

## Report Card Settings and Indicators: How do the pieces of the puzzle fit together?

Those familiar with previous Report Cards will notice a re-organization of the topics covered in the 2009 version. In an attempt to clarify the relationships among the many influences and outcomes of physical activity, we have developed the above diagram. The first thing to take note of is the primary outcome: the **physical activity levels of Canadian children and youth**. The main source of information to assess physical activity levels comes from a Canadian Fitness and Lifestyle Research Institute (CFLRI) study that collects pedometer data and provides us with average number of steps taken per day and the proportion of children and youth meeting Canadian physical activity guidelines. It is important to remember that specific behaviours undertaken throughout the day have the ability to either increase or decrease the overall steps taken. Participation in organized sport and physical activity programs, active play and active transportation are all factors that contribute to the overall level. By contrast, screen time is generally a negative contributor to daily physical activity levels. The challenge with interpreting screen time is the emergence of active video gaming and its potential to shift the playing of video games, which historically has been exclusively sedentary, toward an activity that may potentially contribute to physical activity levels moving in a positive direction. This issue is discussed in more depth in the **Screen Time** section. All of these factors, including the physical activity levels, are graded in this year's Report Card.

We are also particularly interested in exploring how well various sources of influence relate to facilitating, promoting and encouraging physical activity. These influences include: school, family, peers, community and the built environment, and policy. Each source of influence is partitioned into key indicators that are graded. Indicators within each of these influences were chosen based on their potential to draw attention to key issues, and are a reflection of what data are currently available to report on in Canada. The individual characteristics (listed in the left column in diagram above) are explored as sources of variation and disparity of physical activity within each area of influence.

**The greatest change from previous Report Cards is that we are no longer grading the broad outcomes of physical activity, that is: healthy body weight, chronic disease prevention, mental health and academic achievement. The reason for this change is to direct more focus toward what the Report Card is really about – physical activity. Rather than grading the outcomes associated with physical activity, we are using them this year to provide a frame of reference for *why we should care about physical activity in children and youth*. That being said, we draw your attention to the fact that the arrow between physical activity and the outcomes goes both ways. This “chicken and egg” concept in reference to physical activity and distal outcomes is important to note and understand. In some instances, children are inactive and thus develop poor outcomes. Conversely, children may start off with a health condition that prevents or inhibits their participation in physical activity. Physical inactivity both exacerbates and results from the outcomes.**

Another change from previous years is that this year we have not included an overall grade for the Report Card. The inclusion of an overall grade in the past has led to confusion in how the information was interpreted. Therefore, the overall or main focus this year is reflected in the physical activity levels grade, as this is the key focus of the Report Card each year.

## Active Kids are Fit to Learn: Shining a light on the relationship between physical activity, learning and academic performance

In an effort to increase students’ academic performance, many schools are choosing to reduce physical education (PE) requirements and even the time allocated for recess. However, no empirical evidence has suggested that academic performance is hindered in any way by regular participation in PE and physical activity. In fact, the majority of empirical evidence suggests the opposite is true – that academic performance is improved by engagement in regular physical activity.

## Several mechanisms by which physical activity affects academic performance

A thorough review of the potential mechanisms by which physical activity and exercise improve academic performance is beyond the scope of the Report Card. Essentially, the association is mediated through improvements in cognitive or behavioural function. In animal models, physical activity enhances memory and learning, promotes the generation of new nerve cells in the brain (neurogenesis) and protects the nervous system from injury and disease. In clinical studies, exercise increases brain volume in areas implicated in executive processing, improves cognition in children with cerebral palsy, and enhances phonemic skills in children with reading difficulties. It is also possible that the link between physical activity and academic performance is indirect and via improvements in self-esteem and/or classroom behaviour and attention span.

### **Possible mechanisms by which physical activity improves academic performance**

- **Improvements in cognitive function (memory, concentration etc.)**
- **Neurogenesis**
- **Improved cerebral blood flow**
- **Enhanced neurotransmitter release and function**
- **Increased self-esteem, self-confidence and self-image**
- **Increased attention span via increased adrenalin**
- **Reduced misconduct behaviours at school**
- **Production of substances that protect delicate neurons from free radicals and oxidants**
- **Increased feelings of school connectedness**
- **Increased ability to relax**

## **Re-allocating time from academic subjects to physical education does not harm**

A thorough review of this topic area led a group of Canadian researchers to conclude that school-based physical activity, (PE instruction, free play or school sport) could “become a consistent component of physical activity to meet current guidelines for children and adolescents without impairing academic performance, even if curricular time for so-called academic subjects is curtailed.” (Trudeau F, Shephard R. Physical education, school physical activity, school sports and academic performance. *International Journal of Behavioral Nutrition and Physical Activity*. 2008;5).

Such findings are not new in Canada. A study completed in Quebec in the 1970s found that students provided with 5 hours of PE per week had a higher academic performance than their control counterparts who received only 40 minutes per week. Recently, researchers in British Columbia observed that the academic scores of students receiving more physical activity instruction per week, and therefore less academic time, remain unchanged. In fact, these data demonstrated a trend toward enhanced academic performance in the intervention group despite a reduction in academic subject curricular time. In Ontario, an examination of the effect of a comprehensive school health model on academic performance showed that increased focus on students' health in schools led to positive changes in their academic performance, as measured by Education Quality and Accountability Office (EQAO) test scores.

Research studies from around the world are observing the same trends. In California, a group of students in grades 5 and 6 were taught PE either by staff trained in PE, a trained homeroom teacher or a regular classroom teacher. Those taught by the staff trained in PE spent more time being active, had greater improvements in fitness and had smaller declines in academic performance compared to the other two groups who spent more time in academic instruction. Similarly, when 1.25 hours per day of endurance fitness training was added to the daily curriculum of a group of young Australian students, math and reading scores were not adversely affected by a substantial reallocation of curricular time in favour of PE. A follow-up study in the same population two years later revealed that the academic benefits persisted. Finally, an American study observed that Grade 6 students receiving 55 minutes or more of daily PE performed equally well in math, science and English when compared to a group spending those 55 minutes in classrooms. Cross-sectional observations have also shown positive associations between PE and academic performance. The US National Longitudinal Study of Adolescent Health showed that adolescents who were active in school were more likely to have high grades, even after adjustment for socio-economic status. A gender difference emerged in younger children (kindergarten to Grade 5) whereby higher amounts of PE were associated with academic benefit in girls; no such trend emerged in boys.

### **Physical activity and fitness are positively associated with academic performance**

In addition to the findings on PE and academic performance, there is research to suggest that physical activity and fitness are also positively related to academic performance. For example, one study found that adolescents who reported higher levels of daily exercise also reported having higher grades. Academic performance has also been positively related to directly measured physical fitness scores in children. In addition, a meta-analysis has found a positive relation between physical activity and cognitive performance (e.g., perceptual skills, intelligence quotient, achievement, verbal tests, mathematics, developmental level/academic readiness) in school-aged children.

## Being sedentary is associated with low academic performance in children

Sedentary time spent in front of screens is increasingly pervasive in the lives of children and youth. A comprehensive analysis of the media's impact on children's health, completed in November 2008, provides some critical insights into how being inactive might be impacting academic performance. Thirty-one studies evaluated media and academic performance, and 65% reported a significant association between increased media exposure and poor academic outcomes. Of the 26 studies that examined the effect of watching TV, 62% reported a strong link between greater media exposure and lower academic performance. Interestingly, the likelihood of earning a bachelor's degree (or higher) by age 26 decreased as the mean hours of TV per weekday increased between the ages of 5 and 15 years.

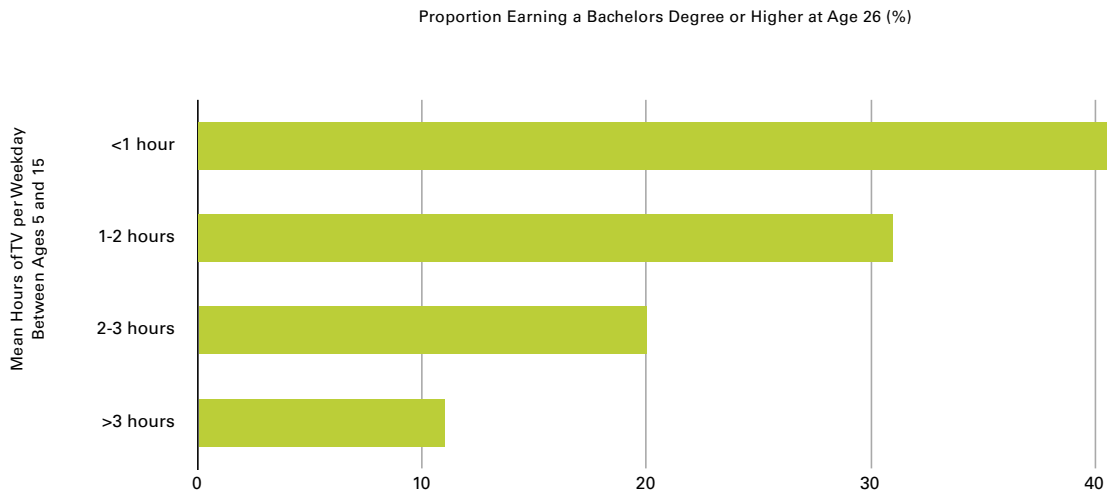


Figure 1: The impact of watching TV during childhood and adolescence on the likelihood of earning a bachelor's degree or higher by age 26.

## Conclusions

- There is now a substantial evidence base from Canada and around the world to show that participation in PE and physical activity at school does not hinder academic performance. By contrast, there is reason to suggest that physical activity can lead to improvements in academic performance.
- Previous Active Healthy Kids Canada Report Cards have raised a red flag about screen time and its association with physical inactivity, obesity, and poor physical and mental health. We are raising this red flag once again. The timely and critical review of screen time empowers us with the evidence we need as a society to take drastic action on the amount of leisure time children and youth are spending in front of television, gaming and computer screens.
- We encourage the reader to pay particular attention to the disparities in physical activity participation highlighted throughout the Report Card (e.g., among children with disabilities, children from low socio-economic status backgrounds, Aboriginal children and youth). Not only are these children and youth not receiving cardiovascular and musculoskeletal benefits from physical activity, they are also not accumulating the associated cognitive and behavioural benefits.

**This summary of current knowledge on the link between physical activity and academic performance should negate any rationale proposed to limit PE and physical activity programs in an attempt to improve academic outcomes. Parents, teachers and policy-makers concerned about decreases in study time may be “better advised to question the time their children spend on watching TV and playing computer games rather than the time that they devote to PE, physical activity or sports in school.”** (Trudeau F, Shephard R. Physical education, school physical activity, school sports and academic performance. *International Journal of Behavioral Nutrition and Physical Activity*. 2008;5).

# Physical Activity and Inactivity

Indicators	Grade	Components
Physical Activity Levels	F	<p>↑ Moving on up?</p> <ul style="list-style-type: none"> <li>The proportion of children and youth meeting the guidelines has increased from 9% in 2005/2006 to 13% in 2007/2008.</li> </ul> <p>A long way to go...</p> <ul style="list-style-type: none"> <li>Objectively measured data indicate 87% of children and youth are not meeting Canada’s physical activity guidelines of 90 minutes of physical activity a day.</li> </ul>
Screen Time	F	<p>Current national data indicate that only 10% of Canadian youth are meeting the guideline for screen time of less than 2 hours per day, and many get close to 6 hours per day. However, new regional surveys show positive findings, moving to levels closer to the guideline.</p> <p>The increase in active gaming may help to transition screen time from being a strictly sedentary activity.</p>
Organized Sport and Physical Activity Participation	C	<p>Children from the lowest income level are three times more likely to never have participated in organized activities and sports, compared to those in the highest income level.</p>
Active Play	INC	<p>There are no comprehensive and nationally representative data to adequately assess this indicator. However, only 50% of young children indicate participating in unorganized sport. Regional information shows that one-third of youth indicate doing no physical activity as part of their free time, and 60% of disabled youth report that they seldom or never play games with friends in their free time.</p>
Active Transportation	D	<p>Although nearly two-thirds of Canadian families indicate that they live within a reasonable distance to walk or cycle to school, just over one-third of children report having walked to school, and 80% report never having cycled to school, according to parent reports.</p>

Reference citations for all information below can be found in the complete long-form Report Card

The core focus of the Report Card is the **Physical Activity Level's** of Canadian children and youth. Beyond this broad picture, it is important to consider that other factors may increase or decrease this overall level. **Sport Participation, Active Transportation** and **Active Play** are three positive contributors, while **Screen Time** is, for the most part, a negative contributor. This section will outline what we currently know about the physical activity and inactivity levels of children and youth in Canada. At all times, we strive to report quality data that are as recent as possible.

### The Canadian Fitness and Lifestyle Research Institute's Canadian Physical Activity Levels Among Youth (CANPLAY)

Study measures physical activity levels of children and youth objectively, using pedometers to measure daily steps. As it is the only objectively measured physical activity data currently available on children and youth in Canada, these data are critical to providing robust information about the state of physical inactivity in this country. We can now report on 3 consecutive years from this study, which gives us an indication of any progress over time (**Figures 2 & 3**) The importance of these data became particularly evident in May 2008 when they were reported to the Federal-Provincial-Territorial Ministers responsible for Sport, Physical Activity and Recreation. Using the CANPLAY data as a baseline, the Ministers set the following first-ever national physical activity targets for children and youth aged 5 to 19 years:

- by 2015, to increase by seven percentage points the proportion of children and youth who participate in 90 minutes of moderate to vigorous physical activity over and above activities of daily living; and
- by 2015, to increase from 11,500 steps to 14,500 steps per day the average number of steps taken by all children and youth, which is equivalent to an increase of 30 minutes of physical activity per day.

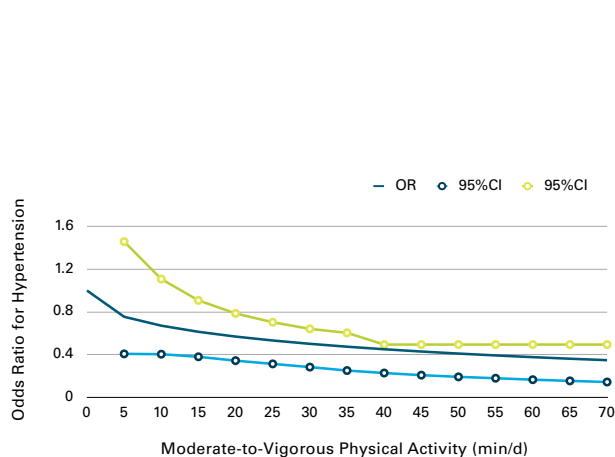


Figure 2: The mean number of steps accumulated per day from 2005 to 2008 in Canadian children and youth. (Data source: CFLRI CANPLAY Survey)

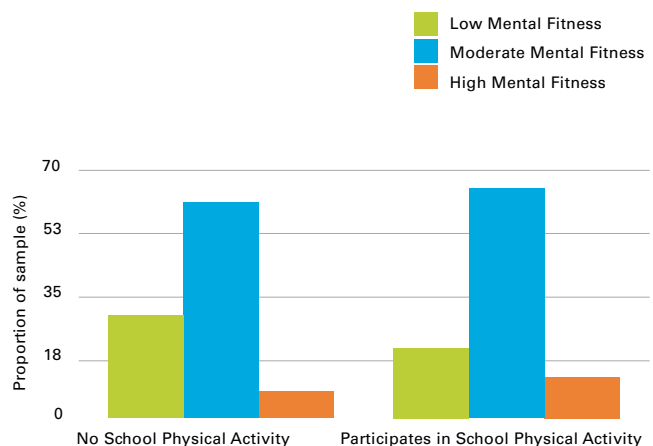


Figure 3: The proportion of Canadian children and youth meeting Canadian physical activity guidelines from 2005 to 2008. (Data source: CFLRI CANPLAY Survey)

The Deputy Ministers for each province and territory have been meeting and working collectively to establish key priorities and strategies to address these goals, and will present their plan to the Ministers in August of 2009.

Overall, the data show that the physical activity levels of Canadian children and youth are still far too low. However, there is some indication that progress might finally be on the horizon. Screen Time values are still high, but two surveys show some positive signs toward lower levels. Organized Sport and Physical Activity Participation is an area where Canada shows fairly strong participation rates. However, the presence of disparities in sport participation is concerning and tells us we still have a lot of work to do. Active Transportation rates continue to be low, but the research literature is building in this area and will soon be able to provide practical suggestions on how to overcome barriers to using active transportation. Active Play continues to be an area where we lack information; however, there is increasing momentum around understanding this important component of healthy development in children and youth.

## **Main Findings**

- Most self-reported physical activity data continue to disagree with objectively measured data.
- According to parental report, 42% of preschool-aged children surveyed in Edmonton accumulate 90 minutes of physical activity per day (SHAPE Preschool).
- 13% of Grade 10 girls and 27% of Grade 10 boys reported that they were “physically active” for 60 minutes every day (2005-2006 HBSC).
- 51% of a nationally representative sample of Canadian youth aged 12 to 17 were classified as “active” in their leisure time based on the total daily energy expenditure values (kcal/kg/day) calculated from a wide range of reported daily activities (CCHS 2007). This is equivalent to 60 minutes of daily walking.
- 55% of children in grades 5-8 from Ontario, British Columbia and Alberta were classified as “active” based on the total daily energy expenditure values (kcal/kg/day) calculated from a wide range of reported daily activities (SHAPES).
- 42% of youth in the 2008-2009 TTFM Survey reported that they accumulate at least 90 minute of physical activity everyday.
- Canada ranks 23rd out of 40 developed countries in the proportion of youth accumulating more than 2 hours or more per day of screen time – that is, Canada is among the upper half of countries with the highest proportion of youth accumulating excessive screen time (2005-2006 HBSC).

- There has been a steady increase in the percentage of children aged 4 to 5 years participating in organized sports at least once per week. However, the overall rate is still hovering around 15% (NLSCY 1994-2005).
- There has been a decline in sports participation in youth aged 15 to 18 years between 1992 and 2005, from 77% to 59% (General Social Survey, Statistics Canada).
- In 2000-01, 86% of Canadian children and youth aged 6 to 17 years reported having taken part in at least one extracurricular activity during the previous year.
- 50% of children aged 4 to 5 years participate in unorganized sport once per week. This trend decreased between the late 1990s and 2000; however, it appears to have rebounded in 2002-03 and 2004-05 (NLSCY 1994-2005)

## **Evidence of Disparities**

- Both objectively measured and self-reported data show that boys are more active than girls.
- Both objectively measured and self-reported data show that younger children are more active than older youth.
- Various data sources show that children in lower socio-economic circumstances experience lower levels of physical activity and higher levels of inactivity.
- There is strong evidence that children with disabilities are less active than children with typical development.
- 40% of Canadian youth with physical disabilities spend more than 4 hours/day watching TV.
- Approximately half of children with disabilities who participated in of the 2006 Participation and Activity Limitation Survey (PALS) took part in organized sports activities (with a coach or instructor) outside of school hours.
- The number of athletes participating in Special Olympics Canada initiatives has tripled in the past 20 years.
- 60% of disabled youth report that they seldom or never play games with friends.

## Recommendations for Action

### General

- Develop, disseminate and evaluate physical activity guidelines and recommendations for preschool children. Review and revise guidelines on a regular basis.
- Make the outdoors safe, exciting and inviting. The job of policy-makers, health practitioners, parents, teachers, concerned citizens, community leaders and programmers is to do what is necessary to encourage and facilitate children and youth to get outside more often to play.
- Promote and vote for politicians who promise – and deliver – the following:
  - Traffic calming measures/car-free streets/very low speed limits/shared space design in residential areas (especially in new housing developments) – in other words, children are more important than cars!
  - Greening of the environment – planting trees, conserving open spaces.
  - Better parks and parklands, and play-workers to supervise open spaces of all kinds and build a sense of community.
  - Daycare and after-school care facilities, properly supervised, that involve outdoor activities in exciting environments.
  - Link programs intended to help children achieve activity targets. For example, if schools help achieve 30 minutes of daily physical activity (DPA), the community (through after-school programs, sport and recreation organizations) could contribute another 30 minutes, and family settings be seen as responsible for the remainder. That is, have marketing that promotes the joint responsibility and contribution of different partners.
  - Schools that aren't frightened (or too burdened with red tape) to provide physical exercise and fun outdoor activities as part of the children's education.
  - International laws and policing to ensure that those who threaten children's safety are apprehended and their activities stopped.

- Ensure variety in the sport and physical activity programming that is offered to children and youth. Also, ensure that both competitive and recreational options are made available.
- Develop programs and messaging targeted at engaging children and youth in physical activity during the after-school period.
- Continue researching the impact of active gaming and screen time on physical activity levels.
- Develop educational messaging for parents of preschool-aged children focused on the importance of balancing physical activity and screen time.

## Disabilities

- Develop motor skill development programs for all young children, including those with disabilities to develop the fundamental movement skills necessary for lifelong physical activity participation.
- Increase the opportunities for preschool-aged children, including those with developmental and behavioural disabilities, to participate in organized sport.
- Develop and implement a media campaign to promote sport and physical activity opportunities for children with disabilities. The contact information of local disabled sport organizations should be included in this campaign.
- Establish a governing body that monitors how many children with physical disabilities are participating annually in Para-sports. Resources need to be allocated to determine how many Canadian children with physical disabilities are involved in sport during childhood, in order to appropriately distribute resources and address gaps in participation.

# School

Indicators	Grade	Components
Physical Education	C-	<p>Only 23% of schools say that only a trained physical educator teaches physical education in their school– a substantial decrease since 2001.</p> <p>There is a smaller proportion of students taking PE at the secondary level compared to the elementary level, yet far more teachers trained in PE work in secondary schools than in middle and elementary schools.</p>
Sport and Physical Activity Opportunities at School	B-	<p>Regional data from a number of jurisdictions indicate that 70% of students feel schools place some emphasis on student participation in recreational sports, and more than 80% report that their school puts some emphasis on developing positive attitudes about physical activity and self-esteem.</p>
Infrastructure and Equipment	B	<p>80-95% of schools have a gym, playground equipment, playing fields and paved play areas, with 60-75% of students and schools reporting these are in good condition.</p> <p>There has been a decrease in some types of access to baseball diamonds, skating rinks, running tracks, swimming pools, tennis courts or weight rooms.</p>
School Policy	C	<p>65% of schools surveyed report having a policy to increase physical activity among students.</p> <p>53% have fully implemented policies to provide a range of physical activity opportunities.</p> <p>46% have fully implemented policies to hire teachers with university qualifications in PE.</p>

Almost all Canadian children spend approximately 30 hours per week at school, and because of this, schools are a setting that can reach the largest proportion and the greatest diversity of children. The influence of the school setting on the physical activity levels of Canadian children and youth is an active and dynamic area of the Report Card, evidenced by a surge of new information relating to research, policy and school-based programming. Those working in the schools should be applauded for their efforts to bring the issue of physical inactivity to the forefront. The evidence base linking physical activity not only to physical outcomes but also to academic outcomes is growing. A key story of the 2009 Report Card is the link between physical activity and academic performance. There is strong and convincing evidence showing that taking time away from academics to ensure daily PE does not negatively affect academic grades. Any critics of PE now need to re-evaluate their position and acknowledge that healthy bodies equal healthy minds!

There is immense variability across Canada in the amount, type and quality of PE being delivered. Many different approaches are in place across the country. This year we have highlighted a few examples of school-level physical activity programs, policy evaluation systems and a new initiative aimed at providing evaluative data on PE. Daily Physical Activity (DPA) policy has come to the forefront, and new data from Alberta show a range of positive outcomes from DPA. Some other provinces are focusing their efforts more at the PE level with attempts to improve the quality of instruction by hiring staff trained in PE (New Brunswick) or by implementing mandatory PE policies (Manitoba). ***It is encouraging that staff trained in PE appear to be common at the secondary level. However, a concerning finding is the number of Canadian elementary schools without staff trained in PE. Childhood is a window of opportunity to establish lifestyle behaviours and exercise habits. If children are not learning the basics of movement in elementary school, how can we expect them to be motivated to maintain sport and physical activity participation as they enter adulthood?***

The data in this year's report card indicate that both DPA and quality daily PE promote and facilitate physical activity participation. We argue that one does NOT replace the other; rather, PE is a setting where children and youth learn **how to be active** so that they feel **confident and motivated** to undertake physical activity on their own outside of PE class. DPA has a completely different purpose; it provides an excellent opportunity for children to be active with their peers at school. Finally, we propose that PE is an area that is particularly important for key disparity groups in this country. Evidence shows that many girls are not feeling engaged in the way PE is currently being delivered. Children with disabilities are increasingly being included into mainstream classrooms and they are a group that has unique pedagogical needs when it comes to PE. Evidence shows the children with disabilities may obtain the greatest benefits from physical activity – from physical and emotional benefits to academic outcomes.

## Main Findings

- Most Canadian elementary and middle school students report that they take at least one PE class per week (CFLRI).
- High schools are more likely to report that almost all or all of their students receive PE from staff trained in PE compared to elementary and middle schools. Among those employing a staff person trained in PE, high schools are roughly nine times more likely than elementary schools to report that a typical student receives instruction from a physical education specialist every day (CFLRI).
- The Action! Schools BC school-based intervention significantly improved the delivery of physical activity by schools and led to improvements in physical activity levels, cardiovascular health and bone health. Additionally, although more time was allocated to providing physical activity opportunities, academic achievement did not suffer.
- The majority (83%) of schools provide intramural (within school) physical activities for students. In addition, 4 out of 5 (80%) schools provide inter-school physical activities (between schools) and other physical activity outings (CFLRI).
- Gymnasiums are the most common large facility available to Canadian schools, with almost all schools (96%) reporting having access to one (CFLRI).
- Many Canadian schools report that they share their space, facilities and equipment with the local community outside of school hours (CFLRI).
- Manitoba has made PE mandatory for all 4 years of high school and is currently the only province to take such a positive step. In addition, the grade 11 and 12 credits require students to demonstrate they are engaging in at least 30 minutes of moderate to vigorous physical activity at least 5 days a week. **Well done, Manitoba!**
- New Brunswick has recently hired more than 100 new teachers trained in PE in the Anglophone school system, where there was a shortage of teachers with PE training in comparison to the French schools in the province. **Well done, New Brunswick!**

## Evidence of Disparities

- Girls need to feel competent and supported in PE, and want classes to include more variety of non-traditional sports and activities.
- A large proportion of children and youth with disabilities are not receiving the specialized adapted PE instruction they need.

## Recommendations for Action

- Evaluate DPA and its alternatives (e.g., extending curriculum time with explicit activity targets) in all provinces where it is being implemented
- Develop and implement more PE policies like those reported in Manitoba and New Brunswick.
- Ensure that robust, ongoing assessments aimed at improvement are in place to support, monitor and evaluate the implementation of health active living policies.
- Ensure that new program developments build off, or replicate, existing successful interventions, programs and policies.
- Develop a system that highlights the stories describing evidence-informed programs and policies.
- Harmonize and standardize program assessment protocols.
- Expand PE offerings beyond traditional sports to include activities that can be carried out over the lifespan, and those that are of particular interest to girls. Consider introducing yoga, aerobics, martial arts, outdoor education, hiking, canoeing, etc.
- Broaden the number of children who can participate in physical activity programs by facilitating effective school community partnerships to share resources between schools and community recreation providers and child-care centres. These partnerships can enhance the delivery of PE curricula as well as intramural and after-school physical activity opportunities.

## Family and Peers

Indicators	Grade	Components
Family Environment	C+	Parents do not have a strong sense of the actual physical activity levels of their children – one regional study indicates that 88% of parents say their kids are physically active, yet objective measures indicate that 87% are not meeting physical activity guidelines. However, there is evidence to indicate that parents are working to ensure their kids are active through encouragement, financial support, transportation and volunteering.
Peer Influence	INC	While there are some interesting findings with respect to not enough information at this time to assign a grade.

All previous Report Cards have examined aspects of the family environment and how they relate to physical activity in children and youth. This year, the indicators have been consolidated into one overall indicator for family. The indicator is made up of parental modeling of physical activity, parental perceptions of physical activity, and ensuring children and youth are active. An important message is that parents may often **perceive** their children are active, when in fact they are not. This disconnect is important to discuss given that many health surveys, particularly those of younger children, rely on parents' proxy reports of their children's physical activity. We also look at parental modeling of sedentary behaviour. Parents often report time as a barrier to getting their children active; however, recent data from Statistics Canada showed that many Canadian adults are spending well over 15 hours a week in front of the TV.

Previously, the Report Card has not investigated the important influence peers can have on physical activity. The influence of peers is discussed for the first time in the 2009 Report Card. Children and youth generally develop friendships based on common interests and activities and as a result, tend to spend considerable amounts of time together after school. For example, 43% of boys in grades 6 and 8 reported that they spend 4 to 5 days per week with friends after school. Among girls, this proportion was lower at about 37%. A large majority (78%) of children and youth surveyed in several Canadian provinces reported they have at least 3 friends whom they consider active. Other evidence indicates that peer engagement in physical activity contributes in a positive manner to physical activity levels enjoyment and participation. There is even research to remind us all that sometimes the most important predictor of a complex behaviour is too obvious for us to see: **that physical activity needs to be fun!**

## Main Findings

- In 2005, children's sport participation rate was 35% if no parents were involved compared to 57% if at least one parent was an active participant. When at least one parent was involved as an administrator, the children's participation rate jumped to 80%.
- Nearly 3 in 10 Canadian adults reported watching more than 15 hours of TV per week, 19% reported watching more than 21 hours per week (approximately 3 hours/day).
- Overall, 78% of students surveyed from Ontario, New Brunswick, Alberta and British Columbia say they have 3 or more friends whom they consider active (SHAPES).
- Students from Ontario, New Brunswick, Alberta and British Columbia who are more active themselves are more likely to report having 3 or more friends whom they consider active (SHAPES).

## Evidence of Disparities

- Adult screen time values are higher among recent immigrants, families of low socio-economic status and those who are unemployed.
- Boys are more likely to report receiving peer support for physical activity than girls. Peer support appears to be particularly critical for physical activity engagement in girls.

## Recommendations for Action

- Promote active time as quality family time to help combat the perceived barrier of lack of time.
- Encourage families to support and engage in regular physical activity pursuits of interest to the entire family.
- Encourage families to experiment with different physical activities proposed by children and youth, and not be constrained to traditional family physical activities.
- Continue to promote screen-free weeks and within this promotion provide suggestions of what families can do together, and what children and youth can do with their friends to be active.
- Lobby politicians, daycares, schools, youth groups, etc., to gain commitment for making a contribution to ensuring children and youth meet Canadian Physical Activity Guidelines. All caregivers and social support groups have a role to play in encouraging and supporting children and youth to make active choices in all of their daily activities.
- Support parents of children with disabilities to reduce their stress and provide the children themselves with opportunities to be active.
- Design physical activity programs for pre-teens and teens that include social components/ include social events at the same time.
- Develop and promote girls-only programs to increase skills and feelings of self-efficacy, and involve social support from peers and other significant others.
- Develop physical activity programs for children with disabilities that involve their siblings.
- Increase youth-led, peer focused physical activity program opportunities.

## Community & the Built Environment

Indicators	Grade	Components
Proximity and Accessibility	B	<p>92% of parents surveyed feel there are adequate programs and facilities for their kids to be active locally.</p> <p>58% of Canadian municipalities surveyed offer discounted fee structures for families to help encourage and promote physical activity.</p>
Usage of Facilities, Programs, Park and Playgrounds	D	<p>Only 15% of parents report frequent use of programs and facilities, and 34% report frequent use of parks and spaces.</p>
Community Programming	B+	<p>84% of Canadian municipalities report that they offer physical activity programming or scheduling targeted towards families – an increase since 2000.</p> <p>The majority of Canadian parents also report that the programs and facilities meet the needs of their children well or very well.</p>
Perceptions of Safety and Maintenance	B	<p>For over a decade, perceptions of neighbourhood safety have remained high in parents of preschool children.</p> <p>83% of youth in Canada report that their neighbourhood is safe for younger children to play outside.</p>
Municipal Policies and Regulations	D	<p>Only one-quarter of municipalities have guidelines specifying bicycle racks at public buildings and only 20-40% indicate having specific policies requiring safe pedestrian and bicycle routes when retrofitting existing communities or developing new areas.</p>

The community and the built environment (the manufactured physical structures and infrastructure of communities) continue to play an important role in the uptake of child and youth physical activity. Factors related to the design of our communities impact the settings in which children and youth live, and ultimately have the capacity to affect their choice to be active. The evidence continues to support the impact that the built environment and community infrastructure play on physical activity behaviours. Characteristics such as the presence, accessibility and maintenance of parks and facilities, availability of community programs, safety in communities, and urban design have all been linked to child and youth physical activity levels. Canadian municipalities are making efforts to offer programming and facilities targeted at children and families, and parents and children generally report adequate accessibility to facilities and a sense of safety in the community. However, costs associated with many programs and facilities are creating barriers for families to be physically active, and these should not be ignored.

Access to and maintenance of facilities is reported as high by Canadian parents, youth and municipalities; however, the usage of facilities remains low. New data are needed to understand whether current initiatives targeting children and youth physical activity related to the built environment are having an impact on usage rates of recreation facilities and programs. Municipal policies and regulations have the capacity to act as barriers for children using facilities, yet many Canadian municipalities report the presence of by-laws or regulations that do just this. As municipalities plan for the future, policy-makers should take an interest in the design of their communities and in the extent to which they can maintain and increase accessibility of facilities and programs for physical activity in children, youth and their family.

## **Main Findings**

- 93% of Canadian municipalities surveyed with populations of 1,000 or more that offer some type of programming or scheduling to specific groups, do so for children (A Municipal Perspective on Opportunities for Physical Activity, 2004, CFLRI).
- Just over half of members surveyed reported that their municipalities offer some form of program to help residents afford the costs of physical activity programs and facilities (2009 CPRA survey).
- Physical activity participation is higher when children and youth perceive their neighbourhoods are safe. Fortunately, the majority of Canadian parents and youth feel that their communities are safe. In the HBSC survey, 83% of Canadian youth agree that their neighbourhood is safe for younger children to play outside (HBSC 2005-2006).
- The majority of members surveyed reported that their municipality has at least some guidelines in place for park and recreation safety specifically related to equipment or supervision and monitoring against strangers (2009 CPRA survey).
- Almost all parental respondents reported that all or most of their municipality's parks and playgrounds were adequately maintained to ensure the safety of their children (2009 CPRA survey).

## Recommendations for Action

- Consider universal design when designing streetscapes, parks and facilities. Designing for vulnerable populations will ensure accessibility for all populations.
- Educate municipal decision makers (urban design/planning, transportation, public health, recreation, etc.) regarding the health and environmental benefits of active transportation and being active outside for leisure, and advocate for improvements in built environment design.
- Provide further funding for research into the assessment of measurable built environment factors in order to establish usable benchmarks for the design of communities.
- Develop education programs on the use of quality assessments in community programming, such as through the HIGH FIVE® program, in order to ensure that programs meet the needs of children and youth.
- Implement evaluation of community physical activity programming to assess quality of program delivery.
- Advocate and work with municipal-level policy-makers and programmers to ensure that when by-laws are developed, consideration is given to how they may affect healthy active living.
- Encourage support for community development programs that allow for supervised but unstructured physical activity and playtime in community parks and facilities to further support community perceptions of safety.

# Policy

Indicators	Grade	Components
Federal Government Strategies and Investments	C	While there were some promising investments in sport and recreation infrastructure in 2008, the actions of the Standing Committee on Health Report from 2007 need greater attention. Federal transfer payments on sport and physical activity have dropped slightly, despite a promise of 1% of federal health funding to be directed at health promotion in 2007.
Provincial and Territorial Government Strategies and Investments	C+	The collective goal declared by Federal-Provincial-Territorial Ministers of Sport, Physical Activity and Recreation to increase physical activity levels by 2015 provides an impetus to reinforce strategies and investments, but there needs to be increased attention given to gathering data and evaluative information on these various strategies.
Industry, Philanthropic and Research Investments	B-	There has been an increase in support from philanthropic, research and industry funding sources in the area of physical activity – continued engagement and enhanced involvement of these sectors is critical to further facilitating behaviour change.

The latter half of 2008 began an economic downturn experienced like no other in more than 50 years. Few aspects of society were immune to these global changes and all aspects of our lives have faced some degree of uncertainty: governments, philanthropists and industry are intricately tied to these global shifts. Many have re-examined their priorities and seek to provide “stimulus support” to revitalize our economy and build a strong and sustainable society.

## **Movement in the right direction.**

While the Report Card’s focal indicator assesses physical activity levels among children and youth and remains at an “F”, it is imperative to note the upward trend in meeting Canada’s recommended physical activity guidelines: 9% in 2007, 10% in 2008 and 13% in 2009. This positive direction cannot be underestimated and requires urgent and sustained attention in the current economic climate. As the economy dominates the agendas of policy-makers, media and Canadians, it is important to focus on the small but incremental positive changes in achieving a more physically active child and youth population. To this end, youth physical activity must be considered worthy of a “stimulus package” as well.

As noted throughout the 2009 Report Card, research highlights the positive links between academic achievement and physical activity: such reassurances must be stressed as we move forward in these challenging times. Strong, healthy children and youth have the potential to build a solid foundation upon which a healthy, functioning society is built and sustained. While gains have been made in physical activity levels, we also need to pay particular attention to the disparities evident in the field. For example, in assessing many of the indicators, children who have disabilities or are from low socio-economic status backgrounds are at a disadvantage. For many of these disadvantaged families, the economic downturn has made it increasingly difficult to access physical activity programs. Now, more than ever, we need to be strategic in working across levels of society to foster healthy bodies and minds in our nation’s young people. Cross-sectoral partnerships and alliances are crucial in that regard, and it is important to note that while many sectors of our economy are faltering, both education and health have been relatively stable with respect to job losses and funding, thus opening opportunities for physical activity to remain on these agendas and to be pursued more diligently.

## **Current Initiative Highlights and Considerations**

Various elements of the 2009 Report Card have addressed policy concerns with respect to family and peers, school, community and the built environment. This section presents broader policy and strategic initiative developments occurring over the past year, and provides specific examples where action has occurred, and gaps to be addressed.

- Improvements have been made in government- and industry-supported social marketing campaigns.

- Federal Children’s Fitness Tax Credits have been adapted to meet the needs of lower-income families by making the credit fully refundable; provincial tax credit initiatives continue to benefit more families; however, a thorough evaluation of the uptake and effectiveness of such tax credit initiatives is required.
- The 2009 federal budget identified a new \$500 million fund over two years, to renew and build sport and recreation facilities in communities. This was a first step toward addressing the estimated \$1.5 billion infrastructure deficit and the projected \$18 billion required to meet new demands in growing communities.
- During the 2008 election, there was consensus across all political parties that Canada’s target for annual federal government spending on sport and physical activity programs be equivalent to 1% of health spending (approximately \$500 million each year); however, current federal spending for sport and physical activity programs falls well short of this realistic goal and is estimated at \$200 million annually.
- There is an increased drive from various physical activity proponents for a national physical activity policy to ensure strong policy leadership in Canada.
- While there is a Minister of State for Sport, calls for a Cabinet Minister appointment and a national centre of physical activity expertise have not been realized.
- At the provincial and territorial level, a number of innovative initiatives are being implemented utilizing multi-setting strategies (i.e., this is where public education and outreach has been managed and where government and non-government partnerships to enhance physical activity play out; however, there is inconsistency in the evaluation of strategies, or the ability to access evaluative information).
- In August 2009, the Ministers Responsible for Sport and Physical Activity will be presented with a plan of action prepared by the Deputy Ministers in each province and territory to meet targets set for increasing the number of children and youth meeting physical activity guidelines.
- Bilateral federal and provincial funding announcements have been made, directed at Aboriginal population initiatives and the facilitation of Sport Canada’s Policy on *Sport for Persons with a Disability*; however, specific implementation of these initiatives is unclear.
- Funding for research, as well as corporate and philanthropic investments in physical activity initiatives, have increased since the inception of the Report Card.

## Recommendations for Action

- Maintain the momentum in policy work that has been directed at physical activity.
- Assert physical activity as a priority again through formal responses to the Standing Committee on Health Report and the report from the Advisor on Healthy Children and Youth, as well as follow-through on the commitment to 1% of healthcare spending.
- Continue to grow the priority of physical activity beyond the sport, recreation and health ministries. Increased effectiveness in linking to the ministries of education, environment, municipal services, etc., is critical if they are to more effectively work together regarding aspects of schools, community and the built environment that can both influence physical activity and provide benefits from increased physical activity.
- Effectively evaluate physical activity strategies and initiatives at the federal, provincial, territorial and municipal levels to better assess the impact of this work.
- Maintain ongoing outreach to enhance the engagement of the corporate and philanthropic sectors in the issue of physical activity is needed.