



Policy Paper, Series 1, No. 3

**Improving Health by Reconnecting Children
with the Outdoors:
Policy Options for Increasing Access to Nature
and the Outdoors**

Executive Summary

Ontario's Back to Nature Network is a growing and diverse group of organizations uniting to build capacity to connect children and nature in ongoing and meaningful ways through awareness-raising, the creation of resources, and the development of policy. Through policy development, the Back to Nature Network aims to positively influence policies and programs at the provincial and local level that will inspire decision makers to broaden and enhance the opportunities Ontario's children have for learning and playing in nature.

Research strongly supports the link between the healthy child development and time spent in nature. A large and diverse body of evidence reinforces the conclusion that children who regularly spend time outdoors in natural settings have diminished risks of some chronic diseases, reduced stress levels, enhanced emotional well-being, increased ability to focus and learn, and improved fitness levels

Research shows that children are spending less and less time outdoors and less time being physically active for optimum health. The average Canadian child spends close to eight hours a day in screen-based activity¹ and only 7% of Canadian children accumulate the recommended 60 minutes of moderate-to-vigorous physical activity each day. As a result, childhood obesity has reached unprecedented levels and we are seeing a sharp rise in chronic diseases such as Type-2 Diabetes, metabolic disorders and psychosocial disorders.² These serious health problems can affect longevity and quality of life, and will increase the strain on Ontario's health care system.

A meaningful solution to this issue may be right at our doorsteps. Research also shows that children engaged in outdoor pursuits are more physically active and are healthier and happier.^{3, 4} The purpose of this paper is to outline a range of policy and program options that exist at the provincial level that will have a positive effect on the health, wellbeing and learning outcomes of Ontario's children, and is intended to stimulate discussion and strategic planning on the importance of play and being physically active in nature.

¹ Active Healthy Kids Canada 2012 Report Card

² Colley et al. (2011) Physical Activity of Canadian children and youth: Accelerometer results from the 2007 to 2009 Canadian Health Measures Survey. Statistics Canada.

³ Mc Curdy et al. (2010). Using Nature and Outdoor Activity to Improve Children's Health. *Curr Probl Pediatr Adolesc Health Care*. Vol. 40:102-117

⁴ For an extensive literature review of the health and social benefits of being active in nature, please see:
Kuo, Frances E. (Ming). Parks and Other Green Environments: Essential Components of a Healthy Habitat. National Recreation and Park Association, 2010. healthybynature.ca/downloads/paper-Kuo-NRPA2010.pdf. Accessed April 2012
Godbey, Geoffrey, Outdoor Recreation, Health, and Wellness (2009). <http://www.rff.org/documents/RFF-DP-09-21.pdf>

Policy Options

1. Promote Outdoor Play

- 1.1. Join EPODE, (Ensemble Prévenons l'Obésité des Enfants – Together Let's Prevent Childhood Obesity), as recommended by the Healthy Kids Panel in *No Time to Wait: The Healthy Kids Strategy*, a report to the Minister of Health, and promote outdoor play as part of a co-ordinated, community-driven approach to developing healthy communities for children.
- 1.2. Support municipalities to develop a connected hierarchy of parks and trails, from pocket parks to larger, conservation areas, promoting active transportation and offering easily accessible parks and natural spaces in all communities.
- 1.3. Have the government officially endorse the *Ontario Children's Outdoor Charter*, and encourage and municipalities to do the same.

2. Promote Access to Nature for Health Promotion and Prevention

- 2.1. Provide medical doctors with information so that they understand the additional health benefits of physical activity in nature and encourage them to write "prescriptions" for physical activity in nature.
- 2.2. Promote and support partnerships among health, recreation and environment sectors, at provincial and local levels, to incorporate spending time in nature into Ontario's health promotion strategies.

Background

About the Back to Nature Network

In November 2008, Royal Botanical Gardens (RBG) hosted a Back to Nature conference and produced a “Back to Nature Event and Workshop Report”, which outlined short and long-term actions to create an Ontario movement to re-connect children and nature.

Supported by funding from the Ontario Trillium Foundation, the Network, led by RBG in collaboration with Ontario Nature and Parks and Recreation Ontario, has established a two-year work plan through July 2013 that will increase the capacity of organizations and educators to connect children, their families and communities to nature in a meaningful and sustained way through advocacy, education and the development of resources.

The Network now contains over 85 organizations that endorse the Network’s positioning statement:

A connection to the natural world is fundamental to all aspects of child development and is a key component to building optimal mental, emotional, social and physical health for every child. This critical link also represents a key building block for the future of a sustainable society.

Research shows that when we foster a child’s connection with nature, the child flourishes: child obesity decreases, bullying rates decrease, child injury rates decrease, while academic achievement rises, physical activity rates increase, attention spans improve, physical and cultural barriers melt away and environmental stewards of the future emerge.

More work needs to be done by our governments, our educational institutions, our communities, our families and individuals to develop and support the natural spaces and initiatives necessary for our children to thrive and the research to guide us as we make these important changes. Connecting our children to nature needs to be a provincial and national priority.

The undersigned are united in their concern about the present and future implications of this issue on the health of our children, our society and our environment.

The Network has hosted two policy development workshops, engaging stakeholders from education, environmental NGOs, recreation, parks, health, planning and government. The result of these consultations has led to the development of a series of policy papers focused on the themes of education, health, planning and development and nature in communities, under the umbrella of the new Ontario Children’s Outdoor Charter.

Access to Nature for Healthy Child Development

There is a significant body of research that highlights the myriad of benefits of children's play in natural settings. A review of the literature can be found at the Child and Nature Network website.⁵ In 2010, a comprehensive review of research from across the globe was released in the US by the National Recreation and Park Association, entitled *Parks and Other Green Environments: Essential Components of a Healthy Human Habitat*⁶ by Dr. Frances E. (Ming) Kuo. The paper presents compelling evidence that frequent access to natural, green spaces has an important role to play in human health.

Of the more than 100 scientific and medical studies that Dr. Kuo examined, she found overwhelming evidence that access to nature not only improves quality of life but it also improves health outcomes. Specifically, regular interaction with nature is a protective factor: children who learn and play regularly in nature have lower incidence of negative issues such as aggressive behaviour and lack of self-control (both indicators of poorer outcomes at school) and have better overall mental and physical health and improved learning outcomes.

Dr. Kuo sites numerous studies that show that access to nature can reduce Attention Deficit Disorder symptoms and can help reduce childhood obesity. Access to nature also contributes to:

- Enhanced cognitive abilities
- Improved academic performance
- Improved eyesight
- Improved social interactions
- Improved discipline
- Reduction in stress⁷

Ontario has an ambitious goal to reduce childhood obesity by 20 per cent over five years. If we are to meet this goal, all stakeholders, from health care professionals to families must use act now, making use of every intervention. Increasing and promoting access to nature for children is a cost-effective intervention that will not only have a positive impact on children's health, but will also improve the health of all Ontarians and build strong, vibrant communities.

⁵ <http://www.childrenandnature.org/downloads/C&NNHealthBenefits.pdf>

⁶ Kuo, Frances E. (Ming). *Parks and Other Green Environments: Essential Components of a Healthy Habitat*. National Recreation and Park Association, 2010. healthybynature.ca/downloads/paper-Kuo-NRPA2010.pdf. Accessed April 2012.

⁷ North Carolina State. *Benefits of Connecting Children with Nature*
http://www.naturalearning.org/sites/default/files/Benefits%20of%20Connecting%20Children%20with%20Nature_InfoSheet.pdf

Policy Considerations

The Back to Nature Network has produced a series of policy papers focusing on the role of nature in planning, education and health as well as the *Ontario Children's Outdoor Charter*. While these policy options are provided under different contexts and geared toward different audiences, it should be noted that all of the policy options are linked and can contribute significantly to the health and wellbeing of Ontario's children.

The research cited by Dr. Kuo clearly points to the health benefits of being in contact with nature for both physical and mental wellbeing. Nearby nature does encourage increased physical activity, which in turn contributes to health, but there are additional benefits that are not attributable only to physical activity. For example cited by Dr. Kuo, one specific study shows that exposure to nature increases immune functioning for an extended period of time. Other secondary benefits include better air quality in areas with higher ratios of greenspace, leading to fewer upper respiratory problems.

Another common theme in the research literature is the mental health benefits and social benefits of regular access to nature. The concept of resilience, which is exceptionally important for healthy child development, is also positively affected by the amount of nature in a child's environment. Greenspace helps people recover physically and mentally from various forms of trauma.

We cannot ignore this overwhelming evidence, but at the same time, we cannot change our environment overnight. For this reason, the following policy options offer low-cost options or policies that can be implemented incrementally in order to achieve the best outcomes for Ontario's children.

Objective 1: Promote Outdoor Play

Rationale

Play is universal. It is also how children learn. Play-based learning has re-emerged in the Ontario early learning curriculum. In recent years, the value of unstructured outdoor play has become a focus for advocates and researchers alike. In outdoor settings, children learn by exploring; they learn to assess and manage risk and they develop creativity. Nature is a source of diverse and multi-sensory experiences; it comes ready-made with "loose parts" that foster creativity and it provides children with the enviable opportunity to just jump in a puddle or play in the mud! If children are not exposed to natural environments in the early years, they become disconnected from the natural world, leading to Richard Louv's aptly coined "nature deficit disorder." The implications of this for the health of citizens and the health of our own planet cannot be overlooked.

Strategy 1.1 Join EPODE, (Ensemble Prévenons l'Obésité des Enfants – Together Let's Prevent Childhood Obesity), as recommended by the Healthy Kids Panel in *No Time to Wait: The Healthy Kids Strategy*, a report to the Minister of Health, and promote outdoor play as part of a co-ordinated, community-driven approach to developing healthy communities for children.

The Ontario government has committed to reducing childhood obesity by 20% by the year 2018. The research supports this as an achievable target, but only if there is collaboration and a concerted effort in a number of areas.

The report recommends that Ontario joins EPODE (Ensemble Prévenons l'Obésité des Enfants – Together Let's Prevent Childhood Obesity). This would position the government to work in collaboration with EPODE to promote a community development approach to influencing health. Within this approach, play in nature should be promoted, as the health and developmental benefits of outdoor play can increase the positive health outcomes for children.

Strategy 1.2 Support municipalities to develop a connected hierarchy of outdoor, natural spaces that promote active transportation and offer nearby nature in all communities.

Access to natural spaces will enhance all Ontario communities and have a positive impact on the health of all citizens. All levels of government should work collaboratively on joint planning to enhance access to nearby nature in all communities. Specifically, the provincial government should:

- Continue to encourage municipalities, through guidance documents like the Provincial Policy Statement, under the Planning Act, to design communities where citizens have access to different experiences in parks, natural spaces and on trails.
- Continue to include recreation, parks and culture as priorities for federal and provincial funding programs. Stakeholders should work together to ensure that all levels of government are aware of the need for investment and that innovative funding partnerships are encouraged.

Strategy Cost: Low to High Impact: High Timelines: Ongoing

Strategy 1.3 Endorse the *Ontario Children's Outdoor Charter*, and encourage municipalities to do the same.

The Back to Nature Network and Ministry of Natural Resources, along with the Ministry of Culture, Tourism and Sport, have collaborated on the development of an Ontario Children's Outdoor Charter that is focused on raising awareness of the need for children to spend more time outdoors in all facets of their lives. Due to be released in 2013, the Charter recognizes that children have the right to explore and play in the outdoors. It also outlines principles and opportunities for outdoor activity that should be fundamental to the life of any child in the Province of Ontario, many of which can be integrated into their school experience.

Objective 2: Promote Access to Nature for Health Promotion and Prevention

Rationale

Currently, there are a myriad of pilot programs that seek to improve health by educating healthcare practitioners about the health benefits of activity in nature. Health care providers need access to education that is recognized by their governing bodies about the science behind using physical activity in natural, greenspaces to enhance health outcomes for some patients. Prescriptions for physical activity have been used by physicians and public health providers, but adding the dimension of being physically active in nature can multiply the benefits of the prescription.

Strategy 2.1 Provide medical doctors with information so that they understand the additional health benefits of physical activity in nature and encourage them to write “prescriptions” for physical activity in nature.

A visit to the doctor’s office often results in a trip to the pharmacy to fill a prescription. With more children being afflicted with chronic diseases and health care costs steadily rising, there is a greater impetus to work collaboratively in order to improve health outcomes for all children. There are numerous examples in Canada and abroad of partnerships between health care providers and physical activity and recreation providers, establishing prescriptions for health. Now, with the mounting evidence of the added benefits of being physically active in nature, there are more examples of health care providers promoting physical activity in nature.

In 2011, health care professionals, academics and practitioners gathered in Vancouver for *Healthy by Nature*, a forum on the physical and mental benefits of time spent in nature. The evidence presented showed many examples from around the globe where “prescriptions for nature” had improved health outcomes for participants.⁸ For example in Washington D.C., the D.C. Park Rx is a partnership amongst pediatricians, public health, academics and private foundations. The long-term goal is not only to combat obesity and some chronic diseases like asthma, but also to promote mental health and environmental stewardship.

While there is evidence to support “writing prescriptions for nature,” there needs to be further education to support health care professionals. The evidence base does exist, but more needs to be

⁸ Kuo, Frances E. (Ming). Parks and Other Green Environments: Essential Components of a Healthy Habitat. National Recreation and Park Association, 2010. healthybynature.ca/downloads/paper-Kuo-NRPA2010.pdf. Accessed April 2012.

done to raise awareness of existing programs and approaches to increasing access to nature for improved health outcomes. While there are many ways to approach this, it is recommended that government support ongoing, accredited education and other resources for physicians on the benefits of contact with nature.

Strategy Cost: Medium

Impact: High

Timelines: Ongoing

Strategy 2.3 Promote and support partnerships among health, recreation and environment sectors, at provincial and local levels, to incorporate spending time in nature into Ontario's health promotion strategies.

Interdisciplinary partnerships are necessary in order to leverage both expertise and resources. The provincial government plays a pivotal role in fostering these partnerships, both provincially and locally. Through its grants and programs, the provincial government can set priorities for collaborative action to increase access to nature.

Strategy Cost: Low

Impact: High

Timelines: Ongoing

Recommendations

The Back to Nature Network encourages the Government of Ontario to promote access to the outdoors so that Ontario's children can reap the physical, mental and social benefits of regular contact with nature and being physically active and playing outdoors. This involves raising awareness with both the general public and also with health care providers about the benefits of regular contact with nature, while working with all stakeholders to leverage resources and coordinate efforts.