



Nurturing the Next Generation Strategic Directions 2018 – 2023

Family Health Division ■ Peel Public Health ■ June 2018



Table of Contents

Table of Contents	1
Message from the Director	2
A Peel Public Health Strategic Priority	3
Rooted in Four Foundations of Health	4
Environment of Relationships	4
Physical, Chemical and Built Environments	4
Nutrition	5
Healthy Growth and Development	6
Context in Peel	7
Public Health Mandate	7
Health Issues	7
Effective Intervention	10
Sample Interventions	10
Strategic Directions 2018 – 2023	12
Environment of Relationships	12
Physical, Chemical and Built Environments	12
Nutrition	13
Healthy Growth and Development	13
Rising to the Challenges	14
Appendix A	15
Text References	16
Data References	17

Message from the Director

Peel Public Health is committed to helping Peel's children and families reach their full potential. Aligning with the Region of Peel's vision, Community for Life, we want every child in Peel to be positioned to achieve lifelong health and wellbeing.

Nurturing the Next Generation Strategic Directions 2018 – 2023 outlines a path forward to realize this vision. It applies a population health approach to meeting the demonstrated needs of Peel families with young children. It is positioned to build on opportunities presented by the changing health and policy landscape in the Region of Peel, the province and the country.

Our strategy outlines distinct areas of priority for our public health work. It identifies the health outcomes we are aiming for, to improve the health status of Peel's children and their families.

Building on the Region of Peel's mission, Working with You, our strategy relies on acting collaboratively with Regional departments and other sectors. Working together, we can better address the broad range of interconnected factors that influence children's growth, development and health outcomes.

Our strategy reflects the research, analyses and dedicated work by the Family Health Division, documented in the ***Nurturing the Next Generation Foundational Report***.¹ I would like to thank our staff for their willingness to take on tough problems and stretch in new directions. By being open to change, we are improving the health of families and children in Peel.

We are proud of the ground breaking work we do, and we are ready to tackle the challenges ahead. Every family – every child – deserves our best.

Anne Fenwick
Director, Family Health

Nurturing the Next Generation

A Peel Public Health Strategic Priority

Public health interventions in the early years improve lifelong health outcomes for children.

Peel region is home to 92,670 children under six years old,^A with approximately 15,700 infants^B born each year. This presents an important opportunity to make a real difference in the long term health and social outcomes of Peel's children, the future of our community.

Nurturing the Next Generation is a theory-based, evidence-informed and data-driven strategic priority focused on four foundations of health:

- Environment of relationships
- Physical, chemical and built environments
- Nutrition
- Healthy growth and development

Together, these four foundations guide our work to improve health outcomes for families with young children. By focusing in these areas, outcomes we can expect are²:

- Positive health-related behaviours
- Physical and mental health
- Educational achievement
- Economic productivity

Nurturing the Next Generation focuses public health resources on the specific needs of families from preconception to parenting.

Goals of Nurturing the Next Generation

To support evidence-informed, population-based interventions that promote the health of families from preconception to parenting, ensuring that:

- children are raised and nurtured in an environment of responsive relationships;
- families thrive in safe and healthy communities;
- children and families enjoy healthy nutrition; and
- children experience optimal health and development.

Needs of families from preconception to preschool.

Rooted in Four Foundations of Health

Environment of Relationships

To thrive, children need stable, responsive, nurturing relationships. The environment of relationships includes the bonds between the child and their immediate family, among family members, and between the family and their networks of formal and informal supports.

Health Outcome

Within the environment of relationships, we can influence parent's and children's social, mental, and physical health.

A child's development is strongly influenced by the health and wellbeing of their *Stable, responsive, nurturing relationships.* caregivers. Caregiver wellbeing directly affects the care they can provide and the strength of the relationship with their child as their child grows.

Families with inadequate resources struggle to provide responsive care to their children, and can feel isolated and stressed.

Responsive relationships foster strong bonds that enhance health for children and their parents. Responsive parenting right from birth, good parental health and wellbeing, and parents who feel connected within their community help optimize children's health and development.

Physical, Chemical and Built Environments

Children need safe, supportive environments in which to live and grow. These include physical, chemical and built environments such as the home, child care settings, and neighbourhoods. These environments must be free of harmful toxins, promote safety and provide opportunities for plenty of play and physical activity.

Health Outcome

Within physical, chemical and built environments, we can contribute to reducing unhealthy and unsafe exposures.

Developing bodies and brains are especially susceptible to damage from toxins in the environment. Children exposed in utero or after birth to chemicals found in the environment, medications, alcohol, cigarettes or recreational drugs can experience physical and mental health problems.

A child's immediate surroundings – their home or child care environments – need to be safe and secure. Moreover, neighbourhoods and communities that are walkable and encourage interaction are more likely to lead

to regular physical activity and better wellbeing for families who live there. Parks and playgrounds provide children with opportunities to gain important physical literacy skills which contribute to lifelong physical activity.

Nutrition

Children need healthy food and adequate nutrition at every stage of development. This includes the amount and types of food children are offered, the nutrients available, and the attitudes and beliefs about food that surround children. For low income families, food security is a critical concern. These families need support to ensure their children have access to nutritious food.

Health Outcome

Within the nutrition foundation, we can influence optimal growth and a healthy weight.

Children first receive nutrients in utero. Even before birth, the nutritional status of a mother before and during pregnancy influences her child's development.

After birth, breast milk with a vitamin D supplement is an optimal food for babies. It positions them to achieve appropriate growth, weight and developmental

Healthy food and adequate nutrition.

milestones. Breastfeeding as much as possible for as long as possible has health benefits for both mother and baby. However, when needed, babies can be fed safely prepared, iron-fortified infant formula.

At about six months of age, babies need the addition of iron-rich solid foods. Later, after babies have mastered purees and finely chopped foods, the goal is to transition them to family foods that can be enjoyed during family mealtimes.

As a child enters the toddler and preschool stages, most food will continue to be provided by the family, although many children will also have food provided in child care settings. Helping families and caregivers access consistent, usable

Foundation for optimal growth, development and weight.

information and advice, and develop the skills and resources to build lifelong, healthy eating habits and attitudes toward food, contributes to optimal growth and development of the child.

Ensuring young children have access to the right foods, at the right time and in the right eating environments, creates a foundation for optimal growth, development and weight. Peel Public Health is seen by parents and early years providers as having special expertise in the area of childhood nutrition.

Healthy Growth and Development

Children need a sound physiological start. The quality of that start is affected by parental health factors, including the pre-pregnancy health of the parents, their immunization status, weight and other factors. Of special interest in Peel are the health impacts on mother and baby of high pre-pregnancy weight and gestational weight gain. Families need supports that create awareness and help mitigate future health issues.

Health Outcome

Within the healthy growth and development foundation, we can influence the health of parents before and during pregnancy, and help children achieve optimal health and development.

A sound physiological start.

All children need to be encouraged by their parents and caregivers to develop language skills, fine and gross motor skills, and physical literacy. Parents need to ensure children have minimal screen time and plenty of sleep.

Children need access to regular monitoring, and intervention when necessary. They need hearing and vision screening, dental care, and immunizations to identify problems early and prevent disease.

Regular monitoring and intervention when necessary.

Healthy growth and development, appropriately monitored and nurtured right from the start, strongly influence a child's lifelong health.

Context in Peel

Public Health Mandate

The mandate for public health in Ontario is set by the ***Health Protection and Promotion Act, R.S.O. 1990, c.H.7***,³ and outlined in the newly updated ***Ontario Public Health Standards: Requirements for Programs, Services and Accountability (2017)***.⁴ These standards ensure public health units across the province meet specific foundational and program requirements and outcomes. Provincial direction for public health programming in the early years is found in the Healthy Growth and Development standard, guideline, topic overviews and protocols.

Other relevant legislation and direction is provided by the Ministry of Children and Youth Services, the Ministry of Education, and the Board of Health.

The Board of Health is the Peel Regional Council, which has responsibilities to ensure the public health standards are met. Council also oversees the Region of Peel strategic plan, ***Community for Life: Region of Peel Strategic Plan 2015-2035***.⁵ In the Regional plan, priorities of specific importance to Nurturing the Next Generation are:

- Promote healthy and age-friendly built environments;
- Provide access to local, nutritious food sources;
- Have access to culturally appropriate services;
- Have access to services that meet client needs at every stage of life; and
- Trust that sustainability and long-term benefits to future generations are considered.

Health Issues

Peel data can help us learn more about families, as well as identify and better understand the specific health issues in our community. These data drive our actions in each of the foundations of health.

Environment of Relationships

The relationship between parent and child, as well as the connections between families and their communities, can increase or reduce stresses on families. This, in turn, affects parents' ability to respond to their children's needs.

Relationships affect ability to respond to children's needs.

In Peel, three-quarters of all families are couple families, while one-quarter are lone-parent families. Most parents with at least one child under the age of six are immigrants (68%), and about one in five (22%) immigrated to Canada less than five years ago. Peel parents are highly educated, with 72 per cent having a trade/college diploma or certificate, a university certificate or degree.^C

In Peel, couple families with two children, whose 2011 income fell below the low-income measure after-tax,ⁱ had a median annual income of \$23,030. Lone parent families with two children, whose 2011 income fell below the low-income measure after-tax, had a median annual income of \$19,050.^D As a result, 17 per cent of children under six years old live in low income households.^C

Physical, Chemical and Built Environments

Children's exposure to second-hand tobacco smoke has been the exposure of greatest concern in Peel. Despite the small numbers exposed, the health consequences of this smoke exposure are serious enough to warrant special attention. Exposure to other toxins and types of second-hand smoke are being monitored.

Exposure to second-hand tobacco smoke.

In 2016, very few (3%) pregnant women in Peel were smokers at the time of admission to hospital for birth. This was lower than in Ontario (7%).^{E1} Smoking was highest among those younger than 20 years old (11%), and those 20 to 24 years old (5%).^{E1} For pregnant women who were non-smokers, 12 per cent resided with a smoker. An additional 2 per cent resided with a smoker and were smokers themselves.^{E2}

Only 1 per cent of pregnant women in Peel reported drinking alcohol^{E2} or using drugs^{E3} during their pregnancy.

Nutrition

Breastfeeding, beginning at birth, with the appropriate introduction of solid foods at the right time, lays the foundation for healthy growth and development. In Peel, the Peel Infant Feeding Survey is used to monitor trends in infant feeding practices.

In 2016, almost all mothers (99%) reported initiating breastfeeding either in hospital or after discharge; however, only 51 per cent reported exclusively breastfeeding at the time of discharge from hospital.⁶

Breastfeeding rates gradually declined as infants grew. By six months, 67 per cent of mothers continued to breastfeed.⁶

Breastfeeding rates decline.

ⁱLow-income measure after-tax: a fixed percentage (50%) of the median adjusted household income, where "adjusted" indicates that household needs are taken into account.^D

Solid foods should be introduced at or around six months of age, when an infant shows readiness cues. Almost a quarter (23%) of infants are being introduced to solid food either too early (younger than five months) or too late (older than seven months).⁶

Solid food too early or too late.

Healthy Growth and Development

Several health issues are emerging which impact children's overall growth and development. These issues have the potential to influence children's brain development, weight, oral health and ability to be physically active. These health issues begin with mother's preconception and pregnancy health and weight. They are also influenced by the availability of and access to health and dental services.

In 2016, 33 per cent of Peel mothers entered pregnancy overweight or obese, thereby increasing risk to both mother and baby.ⁱⁱ The

Mother's preconception and pregnancy health and weight.

rate of gestational diabetes increased as maternal pre-pregnancy body mass index (BMI) category increased. For the most obese women (BMI of 40 or more), the rate of gestational diabetes was almost 2.5 times the rate of the normal weight category.^{E4}

In 2011, Canadian children aged three to five years spent an average of 3.4 hours engaging in light physical activity and 73 minutes in moderate to vigorous physical activity per day.⁷ At the same time, they spent on average 7.6 hours per day sedentary.⁸

Some of this sedentary time is screen time. In 2014, children aged three to five years spent an average of two hours per day in front of screens⁹ – double the screen time recommended in the current **Canadian 24-Hour Movement Guidelines for the Early Years (0-4 Years)**.¹⁰ Only 15 per cent of preschoolers had less than the recommended limit of one hour of screen time per day.¹¹ From 2013/14 to 2014/15, the average number of hours Canadian children aged two to 11 years watched traditional television grew by 4 per cent.¹¹

Lack of physical activity and excessive screen time.

Lack of physical activity and excessive screen time may be contributing to over 30 per cent of Ontario children aged two to five years being at risk for being overweight, or being overweight or obese.¹²

The Early Development Instrument (EDI) is a measure used to determine the developmental vulnerability of kindergarten children. In 2014/15, approximately one-third (30%) of Peel children were categorized as vulnerable on one or more domains of the EDI. This is similar to the rate in Ontario (29%).¹³

ⁱⁱ Use data with caution as 10 to 30 per cent of records were missing.

Effective Intervention

End-to-End Public Health Practice (E2EPHP) provides a comprehensive framework for addressing complex health issues. Rooted in science and based on evidence, E2EPHP represents another key public health strategic priority that supports us in implementing the most effective interventions.

Framework for addressing complex health issues.

End-to-End Public Health Practice grounds our problem-solving in knowledge about our community and the needs of our residents. It guides us in monitoring and tracking trends in data, undertaking research, applying research evidence, developing interventions specific to Peel's unique population, and robustly evaluating our actions.

Focus our problem-solving on health outcomes.

The Family Health Division has been actively applying E2EPHP methods and tools to meet the needs of Peel's children and families. Examples of this work include:

- defining health problems by completing a comprehensive data overview;
- undertaking environmental scans to better inform our Peel-specific context;
- conducting research reviews on priority issues;
- developing evidence-informed logic models to explore options; and
- identifying interventions that will be effective for our Peel population.

Sample Interventions

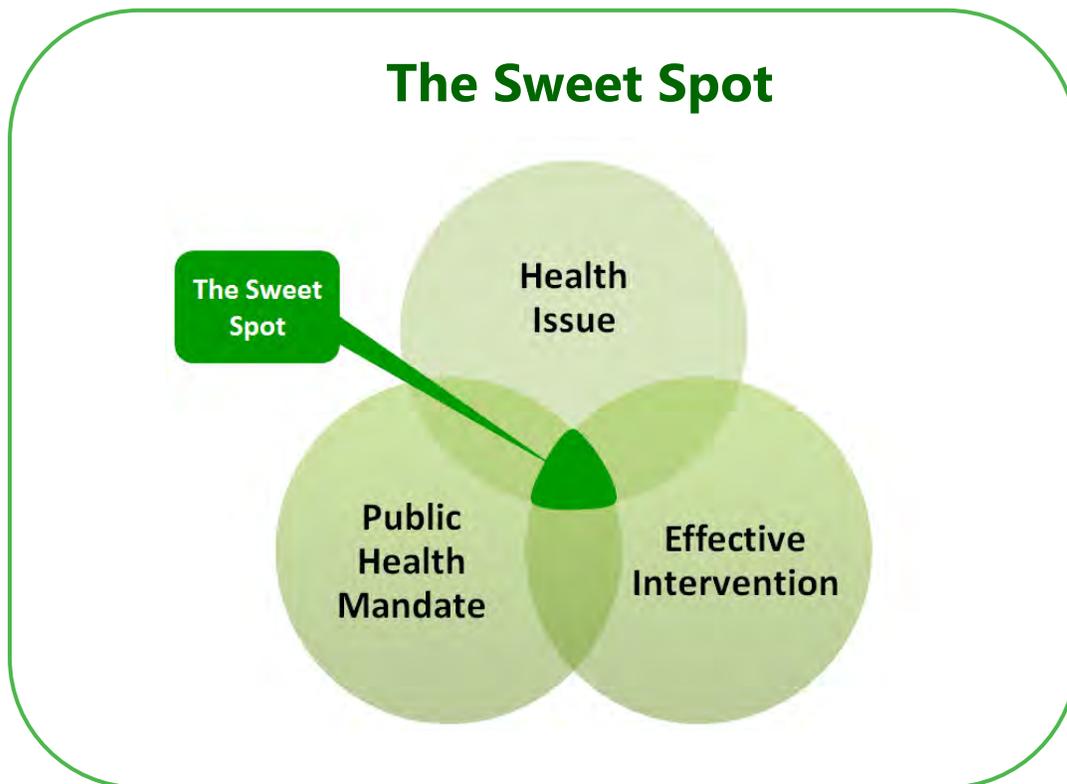
In the Environment of Relationships foundation of health, the Healthy Babies Healthy Children program has undertaken an equity assessment and implemented Public Health Nurse liaisons at each of the three Peel hospitals, seven days a week. All families identified with risk factors now have face-to-face access to a Public Health Nurse at the hospital bedside, no matter what day of the week their baby is born.

In the Physical, Chemical and Built Environments foundation of health, policy advocacy is underway to prohibit smoking in Peel multi-unit housing. This will allow vulnerable, non-smoking residents, including children, to live in smoke-free homes.

In the Nutrition foundation of health, child care providers told us they needed more information about nutritious, child-friendly meals. Partnering with other stakeholders, we developed menu plans for child care centres. These are now being tested by Peel child care providers.

In the Healthy Growth and Development foundation, methods and tools were used to define and quantify health issues related to weight before, during and after pregnancy. As a result, we conducted research reviews to determine the health impacts of preconception and pregnancy overweight and obesity. We are developing interventions to mitigate those health impacts.

There is a sweet spot where public health is most effective. This is where a health issue, our mandate and an effective intervention intersect.



Strategic Directions 2018 – 2023

We are confident that evidence-informed strategic action within each of the four foundations of health will improve health outcomes for families and young children in Peel.

We know from the evidence that early child development is complex. Health outcomes such as improvements in mental wellbeing, increases in physical activity, and reductions in obesity and diabetes are not tied to efforts in one foundation or public health intervention alone. The four foundations of health are interconnected, with interplay between them. Strategic action in one foundation can influence health outcomes across a wide range of health issues.

Strategic action to improve health outcomes.

For the next five years, the Family Health Division will focus on the strategic actions outlined below. (See Appendix A for a one page version.)

Environment of Relationships

We will:

1. Provide programs and services that are inclusive and equitable. Fathers, young parents, Indigenous communities and those we are not currently reaching will be a focus.
2. Deliver the Healthy Babies Healthy Children program in ways that reach those who will benefit from the program the most.
3. Collaborate with early years partners to contribute to the Early Years Service System Plan in Peel. This promotes social connections and support for Peel parents.
4. Partner with Peel community agencies to promote resources for mothers with postpartum mood disorder and parents in need of mental health support.

Physical, Chemical and Built Environments

We will:

1. Monitor exposure to second-hand smoke in the homes and vehicles of families with young children to identify those populations most in need of intervention.
2. Partner with other Regional services and stakeholders to create policy related to smoke-free multi-unit housing to minimize second-hand smoke exposure for tenants, including children.

3. Collaborate with Regional, community, education and early years partners to create supportive environments that promote physical activity for children and their families.

Nutrition

We will:

1. Monitor infant feeding outcomes in Peel through the annual infant feeding survey.
2. Provide Peel families, as well as our health and community partners, with credible nutrition information and advice through a variety of communication channels.
3. Deliver direct services to support the infant feeding choices of Peel families.
4. Partner with community agencies to increase food security for Peel families with young children.
5. Support Peel child care and early years providers in promoting healthy foods and eating environments for children.
6. Advocate for local, provincial and federal nutrition policy to enhance food and healthy eating environments for families and young children.

Healthy Growth and Development

We will:

1. Analyze health status data, with particular focus on inequities, to identify trends concerning the healthy growth and development of Peel children.
2. Partner with Peel child care and early years providers to improve the physical literacy of children.
3. Promote the physical activity of Peel families with young children to lay the foundation for healthy, lifelong activity habits.
4. Explore and develop interventions to support Peel women in achieving healthy weights before, during and after pregnancy.

Rising to the Challenges

These are exciting times for early child development in Peel. We have a strong theoretical base, excellent reporting and sources of local data, and detailed knowledge of some effective public health interventions that will make a difference. This allows us to develop and deliver evidence-informed, Peel-specific actions and strategies at a time when we can have the earliest and most significant impact.

Earliest and most significant impact.

Primary prevention strategies present an opportunity to have a significant impact on health outcomes when applied to Peel's large birth cohort. Strategic focus on the foundations of health and effective use of public

Initiating innovative approaches.

health interventions will make a difference. We are initiating innovative approaches to build partnerships, enhance collaboration, influence policy, create supportive environments and provide direct services. These

upstream approaches influence change at the population level, and will improve health and social outcomes for Peel's children and families.

The Family Health Division is committed to being a leader in optimizing early child development. Our ***Nurturing the Next Generation Strategic Directions 2018 – 2023*** report is a pioneering step toward making a positive, lifelong difference for families and young children in Peel.

Committed to being a leader.

Nurturing the Next Generation Strategic Actions



Environment of Relationships

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2. Deliver the Healthy Babies Healthy Children program in ways that reach those who will benefit from the program the most.
3. Collaborate with early years partners to contribute to the Early Years Service System Plan in Peel. This promotes social connections and support for Peel parents.
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5. Support Peel child care and early years providers in promoting healthy foods and eating environments for children.
6. Advocate for local, provincial and federal nutrition policy to enhance food and healthy eating environments for families and young children.



Physical, Chemical & Built Environments

We will....

1. Monitor exposure to second-hand smoke in the homes and vehicles of families with young children to identify those populations most in need of intervention.
2. Partner with other Regional services and stakeholders to create policy related to smoke-free multi-unit housing to minimize second-hand smoke exposure for tenants, including children.
3. Collaborate with Regional, community, education and early years partners to create supportive environments that promote physical activity for children and their families.



Healthy Growth & Development

We will...

1. Analyze health status data, with particular focus on inequities, to identify trends concerning the healthy growth and development of Peel children.
2. Partner with Peel child care and early years providers to improve the physical literacy of children.
3. Promote the physical activity of Peel families with young children to lay the foundation for healthy, lifelong activity habits.
4. Explore and develop interventions to support Peel women in achieving healthy weights before, during and after pregnancy.

Text References

1. Region of Peel. (June 2017). Nurturing the Next Generation Foundational Report. Available from: <http://www.peelregion.ca/health/resources/pdf/NTNG-foundational-report.pdf>
2. Shonkoff JP. Building a new biodevelopmental framework to guide the future of early childhood policy. *Child Development*; 2010 Jan 1;81(1):357-67.
3. Health Protection and Promotion Act, R.S.O. 1990, c.H.7. Available from: <https://www.ontario.ca/laws/statute/90h07>
4. Ministry of Health and Long-Term Care. (2017). Ontario Public Health Standards: Requirements for Programs, Services and Accountability. Available from: http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/protocols_guidelines/Ontario_Public_Health_Standards_2018_en.pdf
5. Region of Peel. (2015). Community for Life: Region of Peel Strategic Plan 2015-2035. Available from: <https://peelregion.ca/strategicplan>
6. Peel Infant Feeding Survey 2016 Annual Summary Report. A Peel Health Technical Report [Internet]. Mississauga (ON): Region of Peel - Public Health; 2016 [cited 2018 June 4]. Available from: <https://www.peelregion.ca/health/resources/pdf/2016-peel-infant-feeding-survey.pdf>
7. Table 13-10-0339-01 Average time spent being physically active [Internet]. Ottawa (ON): Statistics Canada; 2015 [cited 2018 Jun 13]. Available from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310033901>
8. Table 13-10-0338-01 Average time spent sedentary [Internet]. Ottawa (ON): Statistics Canada; 2015 [cited 2018 Jun 13]. Available from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310033801>
9. Active Healthy Kids Canada. Report on Physical Activity: Is Canada in the Running? The 2014 Active Healthy Kids Canada Report Card on Physical Activity for Children and You [Internet]. Toronto: Active Healthy Kids Canada; 2014 [cited 2018 April 11]. Available from: www.participaction.com/sites/default/files/downloads/Participaction-2014FullReportCard-CanadaInTheRunning_0.pdf
10. Canadian 24-Hour Movement Guidelines for the Early Years (0-4 Years): An Integration of Physical Activity, Sedentary Behaviour, and Sleep [Internet]. Ottawa (ON): Canadian Society for Exercise Physiology (CSEP); 2017 Nov [cited 2018 June 4]. Available from: http://csepguidelines.ca/wp-content/themes/csep2017/pdf/PAR7972_24Hour_Guidelines_EY_En-4.pdf
11. The 2016 ParticipACTION Report Card on Physical Activity for Children and Youth - Are Canadian Kids Too Tired to Move? [Internet]. Toronto (ON): ParticipACTION. 2016 [cited 2018 April 11]. Available from: <https://www.participaction.com/en-ca/thought-leadership/report-card/2016>

12. Table 13-10-0796-01 Measured children body mass index (BMI) (World Health Organization classification), by age group and sex, Canada and provinces, Canadian Community Health Survey – Nutrition [Internet]. Ottawa (ON): Statistics Canada; 2015 [cited 2018 Jun 13]. Available from:
<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310079601>
13. Early Development Instrument Summary Report, Senior Kindergarten Students in the province of Ontario, Peel, School Year 2014/2015. Hamilton (ON): Offord Centre for Child Studies.

Data References

- A Census 2016, Statistics Canada
- B Distribution of live births and stillbirths, by public health unit and province (Standard Report), 2013-2016, BORN Information System (BIS), BORN Ontario. Information accessed on November 7, 2017
- C Custom Profile, National Household Survey 2011, Statistics Canada.
- D Tax Filer Data (T1 Family File) 2011, Statistics Canada.
- E1 Public Health Unit Analytic Reporting Tool (Cube), BORN Information System (BIS), BORN Ontario. Information accessed on October 17, 2017
- E2 Public Health Analytic Reporting Tool (Cube), BORN Information System (BIS), BORN Ontario. Information accessed on October 18, 2017
- E3 Public Health Unit Analytic Reporting Tool (Cube), BORN Information System (BIS), BORN Ontario. Information accessed on October 19, 2016
- E4 Public Health Unit Analytic Reporting Tool (Cube), BORN Information System (BIS), BORN Ontario. Information accessed on March 23, 2018

