



# Unstructured Outdoor Nature Play

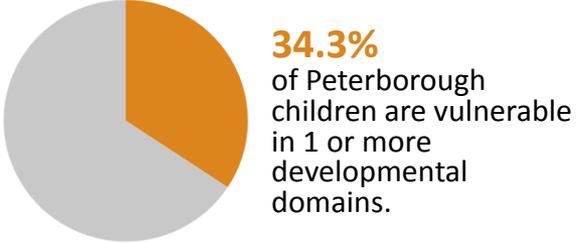
A solution-based report of child development data in the  
City and County of Peterborough





# Our Community Data

The **Early Development Instrument (EDI)** is a teacher completed survey of Year 2 Kindergarten students that measures children’s ability to meet age-appropriate developmental expectations across five general domains<sup>1</sup>.



A child is considered vulnerable in a domain if they measure in the bottom 10% of the Ontario Baseline population (collected in 2006)<sup>1</sup>.

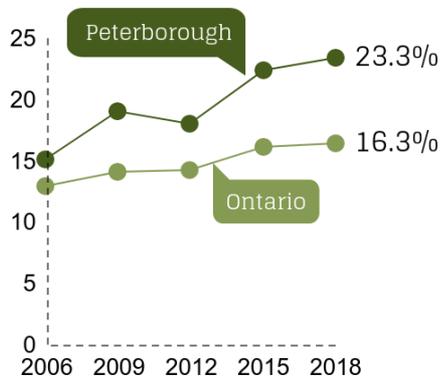
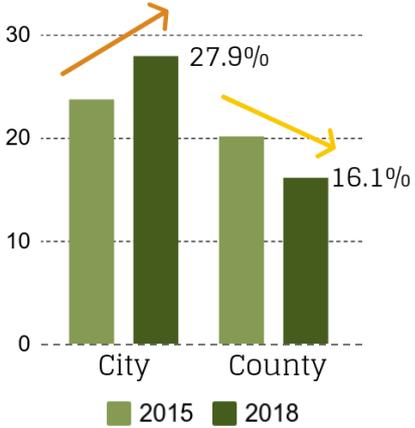
In 2018, **23.3%** of Peterborough children are vulnerable in the domain of Physical Health & Well-Being. This vulnerability is increasing over time and is higher than the Ontario average.

There are **three EDI subdomains** in which children in the City and County of Peterborough struggle the most:

**Gross and Fine Motor Skills**

**25%** meet few or none of the developmental expectations.  
**20%** meet some.  
 E.g. Ability to manipulate small objects and climb stairs.

Physical Health & Well-Being vulnerability is increasing in the City of Peterborough and decreasing in the County of Peterborough.



**Overall Social Competence**

**12%** meet few or none of the developmental expectations.  
**43%** meet some.  
 E.g. Plays and works cooperatively with various children and shows self-confidence.

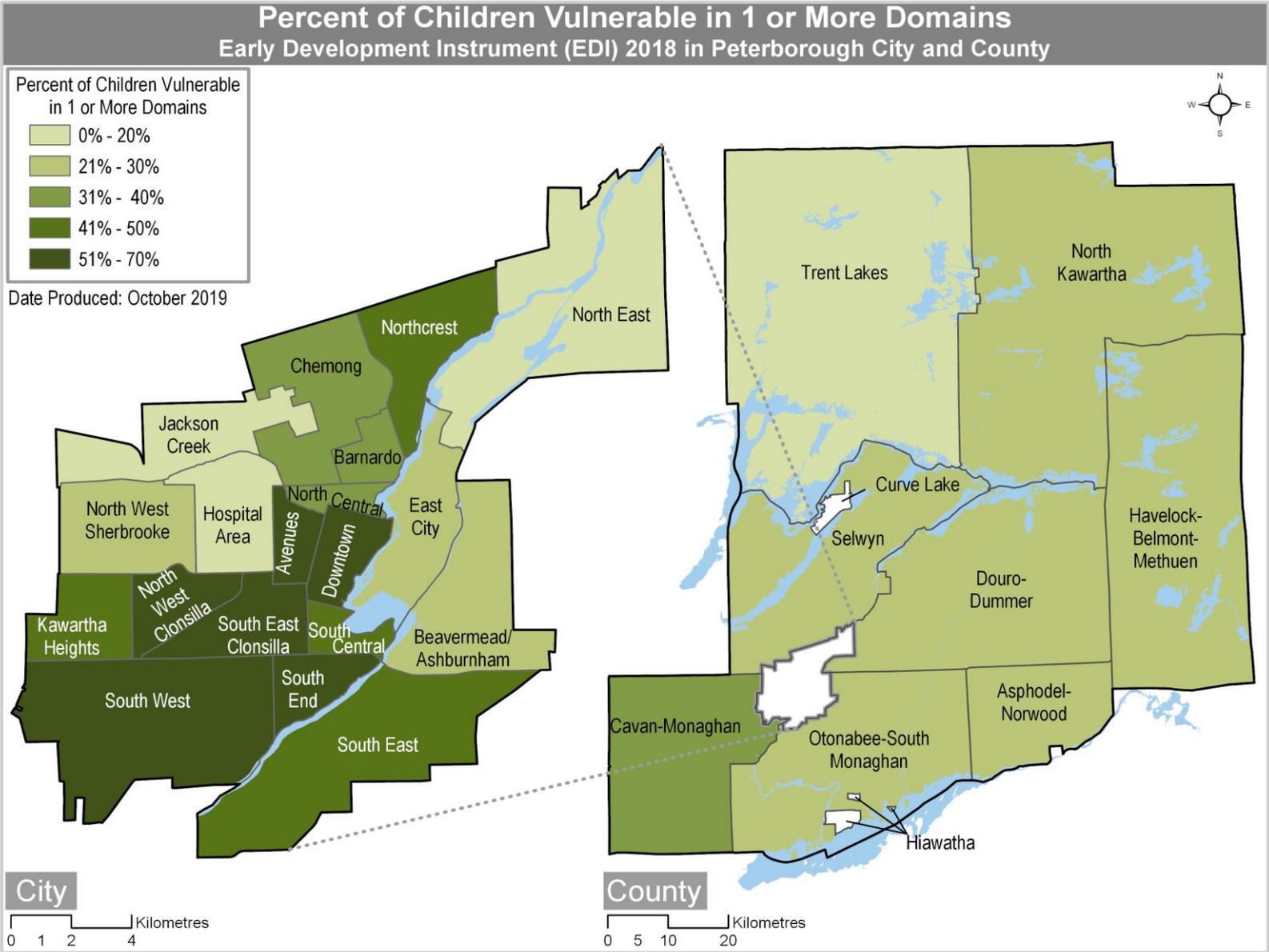
The 2018 **Kindergarten Parent Survey (KPS)** showed decreasing amounts of unstructured play in Peterborough. **72%** of kindergarten children participate in unstructured physical activities once a week or more (e.g., biking, skateboarding). This is **down from 85%** in 2012.<sup>2</sup>

**Prosocial and Helping Behaviour**

**33%** meet few or none of the developmental expectations.  
**32%** meet some.  
 E.g. Helps someone hurt, sick, or upset, offers to help spontaneously, and invites bystanders to join in.

# Maps

Mapping the EDI data in the City and County of Peterborough shows the neighbourhoods and townships with the highest vulnerability (dark green) and lowest vulnerability (light green). Areas of focus include **downtown, south, and southwest** portions of the City of Peterborough.





## Our Community Focus and Why

### Why is it important to focus on improving our EDI scores?

Research shows that vulnerability in the early years can lead to academic failure, poverty, mental health issues, behavioural problems, criminality, obesity, and a multitude of poor health outcomes.<sup>1</sup>

**Research shows that unstructured outdoor nature play is the best all-around solution for our community.**

### What is unstructured play?

Unstructured play (also known as child-led or free play) is when children play freely on their own or with other children. It emphasizes self-directed, intrinsically motivated, emergent aspects of play and is not externally directed by adults. The role of the adult is to watch or supervise at a level that is appropriate to the age and developmental stage of the child. Adults can join in with the child during unstructured physical activity but the adult is not leading the activity.<sup>3,4,5</sup>

There are unique benefits to unstructured play when combined with outdoor nature play.

### Why is unstructured play so important?

- Reduces sedentary behaviours and improves motor skills.<sup>5,6,7</sup>
- Promotes mental and emotional well-being.<sup>5,6,8</sup>
- Helps children improve their social competence, including emotional intelligence, self-awareness, empathy, and the ability to communicate effectively in situations that involve compromise and cooperation.<sup>6,8</sup>
- Supports the formation and maintenance of friendships.<sup>6</sup>
- Encourages collaboration and self-regulation.<sup>9</sup>

### Why is outdoor nature play so important?

- When children are outside they move more, sit less and play longer.<sup>10,11,12,13,14,15</sup>
- Children who engage in active outdoor play in natural environments demonstrate resilience, self-regulation and develop skills for dealing with stress later in life.<sup>5,10,16,17,18</sup>
- 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.<sup>10,15,19,20</sup>
- Research shows that kids who spend regular time in nature are happier and healthier.<sup>21</sup>

“Plentiful research in children’s well-being points to a common theme – that spending childhood time in unstructured nature play has many benefits.” ~ Pathway to Stewardship and Kinship<sup>9</sup>

# Take Action!

The things we do to improve the development of our children do not need to be monumental. Our actions can be small, but deliberate.

Remember, the best learning focuses on the child, not the teacher. Step back and observe to better understand the child's curiosities. Then provide the appropriate materials and opportunities to capitalize on their interests.

Keep in mind that the engine to learning is curiosity. A good question should invite other questions. Think about your questions as a way to encourage kids to ask "why", to wonder, to marvel at the natural world, and to promote further exploration.

Provide experiences rather than teaching. It's a wise teacher who knows when to share information, and when to let natural discovery take place.

Some ideas for action include:

## Gross and Fine Motor Skills

- Give opportunities to hold a feather, stick, rock, flower, worm, insect, frog
- Provide occasions to crawl, climb, jump, run, roll, and laugh in nature
- Give opportunities to dig in soil, wade in water, jump in leaves
- Provide materials to make and decorate mud pies or make a bark rubbing from a favourite tree

## Overall Social Competence

- Play "imagine if" – Imagine if I was a tree, rock, ant, chipmunk; Make up a story together from this new point of view
- Throw a hula-hoop into grass; How many living things can your group find inside the hoop?
- Provide opportunities for group imaginative play (e.g. loose parts, mud kitchen)

## Prosocial and Helping Behaviour

- Encourage a sense of respect for all living things
- Care for pets; What are their needs? How are we the same as them? How are we different?
- Plant a garden and watch it grow; Who else visits or eats it? How can you help it grow?

For more ideas and resources, visit the Peterborough initiative [Pathway to Stewardship and Kinship](#)<sup>9</sup>. This community project identifies beneficial experiences for each age group and provides various ways in which these "landmarks" can be achieved.

"Encouraging a child to **go outside in all weather** builds resilience, but more importantly it saves them from spending their life merely tolerating the "bad" days in favour of a handful of "good" ones – a life of endless expectations and conditions where happiness hinges on sunshine." ~ Nicolette Sowder, A Wilder Child

## Ask yourself:

How will I take action today?  
What goals will I set in order to create change?  
Who will I share this journey with?





## Endnotes

- <sup>1</sup> Offord Centre for Child Studies. *What is the EDI?*. Retrieved from <https://edi.offordcentre.com/about/what-is-the-edi/>.
- <sup>2</sup> Thayer, C. (2019). Summary Report: Kindergarten Parent Survey 2018. *City of Peterborough Social Services Division, Children's Services Program*. Retrieved from [peterborough.ca/earlylearning](http://peterborough.ca/earlylearning).
- <sup>3</sup> Peterborough Public Health. (2017). *Outdoor Playspaces for Children: An Evidence Review*. Retrieved from <https://www.peterboroughpublichealth.ca/wp-content/uploads/2018/05/2017-08-31-Outdoor-Playspaces-Evidence-Report-FINAL-1.pdf>.
- <sup>4</sup> Best Start Resource Centre. *Just the Facts*. Retrieved from <https://haveaballtogether.ca/just-the-facts/>.
- <sup>5</sup> Brussoni, M., Olsen, L., Pike, I., & Sleet, D. (2012). Risky play and children's safety: Balancing priorities for optimal child development. *International Journal of Environmental Research and Public Health*, 9, 3134-3148.
- <sup>6</sup> Canadian Public Health Association (CPHA). (2019). *Children's Unstructured Play Position Statement*. Retrieved from <https://www.cpha.ca/childrens-unstructured-play>.
- <sup>7</sup> Engelen L, Bundy AC, Naughton G, Simpson JM, Bauman A, Ragen J, et al. (2013). Increasing physical activity in young primary school children – It's child's play: A cluster randomised controlled trial. *Preventive Medicine*, 56(5), 319-325.
- <sup>8</sup> Panksepp J. (2007). Can play diminish ADHD and facilitate the construction of the social brain? *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, 16(2), 57-66.
- <sup>9</sup> Pathway to Stewardship and Kinship. (2019). *Our Goal*. Retrieved from <http://pathwayproject.ca/about/our-goal/>.
- <sup>10</sup> ParticipACTION. (2015). *The Biggest Risk is Keeping Kids Indoors: Highlight Report*. Retrieved from [https://participaction.cdn.prismic.io/participaction%2F45e84385-dc07-48a3-af13-3cd43a44a9eb\\_participaction-2015-report-card-highlight.pdf](https://participaction.cdn.prismic.io/participaction%2F45e84385-dc07-48a3-af13-3cd43a44a9eb_participaction-2015-report-card-highlight.pdf)
- <sup>11</sup> Campbell, H. (2013). *Landscape and Child Development: A Design Guide for Early Years-Kindergarten Play-Learning Environments*. Toronto: Evergreen.
- <sup>12</sup> Vanderloo, L., Tucker, P., Johnson, A., & Holmes, J. (2013). Physical activity among preschoolers during indoor and outdoor childcare play periods. *Applied Physiology, Nutrition, and Metabolism*, 38, 1173-1175.





## Endnotes

- <sup>13</sup> Smith, J., Nichols, D., Biggerstaff, K., & DiMarco, N. (2009). Assessment of physical activity levels of 3rd and 4th grade children using pedometers during physical education class. *Journal of Research, 4*, 73-79.
- <sup>14</sup> Gray, C., Gibbons, R., Larouche, R., Sandseter, E., Bienenstock, A., Brussoni, M., et al. (2015). What is the relationship between outdoor time and physical activity, sedentary behaviour, and physical fitness in children? A systematic review. *International Journal of Environmental Research and Public Health, 12*(6), 6455-6474.
- <sup>15</sup> Brussoni, M., Gibbons, R., Gray, C., Ishikawa, T., Sandseter, E., Bienenstock, A., et al. (2015). What is the relationship between risky outdoor play and health in children? A systematic review. *International Journal of Environmental Research and Public Health, 12*(6), 6423-6454.
- <sup>16</sup> Becker, D., McClelland, M., Loprinzi, P., Trost, S. (2014). Physical activity, self-regulation, and early academic achievement in preschool children. *Early Education and Development, 25*(1), 56-70.
- <sup>17</sup> Lavrysen, A., Bertrands, E., Leyssen, L., Smets, L., Vanderspikken, A., & De Graef, P. (2017). Risky-play at school. Facilitating risk perception and competence in young children. *European Early Childhood Education Research Journal, 25*(1), 89-105.
- <sup>18</sup> McArdle, K., Harrison, T., & Harrison, D. (2013). Does a nurturing approach that uses an outdoor play environment build resilience in children from a challenging background? *Journal of Adventure Education and Outdoor Learning, 13*(3), 238-254.
- <sup>19</sup> Aasen, W., Grindheim, L., & Waters, J. (2009). The outdoor environment as a site for children's participation, meaning-making and democratic learning: examples from Norwegian kindergartens. *Education 3-13, 37*, 5-13.
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- <sup>21</sup> Ontario Children's Outdoor Charter. Retrieved from <https://www.childrensoutdoorcharter.ca/>.

## Contact information

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