Excerpts from Research

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| Why is Physical Activity important?  Supports developing active, outdoor learning that builds physical literacy | Page 6:  light, moderate and vigorous intensities is associated with more favourable markers of cardiovascular and metabolic health (e.g., lower blood pressure, insulin levels and waist circumference).1,2 Typically, the more intense the activity, the greater the health benefit.2 In addition to the physical benefits, research shows a positive link between physical activity and aspects of mental (e.g., better academic performance3,4), emotional (e.g., improved anxiety and depression symptoms35) and social health (e.g., improved social skills17).  The Canadian Physical Activity Guidelines for Children and Youth,5 which are based on a substantial body of evidence, recommend that 5- to 17-year-olds get at least 60 minutes of daily moderate-to vigorous-intensity physical activity (MVPA). Despite these recommendations, new data from Statistics Canada reveal that only 9% of 5- to 17-year-olds in Canada meets this target (2012-13 CHMS, Statistics Canada). This is a worrying finding given physical inactivity’s link with a clustering of cardiovascular disease risk factors (e.g., higher blood pressure, insulin and cholesterol levels).6 Additionally, physical inactivity places a significant economic burden in Canada with estimated annual costs in the billions.7-9 The importance of physical activity for children and youth remains as relevant and important as ever before.  Page 7  kids need to sit less and move more, the two lowest grades in this year’s Report Card are a D- for Sedentary Behaviours and a D- for Overall Physical Activity.  Page 8  When children are outside they move more, sit less and play longer10,11,26-33—behaviours associated with improved cholesterol levels, blood pressure, body composition, bone density, cardiorespiratory and musculoskeletal fitness and aspects of mental, social and environmental health.6,34-4**2** | **Participaction: The Biggest Risk is Keeping Kids Indoors**  **2015**  The ParticipACTION Report Card on  Physical Activity for Children and Youth |
| Inactivity Stats | Page 12  9% of 5- to 17-year-olds in Canada (14% of 5- to 11- year-olds and 5% of 12- to 17-year-olds) meet the daily recommendation of at least 60 minutes of MVPA (2012-13 CHMS, Statistics Canada).  \*moderate or vigourous physical activity  Page 14  **9% of 5- to 17-year-olds in Canada** (14% of 5- to 11-year-olds and 5% of 12- to 17-year-olds) meet the daily recommendation of at least 60 minutes of MVPA (2012-13 CHMS, Statistics Canada). This percentage has remained stable since the 2007-09 CHMS when 7% of 5- to 17-year-olds met the daily recommendation.122  **» 5% of 5- to 19-year-olds in Canada** take at least 12,000 steps every day of the week, which approximates the Canadian Physical Activity Guidelines for Children and Youth (2011-14 Canadian Physical Activity Levels Among Youth Survey [CANPLAY], Canadian Fitness and Lifestyle Research Institute [CFLRI]).12 |  |
| Risk  Supports active, outdoor learning.  Note- The Outdoor Council of Canada has a certification for educators wishing to lead groups in nature  Ten years of outdoor programming at the Palisades – we have the incident form data | Page 8  If we make injury prevention the ultimate goal of outdoor play spaces, will they be any fun? Are children safer sitting on the couch instead of playing actively outside? **We need to recognize the difference between danger and risk. And we need to value long-term health and fun as much as we value safety.**  Risk is often seen as a bad word—by parents, neighbours, care providers, insurance providers, schools and municipalities. But in play, risk doesn’t mean courting danger—like skating on a half-frozen lake or sending a preschooler to the park alone. It means the types of play children see as thrilling and exciting, where the possibility of physical injury may exist, but they can recognize and evaluate challenges according to their own ability.24,25 It means giving children the freedom to decide how high to climb, to explore the woods, get dirty, play hide ‘n seek, wander in their neighbour­hoods, balance, tumble and rough-house, especially outdoors, so they can be active, build confidence, autonomy and resilience, develop skills, solve problems and learn their own limits. It’s letting kids be kids—healthier, more active kids.  **Outdoor play is safer than you think!**  o The odds of total stranger abduction are about 1 in 14 million based on RCMP reports.43 Being with friends outdoors may further reduce this number.  o Broken bones and head injuries unfortunately do happen, but major trauma is uncommon. Most injuries associated with outdoor play are minor.44-51  o Canadian children are eight times more likely to die as a passenger in a motor vehicle than from being hit by a vehicle when outside on foot or on a bike.52-54 |  |
| Natural Playgrounds | Children are more curious about, and interested in, natural spaces than pre-fabricated play structures.86-96 Children who engage in active outdoor play in natural environments demonstrate resilience, self-regulation and develop skills for dealing with stress later in life.17,97-114  Outdoor play that occurs in minimally structured, free and accessible environments facilitates socialization with peers, the community and the environment, reduces feelings of isolation, builds inter-personal skills and facilitates healthy development.27,78,87,93,99,115-119 |  |
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| Harm of Indoors and hypervigilance | There are consequences to keeping children indoors**—** is it really safer?  o When children spend more time in front of screens they are more likely to be exposed to cyber-predators and violence, and eat unhealthy snacks.55-59  o Air quality indoors is often worse than outdoors, increasing exposure to common allergens (e.g., dust, mould, pet dander), infectious diseases, and potentially leading to chronic conditions.60-63  o In the long-term, sedentary behaviour and inactivity elevate odds of developing chronic diseases, including heart disease, type-2 diabetes, some forms of cancer and mental health problems.64-73  » Hyper-parenting limits physical activity and can harm mental health.15,74-76  » When children are closely supervised outside, they are less active.13,16,27,77-85  Outdoor play that occurs in minimally structured, free and accessible environments facilitates socialization with peers, the community and the environment, reduces feelings of isolation, builds inter-personal skills and facilitates healthy development.27,78,87,93,99,115-119 |  |
| Recommendations from the report: | Page 9  Parents: Encourage your children to engage more fully with their outdoor environ­ments in a variety of weather conditions. When children are supported to take risks, they have more fun and learn how to assess and manage risk in all areas of their lives.17,25,120  Educators and Caregivers: Regularly embrace the outdoors for learning, socialization and physical activity opportuni­ties, in various weather conditions—including rain and snow. Risky active play is an important part of childhood and should not be eliminated from the school yard or childcare centre.  School and Child Care Administrators: Choose natural elements over pre-fabricated playgrounds and paved areas—and encourage children to play in, and help design, these environments.  » Federal and Provincial/Territorial Governments: Collaborate across sectors to find ways to improve children’s access to risky active play in nature and the outdoors.  » Society: Recognize that children are competent and capable. Respect parents’ assessments of their children’s abilities and their decisions to encourage self-directed play in nature and the outdoors. Allow all children to play with and form a lasting relationship with nature on their own terms. |  |
| Physical Literacy  Note resources:  <http://passportforlife.ca/>  <http://play.physicalliteracy.ca/>  <https://www.capl-ecsfp.ca/> | Page 27  Physical Literacy Association is as follows: “Physical literacy is the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life.”181  Physical literacy has been gaining traction among physical activity stakeholders, but is not always well understood. The concept extends beyond an individual’s physical abilities and includes one’s motivation and confidence, and knowledge and understanding of physical activity.182,183  Over the past few years, several physical activity stakeholders in Canada have recognized the importance of physical literacy. A few groups have developed tools to monitor and assess the physical literacy of children. Here are examples of the more widely used physical literacy assessments in Canada:  **» Passport for Life**184 has been developed by Physical Health and Education Canada and looks at the 4 domains of physical literacy through: active participation (self-reported physical activity), living skills (confidence and competence), fitness skills (cardiovascular endurance, core strength, and dynamic balance) and movement skills (locomotor skills, upper limb movement, lower limb movement and balance).  **» Physical Literacy Assessment for Youth (PLAY)**185 has been developed by Canadian Sport for Life and focuses on the ability and confidence of a child when they perform basic movement skills (e.g., running, throwing, balance, kicking).  **» The Canadian Assessment of Physical Literacy (CAPL)**186 has been developed by HALO and is a valid and reliable physical literacy assessment for 8- to 12-year-olds.187 The CAPL examines the 4 domains of physical literacy through: daily behaviour (average daily step count, self-reported physical activity and sedentary time), physical competence (cardiovascular endur­ance, grip strength, flexibility, core strength, motor skills, body mass index percentile, and waist circumference), knowledge and understanding, and motivation and confidence.  These examples demonstrate the increasing attention that physical literacy is receiving in Canada. Given the current low levels of physical activity138 and fitness188 among children, perhaps a different approach is required to help them become more active – an approach that includes physical literacy. In support of this, prelimi­nary evidence suggests one aspect of physical literacy, high motor proficiency, in 6-year-olds is positively related to leisure-time physical activity at age 26.189 |  |
| Sedentary Behaviours  Sitting | During waking hours, 5- to 17-year-olds in Canada spend an average of 8.5 hours per day being sedentary (7.6 hours in 5- to 11-year-olds and 9.3 hours in 12- to 17-year-olds) (2012-13 CHMS, Statistics Canada).  Recommendations  Reducing screen time and using television-limiting devices are promising methods for reducing overall sedentary time.191 Limiting the number of screens available in the house, particu­larly in the bedroom, and restricting screen time near bedtime may also be effective.192,193  **» Provide parents** with the Canadian Sedentary Behaviour Guidelines and other resources as early as possible.193  **» Educators should plan** for opportunities to break up sedentary time throughout the day. |  |

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| Specifically Screen Time  [http://www.csep.ca](http://www.csep.ca/cmfiles/guidelines/csep_guidelines_handbook.pdf)  Page 6 of the guidelines:  Guidelines  For health benefits, children aged 5–11 years should minimize the time they spend being  sedentary each day. This may be achieved by  Limiting recreational screen time to no more than 2 hours per day; lower levels  are associated with additional health benefits.  Limiting sedentary (motorized) transport, extended sitting and time spent indoors  throughout the day.  For health benefits, youth aged 12–17 years should minimize the time they spend being  sedentary each day. This may be achieved by  Limiting recreational screen time to no more than 2 hours per day; lower levels  are associated with additional health benefits.  Limiting sedentary (motorized) transport, extended sitting and time spent  indoors throughout the day. | **Sedentary behaviours** such as television viewing, seated video game playing and prolonged sitting are associated with increased risks for obesity and cardiometabolic disease in children and youth.194 In light of this, the Canadian Sedentary Behaviour Guidelines were developed to provide parents and caregivers with evidence-based and age-specific daily limits on screen-time viewing.5 Some parents find these guidelines confusing because some sedentary behaviours (e.g., reading, coloring) seem to offer benefits to mental and social development.195 Indeed, new research reveals a positive link between academic-related sedentary behaviours and reading fluency in grades 1-3 schoolchildren.196  Although it is important to distinguish types of sedentary behaviours that carry some positive health benefits, research continues to clarify the negative outcomes associated with screen-based sedentary behaviours in children and youth. Negative outcomes linked to television, video game, cellphone and Internet use include disordered sleeping,192,193 higher overall levels of sedentary behaviour197 and measures related to obesity (e.g., higher body fat percentage, waist-to-hip ratio and body mass index).198-203 Longer periods of sedentary behaviour appear to be of particular concern for obesity-related outcomes. For example, the number of sedentary periods of 5-19 minutes has been linked to higher body mass index in children with low levels of MVPA.199 Given that frequent interruptions in sedentary time are associated with lowered risk for cardiometabolic risk factors,204 children and youth need to be encouraged to break up their daily sedentary time. |  |
| Curriculum | |  | | --- | | **Alberta K-12:**: 2000 (year) | | 10% total instructional time | | PE10 Three credits | | 1-9 30 min/day | | By school authorities | |  |
| The Importance of Connectedness to Nature | **Page 41**  **A recent review** of 30 studies reveals that people who are more connected to nature tend to be happier.230 The strength of the relationship is similar to other factors believed to be positively linked with happiness including income,231 marital status,232 education231 and physical attractiveness.233 Positive experiences in nature at a young age are important for fostering nature connected­ness. These experiences can influence one’s tendency to connect with nature234 and, subsequently, behaviours like time spent outdoors and MVPA.1 |  |
| Obesity  [**www.who.int/end-childhood-obesity/en/**](http://www.who.int/end-childhood-obesity/en/). | Page 46  WHO estimates that 42 million children worldwide are obese, and that this number could rise to 70 million by  2025 if current trends continue  WHO has established a Commission on Ending Childhood Obesity.237,238 |  |
| New Canadians | **Page 48**  **The Institute for Canadian Citizenship** released a new report, *Playing Together – New Citizens, Sports and Belonging*. The findings conclude that sport and physical activity provide important opportunities for new Canadians to build connections, community and a sense of feeling welcome in Canada. |  |