

Results from the Active Healthy Kids Canada 2011 Report Card on Physical Activity for Children and Youth

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Abstract: The Active Healthy Kids Canada 2011 Report Card on Physical Activity for Children and Youth assesses how Canada is doing as a country at promoting and facilitating physical activity opportunities for children and youth. The aim of this brief communication is to provide a summary of the results. Twenty-three physical activity indicators were graded. The physical activity levels indicator received an “F” for the fifth consecutive year, and little improvement was seen across most indicators.

Key words: advocacy, policy, health communication, child health, knowledge translation.

Résumé : Le bulletin 2011 de Jeunes en forme Canada au sujet de l'activité physique des enfants et des jeunes présente ce que le Canada fait en tant que pays pour la promotion et la facilitation de la pratique de l'activité physique chez les enfants et les jeunes. Cette communication succincte donne un aperçu des résultats. On a attribué des notes à 23 indicateurs d'activité physique. L'indicateur des niveaux d'activité physique a reçu la cote « F » pour la cinquième année consécutive et on note peu d'amélioration dans la majorité des indicateurs.

Mots-clés : plaidoyer, politique, communication santé, santé des enfants, transfert des connaissances.

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Introduction

Though scientific evidence continues to reinforce the health benefits of physical activity for Canadian children and youth (Berkey et al. 2003; Janssen and LeBlanc 2010), physical activity remains at alarmingly low levels. Only a small percentage (7%) of Canadian children and youth meet the Canadian Physical Activity Guidelines (Colley et al. 2011b), which recommend at least 60 min of moderate- to vigorous-intensity physical activity (MVPA) on a daily basis (Canadian Society for Exercise Physiology 2011b, 2011c; Tremblay et al. 2011b). This warrants concern because many risk factors for adverse health outcomes such as cardiovascular diseases and mental health conditions are known to develop early in life (Ball and McCargar 2003; Janssen and LeBlanc 2010; Tremblay et al. 2011a). These risk factors include obesity and co-morbidities such as dyslipidemia, elevated blood pressure, insulin resistance, and mental and social health conditions (Ball and McCargar 2003; Janssen and LeBlanc 2010; Tremblay et al. 2011a).

In addition to low levels of physical activity, Canadian children and youth spend large portions of their waking

hours (62%) in sedentary pursuits (Colley et al. 2011b), which most likely include television viewing, videogame playing, and computer use (Active Healthy Kids Canada 2011). This is of concern because high doses of sedentary pursuits in children and youth are linked — independently of physical activity — to obesity and the metabolic syndrome, as well as to decreases in aerobic fitness, self-esteem, prosocial behaviour, and academic achievement (Danielsen et al. 2011; Tremblay et al. 2011a).

The lack of significant improvement in physical activity at the population level is partially explained by the fact that acceptance of new knowledge does not lead, ipso facto, to widespread implementation or improvements in healthy behaviours (Canadian Institutes of Health Research 2011). In addition to knowledge generation, knowledge translation is needed for physical activity promotion strategies to have an impact at the population level. The Canadian Institutes of Health Research (2011) defines knowledge translation as “a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the

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health care system.” To this end, Active Healthy Kids Canada (www.activehealthkids.ca), a national not-for-profit organization, has developed and released The Active Healthy Kids Canada 2011 Report Card on Physical Activity for Children and Youth (2011 Report Card), an annual update or “state of the nation” that assesses how Canada is doing as a country at promoting and facilitating physical activity opportunities for children and youth (Active Healthy Kids Canada 2011). The primary target audiences for the 2011 Report Card are public sector (e.g., physical activity promotion, sport, and health and education departments) and nongovernment organizations (e.g., charities, foundations, advocacy groups, research groups) who develop policies and programs that influence physical activity opportunities for children and youth. The media are also a target audience given the critical importance of strong media engagement for raising awareness and informing the public.

The aim of this brief communication is to provide a summary of the primary results from the long form version of the 2011 Report Card, which represents a comprehensive review of academic and nonacademic literature, as well as surveillance data (both national and regional) analyzed and (or) published in Canada in 2010 and which relates to the physical activity of Canadian children and youth. More details on the Active Healthy Kids Canada Report Card history and developmental process are published elsewhere (Colley et al. 2012).

Materials and methods

The development of the 2011 Report Card relied on strategic partnerships among four key partners with varying roles and skill sets: (i) Active Healthy Kids Canada oversaw and managed the project and orchestrated the dissemination of the Report Card; (ii) the Healthy Active Living and Obesity Research Group at the Children’s Hospital of Eastern Ontario conducted the comprehensive review of academic and non-academic literature, led the content development and review process, and was responsible for writing the long form version of the 2011 Report Card; (iii) the Research Work Group consisted of seven content experts from across Canada who were responsible for contributing data, reviewing content, and informing the grade assignment process; and (iv) PARTICIPATION contributed expertise relating to the development of a theme, cover image, and an effective media and public relations strategy.

Twenty-three indicators relating to physical activity in Canadian children and youth were organized into six indicator categories (physical activity; sedentary behaviour; school; family and peers; community and the built environment; and policy) for the 2011 Report Card, which relied on several sources of data including cycle 1 of the Canadian Health Measures Survey (CHMS) from Statistics Canada, the 2010 cycle of the Physical Activity Monitor from the Canadian Fitness and Lifestyle Research Institute (CFLRI), and the 2009 and 2010 cycles of the Canadian Physical Activity Levels Among Youth (CANPLAY) study from CFLRI. These data sources were analyzed and (or) published in 2010.

Following the data gathering and synthesis process, the Research Work Group convened to evaluate the aggregated evidence and assign grades for each physical activity indica-

tor. Key considerations included the quality of the compiled evidence, trends over time, international comparisons, and the presence of disparities (e.g., gender differences, children with disabilities, geographic differences, socio-economic differences). Each indicator was discussed until a consensus was reached using a letter grade system based on the percentage of children and youth meeting a defined benchmark or optimal scenario: A, 80%–100%; B, 60%–79%; C, 40%–59%; D, 20%–39%; F, 0%–19%; INC, incomplete data. A more comprehensive description of the methodology is available elsewhere (see Colley et al. 2012).

Results

Figure 1 summarizes the letter grades for the physical activity indicators in the 2011 Report Card. A brief discussion of the grades for a sample of the 23 indicators is provided below with full details available in the 2011 Report Card (Active Healthy Kids Canada 2011).

Physical activity

The grade of “F” for the physical activity levels indicator was informed by data from the CHMS indicating that only 7% of Canadian children and youth met the Canadian Physical Activity Guidelines (Tremblay et al. 2011*b*), which recommend the attainment of at least 60 min of MVPA on a daily basis (Colley et al. 2011*b*). Data from the CANPLAY study, which has also informed the grade since the 2007 Report Card, revealed that Canadian children and youth took an average of 11 800 steps per day in 2009–2010, which is not significantly different from the average reported in 2008–2009 (CFLRI 2011*d*). The organized sport and physical activity participation indicator was graded a “C” based on data from the Physical Activity Monitor (PAM) in which sport participation within the 12 months prior to the survey was reported by 75% of parents on behalf of their children and youth (CFLRI 2011*a*). From the same PAM survey, exclusive use of active modes of transportation to and from school was reported by 24% of parents on behalf of their children and youth (CFLRI 2011*a*). By contrast, the exclusive use of inactive modes of transportation to and from school was reported by 64% of parents on behalf of their children and youth: 24% travelled by car, 34% travelled by bus or train, and the rest travelled by mixed modes of inactive transportation (Active Healthy Kids Canada 2011). These data led to a grade of “D” for the active transportation indicator.

Sedentary behaviour

According to the most recent cycle (2005–2006) of the Health Behaviour in School-Aged Children survey (Active Healthy Kids Canada 2007), Canadian children and youth spend more than 6 h·day⁻¹ in nonschool related screen-based pursuits on weekdays and more than 7 h·day⁻¹ on weekend days, which informed the grade of “F” for the screen-based sedentary behaviours indicator. Data from the CHMS also revealed that children and youth spend an average of 8.6 h·day⁻¹ (62% of waking hours) in sedentary behaviours (Colley et al. 2011*b*); unfortunately, the precise nature of these behaviours is unknown.

Fig. 1. Grades by physical activity indicator in The Active Healthy Kids Canada 2011 Report Card on Physical Activity for Children and Youth. The grade for each indicator is based on the percentage of children and youth meeting a defined benchmark or optimal scenario: A, 80%–100%; B, 60%–79%; C, 40%–59%; D, 20%–39%; F, 0%–19%; INC, incomplete data.

Categories	Physical Activity Indicators	Grades				
		F	D	C	B	A
Physical Activity	Physical Activity Levels	■				
	Organized Sport and Physical Activity Participation	■	■	■		
	Active Play and Leisure	■				
	Active Transportation	■	■			
Sedentary Behaviour	Screen-Based Sedentary Behaviours	■				
	Non-Screen Sedentary Behaviours	INC				
School	Physical Education	■	■	■		
	Sport and Physical Activity Opportunities at School	■	■	■	■	
	School Infrastructure and Equipment	■	■	■	■	
	School Policy	■	■	■		
Family and Peers	Family Physical Activity	■	■			
	Peer Influence	INC				
Community and the Built Environment	Proximity and Availability	■	■	■	■	■
	Usage of Facilities, Programs, Parks and Playgrounds	■	■	■		
	Community Programming	■	■	■	■	
	Perceptions of Safety and Maintenance	■	■	■	■	
	Municipal Policies and Regulations	■	■			
	Nature and the Outdoors	INC				
Policy	Federal Government Strategies	■	■	■		
	Provincial/Territorial Government Strategies	■	■	■	■	
	Federal Government Investments	■				
	Provincial/Territorial Government Investments	■	■	■		
	Non-Government Strategies and Investments	■	■	■		

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School

According to the PAM survey, 77% of parents reported that schools offered physical activity or sport programs outside regular physical education classes for their children and youth, which informed the grade of “B” for the sport and physical activity opportunities at school indicator (Active Healthy Kids Canada 2011).

Family and peers

The “D+” grade for the family physical activity indicator was partially informed by the CHMS in which only 15% of Canadian adults met the Canadian Physical Activity Guidelines (Colley et al. 2011a), which recommend at least 150 min of MVPA on a weekly basis in bouts of 10 min or more (Canadian Society for Exercise Physiology 2011a; Tremblay et al. 2011b). Data from the PAM survey also informed the grade in which 80% of parents reported purchasing equipment, paying a membership or fee, or paying for coaching for their child in the 12 months prior to the survey. Sixty-four percent reported taking their child to their physical activities or sports (CFLRI 2011b).

Community and the built environment

The PAM survey informed the grade of “A–” for the proximity and availability indicator based on evidence that public facilities and programs for physical activity and sport are available locally for a large majority of Canadian children and youth as reported by 93% of parents (CFLRI 2011c).

Report card theme: the after-school period

The theme of the 2011 Report Card was the after-school period, which spans from approximately 1500 to 1800 (3–6 pm) on weekdays, and its importance for physical activity promotion. Based on the CHMS, Canadian children and youth get only 14 min of MVPA in the after-school period, with the rest of the time taken up with sedentary pursuits (107 min) or light physical activity (59 min). This small amount of time spent in MVPA in the after-school period indicates that there is substantial room for improvement in physical activity achievement at this time of day, which highlights the importance of the after-school period as a possible window of opportunity during which physical activity promotion may lead to considerable improvements in the daily physical activity of Canadian children and youth. Indeed, research suggests that the physical activity of children and youth after school has an influence on their overall daily physical activity.

The CANPLAY study reported that Canadian children and youth who played outdoors in the after-school period took approximately 2000 more steps per day than those who do not play outdoors in the after-school period (Active Healthy Kids Canada 2011). The after-school period is an obvious time when children and youth can — and should — play outdoors, as it is an unstructured time of the day and daylight is still available in most parts of the country for most of the year.

2011 grades vs. previous grades

Little improvement was seen in the physical activity of Canadian children and youth in the 2011 Report Card compared with previous years (Active Healthy Kids Canada

2011). The physical activity levels indicator remained at a grade of “F” for the fifth year in a row due to the low percentage of children and youth (7%) meeting the Canadian Physical Activity Guidelines. Organized sport and physical activity participation was given a grade of “C” for the fifth consecutive year, and active transportation was graded a “D” for the fourth consecutive year. Screen-based sedentary behaviours (formerly screen time) was graded an “F” for the third year in a row.

With the emergence of new data from the PAM survey, improvements were seen in the sport and physical activity opportunities at school indicator, which moved from a “C” to “B” grade. The family physical activity indicator improved slightly from a “D” to “D+” grade. Though the PAM survey revealed an encouraging percentage of parents providing logistical support for the physical activity of their children and youth (e.g., providing transportation to their physical activities and sports), the absence of physical activity modeling from parents as seen in the low prevalence (15%) of Canadian adults meeting the Canadian Physical Activity Guidelines prevented the family physical activity indicator from receiving a higher grade. Within the community and built environment category, the proximity and availability indicator moved from a “B” to “A–” grade as a large majority of parents (93%) reported that their children and youth live in communities where the built environment has characteristics that are conducive to physical activity and are nearby and available. Though this is encouraging, the usage of facilities, programs, parks, and playgrounds indicator continues to lag behind at a grade of “C.” Strategies that try to change how children and youth view the community and built environment may be necessary to help them become more physically active.

Several indicators in the 2011 Report Card were graded “incomplete” due to a lack of data and, therefore, highlight areas where future research needs to be directed. Non-screen sedentary behaviours, a new indicator in the 2011 Report Card, represents sedentary pursuits such as passive modes of transportation (bus, car) and sitting while socializing or studying. Unfortunately, most sedentary data available focus on the measurement of screen-based sedentary pursuits (TV viewing, computer use, videogame playing). Thus, further research is warranted. Nature and the outdoors is another new indicator that was graded as “incomplete.” Though some preliminary evidence suggests that physical activity in nature and the outdoors improves the physical and mental well-being of both adults and young people (Bowler et al. 2010), there are very little data that have quantified the time spent and quality of physical activity attained by Canadian children and youth in nature and the outdoors. Finally, though not new to the Report Card, the peer influence indicator remains at a grade of “incomplete” due to the lack of quantifiable data on the influence of friends on the physical activity of children and youth. Further research is needed in this area.

In conclusion, 23 indicators of the physical activity of Canadian children and youth were graded in the 2011 Report Card. The physical activity levels indicator was graded an “F” for the fifth consecutive year. Little improvement was seen across indicators, thus signaling the need for more work across public and private sectors to provide and facilitate

opportunities for physical activity among Canadian children and youth.

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