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

Arunas Emeljanovas, Brigita Mieziene, Rita Gruodyte-Raciene, Saulius Sukys, Renata Rutkauskaite, Laima Trinkuniene, Natalija Fatkulina, and Inga Gerulskiene

Introduction

Research reveals worsening trends for physical activity (PA) and physical fitness in Lithuanian school-aged children.^{1,2} Lithuanian youth are among the least active in the context of other European countries.¹ School-aged children's physical fitness is constantly declining, with some aspects of physical fitness declining by as much as 50% during the last two decades,² which can lead to earlier onset of health problems, decreased quality of life and increased financial burden on the society. The development of PA Report Cards, which are updated annually or bi-annually in many countries are a good way to synthesize data. This is the first time it has been done in Lithuania and therefore, the aim of this paper is to present a brief summary of the results of the 2018 Report Card. Grades were based on the available national surveys, reports, peer-reviewed literature, and gray literature such as government and nongovernment reports and online content.

Methods

The 2018 Report Card included the 10 core PA indicators, which represents behaviors (Overall PA, Organized Sport and PA, Active Play, Active Transportation, and Sedentary Behaviors), settings and sources of social influences (Family and Peers, School and Community and Environment), strategies and investments (Government) and health related (physical fitness). Data from multiple sources were used to inform the grades in accordance with common benchmarks, and all grades were agreed upon within the national Report Card development team.

Relevant data from 2014 to 2018 was used. The Report Card data was mainly based on national representative sample surveys (WHO standardized Survey (Lithuanian COSI study)³; HBSC survey 2013/2014⁴; WHO European Childhood Obesity Surveillance Initiative),⁵ national reports (Standardized questionnaire of Lithuanian Institute of Hygiene⁶; Special report Eurobarometer on Sport and Physical Activity)⁷; nationally representative studies² and smaller cross-sectional studies.^{8,9,12}

Results and Discussion

In Lithuania there is good nationally representative data for Overall PA, Organized Sport and PA, Sedentary Behaviors, Active Transportation and Physical Fitness. However, this data shows that there is a lot of space for improvement, because many children and

adolescents still do not meet the recommendations for PA and sedentary behavior or have low physical fitness (Table 1). Family and Peers, School and Community and Environment are based mostly on smaller peer-reviewed cross-sectional studies, which indicates the need for for national level surveillance for these indicators. The indicator Active Play received a grade of incomplete, because data exists only for 6-9 year-old children, which shows the need for more research in other age groups. Lithuania's 2018 Report Card's front cover is displayed in Figure 1.

Conclusion

Many PA indicators in Lithuanian children and youth show that actions need to be taken to improve the current situation. Although in Lithuania policy agenda, policy formation, policy

Figure 1 — Lithuania's 2018 Report Card cover.

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

Indicator	Grade	Rationale
Overall Physical Activity	C-	33% and 60.5% of primary school children accumulate 1-2 hours/day and >2 hours/day of moderate to vigorous physical activity (MVPA), respectively. <30% and <20% of adolescent boys and girls, respectively accumulate >60 minutes of MVPA daily. ^{3,4}
Organized Sport Participation	C	50 to 70% of primary school children participate in sports or dance class twice per week. Exercise-based extracurricular activities at secondary schools are chosen by 23.4% of school-aged children. ³⁻⁵
Active Play	INC	Approximately 7.5% of 6-9 year old children play outside for 2 hours/day. There is a lack of data for other age groups. ⁵
Active Transportation	C-	45% of primary school children use active transport to school and 57.9% from school. The majority (84%) of children and adolescents (aged 11-13 years) commute to and from school on foot. ^{3,5}
Sedentary Behaviors	C-	On average, 6-9 year old children spend 2.6 hours per day on screen time. >50% and between 40-51% of adolescents spend ≥2 hours/day watching TV and using the computer to play games during their free time, respectively. ^{4,5}
Physical Fitness	C+	For endurance 11-18 year old boys and girls are at the 28.57th and 38.57th percentile, respectively, using the European reference standards. For other indicators (lower body muscular power, upper body muscularendurance, and lower body muscular endurance) 42.86% and 41.42%, of boys and girls, respectively are above the 50th percentile. ²
Family and Peers	D	37 to 40% of parents meet the Global Recommendations for physical activity. Parental involvement in physical activity together with their children varies from 2.9 to 45.8%. 54.8% of adolescents aged 15-17 years state that they are often active together with their peers. ^{8,9}
School	C+	Lithuania does not have Official Active School Policies on the legislative level. Physical education in all Lithuanian schools (except primary schools) is taught by a physical education specialist. All schools in Lithuania offer physical activity opportunities (in addition to physical education), but not all children choose to participate. ^{10,11}
Community and Environment	C	50% of parents agree that their overall neighborhood environment is supportive of physical activity and 60% reported that their environment is safe. 73% of municipalities implement health promotion activities/programs. ^{3,12}
Government	C	The Ministry of Education and Science (2015) recommend the promotion of organized physical activity during school breaks, and all schools must have at least one break per day which is at least twenty minutes long. There is the Physical Education and Sports Support Fund, where all government organizations and NGOs in the field of sports and physical activity may apply to receive funding to finance their activities.

implementation, policy evaluation and decisions about the future regarding PA are discussed at the governmental level, these issues are still episodic, lack consistency, and there is no clear policy for PA (promotion) in school-aged children (and society in general). National recommendations for increasing PA and reducing sedentary behavior are also still missing. Attention should be focused on strengthening physical fitness at the national level. Finally, municipality level strategies and actions to encourage schools, communities, families and neighborhoods to get more involved in exercise and PA are needed.

References

- Kalman M, Inchley J, Sigmundova D, et al. Secular trends in moderate-to-vigorous physical activity in 32 countries from 2002 to 2010: a cross-national perspective. *Eur J Public Health*. 2015;25(suppl 2):37–40. doi:10.1093/eurpub/ckv024
- Vencunus T, Emeljanovas A, Mieziene B, & Volbekiene V. Secular trends in physical fitness and body size in Lithuanian children and adolescents between 1992 and 2012. *J Epidemiol Community Health*. 2017;71(2):181–187. doi:10.1136/jech-2016-207307
- Zaltauskė V, Petrauskienė A. Associations between built environment and physical activity of 7-8-year-old children. Cross-sectional results from the Lithuanian COSI study. *Medicina (Kaunas)*. 2016;52(6):366–371. doi:10.1016/j.medici.2016.11.002
- Inchley J, Currie D, Young T, et al. *Growing up unequal: gender and socioeconomic differences in young people's health and well-being. Health Behaviour in School-aged Children (HBSC) study: international report from the 2013/2014 survey*. WHO Regional Office for Europe. 2016.
- Wijnhoven TM, van Raaij JM, Yngve A, et al. WHO European Childhood Obesity Surveillance Initiative: health-risk behaviours on nutrition and physical activity in 6-9-year-old schoolchildren. *Public Health Nutr*. 2015;18(17):3108–3124. doi:10.1017/S1368980015001937
- Institute of Hygiene. *Lifestyle study of schoolchildren. Report-summary 2016*. [Higieno sInstitutas. Mokyklinio amžiaus vaikų gyvenenostyrimas. 2016. rodiklių suvestinė-ataskaita.]
- Special Eurobarometer 472 - December 2017 "Sport and physical activity"* Report. 2017. doi:10.2766/483047
- Sukys S, Majauskienė D, Cesnaitienė VJ, & Karanauskienė D. Do Parents' Exercise Habits Predict 13–18-Year-Old Adolescents' Involvement in Sport? *J Sports Sci Med*. 2014;13(3):522–528.
- Česnaitienė V, Šukys S. *Physical activity, socialization and physical education in Kaunas region and Greece Atic region*. Report. 2014.
- Lithuanian Ministry of Education and Science. Education management information system. <http://www.svis.smm.lt/>.
- Lithuanian Centre of Non-Formal Youth Education. Assessment of non-formal education of children: questionnaires review and analysis. https://www.lmnc.lt/uplfiles/nvs_krepselio_apklauso_duomenys_2017_1_el3c.pdf.
- Vičaitė S. & Šidagytė R. Savivaldybių visuomenės sveikatos biurų vykdomos sveikatos stiprinimo veiklos įmonėse apžvalga. *Visuomenės sveikata*. 2017;4(79):99–106.