Results from the Czech Republic’s 2018 Report Card on Physical Activity for Children and Youth

Aleš Gába, Lukáš Rubín, Petr Badura, Eliška Roubalová, Erik Sigmund, Michal Kudláček, Dagmar Sigmundová, Jan Dygrýn, and Zdenek Hamrik

Introduction

Regular physical activity (PA) is associated with numerous health benefits and plays an important role in disease prevention. However, the decreasing level of PA and increasing screen-time among Czech schoolchildren has been well documented in the last two decades.1,2 Physical inactivity together with sedentary behaviors increase all-causes mortality3 and has a high economic burden.4 To build effective intervention and prevention programs, it is necessary to review all available sources of evidence. Therefore, the aim of this paper is to summarize the results of the first Czech Report Card on Physical Activity for Children and Youth based on a synthesis of the most recently available evidence.

Methods

The Report Card included the 10 indicators that are common to the Global Matrix 3.0. To assess the indicator grades, a multi-level search strategy was used to find all relevant sources that provide published/unpublished data collected from 2013 through 2018. We retrieved 724 records from database search and 81 records by searching grey literature, hand searching and collecting recommended sources from national experts. After removing duplicates and after screening of all records, a total of 40 records were identified as eligible for data extraction. The data were synthesized from multiple sources and a set of benchmarks was used to assign grades for all indicators. The grading framework and benchmarks used are common for all countries participating in Global Matrix 3.0. The main sources were studies that were part of the Health Behaviour in School-Aged Children survey (HBSC), International Physical Activity and the Environmental Network (IPEN) study, research projects funded by the Ministry of Education, Youth and Sports and Czech Science Foundation, and surveys supported by the Czech School Inspectorate (CSI) and Czech Olympic Committee. Final grades were assigned upon consensus of all members of the national research work group (Table 1).

Results and Discussion

Overall PA in Czech children and youth was observed to be inadequate, with high rates of excessive screen-time and low numbers of children and youth spending time in unstructured/unorganized play. On the other hand, some grades indicated promising foundations to build on in future. They are represented, for instance, by a relatively high number of children and youth participating in organized sports and/or PA programs, or generally PA-friendly setting (e.g., family, school, and built environment). Grasping these opportunities could improve current unsatisfactory state of overall PA level among Czech children and youth.

This was the first time the Czech Republic became involved in the Global Matrix project (Figure 1). The data retrieved enabled to assign grades to all 10 indicators. However, some data were missing for a few benchmarks, which could be indicative of future research directions. In addition, most of the data used for compiling the Report Card were based on self-report assessment tools.

Figure 1 — Czech Republic’s 2018 Report Card cover.
A higher proportion of objectively measured or triangulated data could enhance the quality of information synthesized.

**Conclusion**

There is ample evidence that Czech children and youth are insufficiently active, and the prevalence of physical inactivity and excessive screen-time has increased in both sexes during the last two decades. Thus, PA in childhood and adolescence should be promoted intensively and effective intervention and prevention programs are needed.

**Acknowledgements**

The authors wish to thank Petra Hiklová, Aleš Jakubec, Aleš Suchomel and Marie Lipusová for their assistance during development of the Report Card.

**References**

