAS)

A quantitative part of this study was conducted in 2013 on 3346 school children aged 10 to 17 years old. The research was produced for the Ministry of Sport and Tourism as part of report on PA among schoolchildren. The study was run by the Institute of Mother and Child in Warsaw and was based on HBSC methodology, although it also included multiple additional elements such as environmental and family conditions of undertaking PA.

Physical Education (PE) and Sport in Public and Nonpublic Schools

A report was produced by the Supreme Audit Office as a result of an audit of the condition of physical education (PE) and sport in schools. It was conducted between 2009 and 2012. The examination was carried out in the Ministry of Sport and Tourism, the Ministry of Education, and in 43 randomly chosen schools covering different education levels. The sample included 3754 children and youth, 2811 parents, 196 PE teachers, and 100 integrated elementary education teachers.

Physical Culture in Poland in the Years 2013 and 2014

This document is regularly prepared by the Central Statistical Office and contains a set of data about Polish sport associations, organizations, sports clubs, sports club participants, and sport facilities.

Directors and Teachers’ Opinions About Physical Education Lessons

A study was conducted in 2015 by the Educational Research Institute (IBE) as part of a broader project about the quality and effectiveness of education. Three hundred schools were examined.

Study About Conditions of Undertaking Transport Activities in Poland

This study about transport activity was conducted in 2015 for the Ministry of Sport and Tourism. The representative sample consisted of 1159 people studying or working, who were 15 years or older, with relevant data available on 15- to 19-year-olds.

First, a large body of data were extracted independently by the members of the RWG. Next, the RWG collectively identified the most relevant data, which was based on sample size, representativeness, sampling method, and test-retest. Draft grades were discussed and assigned by the RWG team during several discussion meetings. The grades were independently consulted by the experts who helped identify other relevant data and commented on draft version grades. A final RWG meeting lead to the establishment of final grades.

The cover story for the first Polish Report Card was determined by the leading discourse on children and youth PA from a governmental perspective as observed by the RWG. It refers to the strong focus on PE and school sport, and less attention given to other PA opportunities.

Results and Discussion

The 2016 Polish Report Card is the first assessment of PA of children and youth using AHKGA grade system. The letter grades are presented in Table 1 and are discussed below.

The selection of the cover story (see Figure 1) refers to the unbalanced approach to PA promotion in Poland. Research and actions in this area are dominated by a school-based approach, focusing on the quality of PE classes, their attractiveness and the school environment. While this model might be considered successful given the high grade obtained for the School in the Report Card it is also considered to be one-dimensional given the low to moderate grades for the other indicators, and especially the low grade for Overall Physical Activity Levels. The cover story (“What except school? Co oprócz szkoły?”) was created to bring awareness of a shared responsibility for children and youth PA among parents, sports clubs, nonprofit organizations, and local communities.

Overall Physical Activity Levels: $D$

Overall Physical Activity Level was graded $D$. The data of 2014 HBSC study showed that 24.2% of 11- to 15-year-olds met the

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Grades According to Physical Activity Indicator in the 2016 Polish Report Card on Physical Activity for Children and Youth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator</td>
<td>Grades</td>
</tr>
<tr>
<td>Overall Physical Activity Levels</td>
<td>$D$</td>
</tr>
<tr>
<td>Organized Sport Participation</td>
<td>$D$</td>
</tr>
<tr>
<td>Active Play</td>
<td>INC</td>
</tr>
<tr>
<td>Active Transportation</td>
<td>$C$</td>
</tr>
<tr>
<td>Sedentary Behaviors</td>
<td>$D$</td>
</tr>
<tr>
<td>Family and Peers</td>
<td>$C$</td>
</tr>
<tr>
<td>School</td>
<td>$B$</td>
</tr>
<tr>
<td>Community and the Built Environment</td>
<td>$C$</td>
</tr>
<tr>
<td>Government Strategies and Investments</td>
<td>$C$</td>
</tr>
</tbody>
</table>

Note. The grade for each indicator is based on the percentage of children and youth meeting a defined benchmark: $A$ 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.
recommended 1 hour of moderate-to-vigorous PA (MVPA) per day.\textsuperscript{5} In comparison with the results obtained from 2010 HBSC study, where 20.2\% met the recommendations, a positive change was noted in 2 out of 3 age groups.\textsuperscript{5,6} Another study conducted in 2013 and using the same methodology indicated that 21.5\% of students among 10- to 17-year-olds met the recommendations.\textsuperscript{7} Substantial gender disparities in the proportion of children and youth meeting the recommendations were observed across all age groups, with such disparities increasing with age.\textsuperscript{5,7} For example, among 11-year-olds, 34.2\% of boys achieve 1 hour of MVPA every day in comparison with 26.8\% of girls, while among 15-year-olds, 25.4\% of boys and 11.1\% of girls met the recommendations, respectively.\textsuperscript{5} However, this difference was not exceptional in comparison with other countries participating in HBSC study, as well as are consistent with the body of scientific literature.\textsuperscript{1}

Organized Sport Participation: D

Organized Sport Participation was graded D. According to PAS, 18.9\% of children and youth (10–17 years) participated in organized club sport outside of school, 27.2\% take part in private lessons related to PA, and 30.6\% participate in “other” unorganized or organized activities related to PA at least once per week.\textsuperscript{7} Other data gathered from the sports clubs indicate that for every 1000 youth up to 18 years of age, 87 train in sport clubs.\textsuperscript{9}

Active Play: INC

In the PAS study, 53.7\% of 11- to 17-year-olds declared out of school meetings with their peers related to PA at least once per week.\textsuperscript{7} In the other study, 53.9\% of secondary school students declared participating in unorganized PA at least once a week.\textsuperscript{12} However, those results do not directly reflect active play, which has not yet been well defined or assessed in Poland. Given the lack of the specific recommendations for active play, the indicator was graded as INC.

Active Transportation: C

Active Transportation was graded C. The proportion of children who most frequently actively commute to and from school was used. According to the PAS, 47.4\% of 11- to 17-year-olds walk to school, while 52.3\% walk from school.\textsuperscript{7} A further 5.5\% commute to and 5.2\% from school by bicycle.\textsuperscript{7} Overall, 53\% of 11- to 17-year-olds most frequently actively commute to school and 57.5\% commute from it.\textsuperscript{7} The other report indicated that 10\% of 15- to 19-year-olds regularly travel (a few times a week, for at least 6 months a year) to school or work by bicycle.\textsuperscript{11}

Sedentary Behaviors: D

Sedentary Behavior was graded D. There are no recommendations on the maximum amount of sedentary behavior in Poland, therefore we used the HBSC 2014 recommendation of <2 hours of screen time every weekday for children and youth.\textsuperscript{5} Using this threshold, 40\% of 11- to 15-year-olds met the guideline for watching TV and films, 65.9\% for playing computer games, and 45.2\% for other uses of a computer.\textsuperscript{5} Using other data, 11- to 17-year-olds reported an average 2.5 hours of watching TV and films per day, 1.6 hours playing computer games, and 2.6 hours using a computer for another use.\textsuperscript{7} The strongest determinant of time spent on the other uses of computer and watching TV was age.\textsuperscript{5,7}

Family and Peers—Infrastructure, Support, Parental/Peer Behaviors: C

This indicator was graded C, with 51.6\% of 12- to 18-year-olds claiming that parents support their participation in PA materially, 41.4\% admitting getting emotional support, and 17.3\% receiving instrumental support.\textsuperscript{13} Other data show that 54.8\% of children and youth (10–17 years) receive strong material support, 47.8\% receive emotional support, and 22.0\% receive instrumental support.\textsuperscript{5} According to 10- to 17-year-olds, 24\% of fathers and 15\% of mothers were regularly participating in sport or are physically active at least once per week.\textsuperscript{7} In the other study, students (12–18 years) declared 40.4\% of mothers and 45.5\% of fathers being active at least from time to time.\textsuperscript{13} Furthermore, 21.2\% of 13- to 16-year-olds declared being regularly physically active with their father, 17.9\% with their mother, and 42.8\% with their siblings.\textsuperscript{7} Twenty percent of students (12–18 years) admitted being physically active with their father and 18.5\% with their mothers.\textsuperscript{13} Sixty percent of youth claimed that they feel encouraged to be physically active by their peers.\textsuperscript{7}
School—Infrastructure, Policies, and Programs: B

School was graded B. Schools in Poland are required to provide 3 (135 minutes in upper secondary schools) or 4 (180 minutes in fourth to sixth grade of elementary school and lower secondary schools) PE classes per week. A study showed that 88% of schools met this regulation and 99% of PE classes were taught by specialists. The amount of PE in the first 3 grades of elementary school partially depends on an elementary-integrated education teacher, although 89% of them declare conducting at least 3 PE classes a week. An audit conducted in 2012–2013 on behalf of the Polish government showed that on a given week 15% of elementary schoolchildren (fourth to sixth grade), 23% of lower secondary schoolchildren, and 30% of upper secondary schoolchildren youths did not do (for some reason) participate in PE lessons. The average attendance in PE counted during 3 school-years exceeded 83% of all students. According to the other source, 73.8% of 10- to 17-year-olds participated in every, or nearly every, PE class, while 10.6% took part in half or fewer during the monitored school year. Girls declared regular participation in PE less frequently. Eighty-six percent of schools offered additional sport activities to their students.6

Community and the Built Environment—Infrastructure, Policies, Programs, Safety: C

The indicator was graded C. According to the Eurobarometer study, 70% of Polish adults consider that their local area gives them many opportunities to be physically active. Fifty-nine percent of respondents totally agree or tend to agree that their local sport clubs and other sport providers offer them many opportunities to be physically active. However, 48% agreed that local authorities are not doing enough in the area of PA, while 38% disagreed with this statement. Twenty-nine percent of youth consider their local area as friendly and encouraging to be active (a combination of feeling safe and having access to both space and infrastructure), 48% felt neutral, and 23% viewed it as negative and discouraging. Consistently, 26.9% of youth consider their place of living to be problematic (dangerous). In 2012, 31% of Poles above 15 years of age declared that there is much or rather much free sport infrastructure in their local community and 78.8% considered this infrastructure to be in good or rather good condition. Since 2008, 60% of 2478 local communities have built at least 1 sporting field complex dedicated to sport for all with a special focus on children and youth participation. The building of 2604 sport facilities was followed up with the hiring of over 3400 community coaches. According to the Central Statistical Office of Poland, 76.5% of Polish schools have sport halls and 76% have sports fields.

Government—Strategies, Policies, Investments: C

The Government indicator was graded C. There is evidence of an increased strategic interest and commitment from the Polish government. Since 2014, the Polish government (Ministry of Sport and Tourism) has undertaken 4 national PA interventions aimed at children and youth under the umbrella of the Sport of All Children Program. However, only 30% to 35% of local communities took part in these programs, reaching just a small percentage of the targeted group—an estimated 6% to 8% of all children and youth. On the other hand, the programs have been regularly evaluated and have become increasingly recognized among local authorities and communities. In addition, the government undertook a wide campaign against PE exemptions aimed at parents, youth, and school headmasters. Another action from the government was to dedicate resources to sport associations to develop programs for children and youth, without competitive outcome goals. The new Polish sport strategic document reveals a comprehensive approach to increasing PA levels, with an emphasis on sport for all, specific programs dedicated to different age groups, supporting sports organizations in leading day-to-day opportunities, and developing volunteerism.

Strengths and Limitations

Members of the RWG team had the unique and recent experience of evaluating several nationwide PA research, policies, and interventions, with the goal to increase participation in PA of children and youth. Another strength of the Polish Report Card is that at least some data were acknowledged for all except 1 indicator. However, Poland’s inaugural report card has some important limitations. Limited resources led to a small RWG and the lack of possibility to engage with a broad set of stakeholders. In Poland there are no recommendations regarding the core indicators except for Overall Physical Activity Levels, so international benchmarks had to be used for grading. The RWG acknowledged crucial research gaps, which applied to nearly every indicator. First, we could not refer to almost any study including children younger than 10 years of age, meaning the information in the report card is limited to older children and youth. Second, we had no access to objectively measured PA and sedentary behavior data was limited to self-reported data that have not been examined for validity against objective measurements in Polish children and youth. Furthermore, even concerning the key indicators, the number of data sources was very limited and frequently collected using just 1 survey by the similar team of researchers. The RWG could not cross-compare these results. Third, the vast majority of data used to grade the core indicators was not collected in a planned, systematic way, apart from a single international project.

Conclusion

The first assessment of the indicators related to PA among children and youth in Poland confirms less than desirable levels of PA and SB. However, the Polish Report Card also shows several high grades, particularly for the School indicator. The relatively large amount of obligatory PE in school curricula along with nation-wide, school-rooted and monitored PA programs, and tutelage of elementary education teachers was complemented by the availability of data about the indicator. The field of Government Strategies, Policies, and Investments seemed promising, given the recently established Polish Sport Development Program 2020 containing several references to the children PA, few continued PA interventions for children and youth, and promotional campaigns about PE. On the other hand, a lack of data to assess the Active Play indicator and scarce information about the Family and Peers and Community and the Built Environment indicators is worrying. So is a lack of interest in SB and its detachment from PA in policies, which is observed from a strategic perspective. Implementation of a common framework for the systematic surveillance of children and youth PA indicators is necessary to start monitoring change over time and field work efficiency. The authors hope that the first Polish Report Card on Physical Activity of Children and Youth will not only increase awareness about PA levels and physical literacy in children and youth, but also facilitate actions to improve future PA and SB.
Acknowledgments

The authors thank the group of Experts for their contributions to the 2016 Polish Report Card. We would also like to thank Dr Grant Tomkinson from the University of North Dakota for valuable comments on the initial version of the paper.

References