No Time to Wait:
The Healthy Kids Strategy

Healthy Kids Panel

Healthy Kids Panel

Dear Minister,

On behalf of all 18 members of Ontario's Healthy Kids Panel, we are proud to submit to you our unanimous recommendations on how Ontario can best make a difference in promoting the health and well-being of children and youth – and thus lay the foundation for the future health and success of our province.

We are presenting you with a comprehensive three-pronged strategy to address this complex issue: start all kids on the path to health, change the food environment and create healthy communities. For each of these elements, we have proposed realistic, achievable measures along with an action plan to turn ideas into reality.

You appointed a very talented group of citizens to this panel. Because they came from so many different sectors and walks of life, they brought varied perspectives to the panel. During six months of intensive work, every member of the panel contributed considerable expertise to this report. But every single panel member also stayed open to new ideas, put evidence ahead of preconception and was willing to move away from the prevailing wisdom of their sector in order to put together an effective strategy.

This is the formula for success for your government and for our province. We can only make progress on this issue – achieving the goal of a 20 per cent reduction in childhood obesity by 2018 – if policy-makers, thought leaders, businesses and professional groups stay genuinely open to thinking in new ways and considering uncomfortable ideas. Failing to take action now means the trajectory of childhood obesity won't change. And, if that happens, the measures inevitably needed in the future will be much more difficult to accept than the package we are recommending here.

We heard loud and clear from parents across Ontario that the health of their kids is their most important priority. They expect governments, businesses, media, professionals and service providers to work together to actively support them in their efforts to raise healthy families. They deserve nothing less.

Alex Munter
Panel Co-Chair

Kelly D. Murumets
Panel Co-Chair

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Executive Summary

Parents in Ontario want their children to grow up healthy, happy and ready to succeed in life. But, childhood overweight and obesity are undermining children's health. Almost one in every three children in Ontario is now an unhealthy weight. The problem is more severe in boys than girls, and in Aboriginal children.

Overweight and obesity are threatening our children's future and the future of our province, which looks to its children for the next generation of citizens and leaders. If our children are not healthy, then our society will not flourish. Overweight and obesity also threaten the sustainability of our health care system. In 2009, obesity cost Ontario $4.5 billion.[1] To create a different future, we must act now!

In January 2012, the Ontario Government set a bold, aspirational target: reduce childhood obesity by 20 per cent in five years.

The multisectoral Healthy Kids Panel was asked for advice on the best way to meet that target. The panel listened to parents and other caregivers, youth and experts in the field and reviewed the literature and strategies in Ontario and other jurisdictions.

The panel strongly recommends a bold, yet feasible and achievable, three-part strategy – one that will have the greatest positive impact on child health as well as a substantial return on investment for Ontario:

1. **Start all kids on the path to health.** Laying the foundation for a lifetime of good health begins even before babies are conceived, and continues through the first months of life. We must provide the support young women need to maintain their own health and start their babies on the path to health.
2. **Change the food environment.** Parents know about the importance of good nutrition. They told us they try to provide healthy food at home, but often feel undermined by the food environment around them. They want changes that will make healthy choices easier.
3. **Create healthy communities.** Kids live, play and learn in their communities. Ontario needs a co-ordinated all-of-society approach to create healthy communities and reduce or eliminate the broader social and health disparities that affect children's health and weight.

If nothing is done:

- the current generation of children will develop chronic illnesses much younger and be more affected as they age
- the cost of obesity will grow, impacting our ability to fund other programs and services.

No one policy, program or strategy will solve the problem of childhood overweight and obesity.

We heard loud and clear from parents that their children's health is their top priority, but they need some support to help their children become and stay at a healthy weight. Everyone has a role to play in supporting parents' efforts to ensure their children grow and thrive. We need action everywhere – from parents, caregivers and kids themselves, child care settings and schools, health care providers, non-governmental organizations, researchers, the food industry, the media, and municipal and provincial governments – and a willingness to take risks.

Ontario is at a tipping point. Parents, youth and everyone we spoke to are ready to be part of the solution. If Ontario acts quickly and implements all the recommendations in this report, it is possible to change the trajectory and bring kids' weight back into balance. But we must start now and sign on for the long term – at least 10 years. If we delay, we run the risk of more aggressive measures in the future.

[1] Katzmarzyk PT. (2011). The economic costs associated with physical inactivity and obesity in Ontario, *The Health and Fitness Journal of Canada*, Vol. 4, No. 4.

Our Strategy in Brief

1. Start All Kids on the Path to Health

1.1 Educate women of child-bearing age about the impact of their health and weight on their own well-being and on the health and well-being of their children.
1.2 Enhance primary and obstetrical care to include a standard pre-pregnancy health check and wellness visit for women planning a pregnancy and their partners.
1.3 Adopt a standardized prenatal education curriculum and ensure courses are accessible and affordable for all women.
1.4 Support and encourage breastfeeding for at least the first six months of life.
1.5 Leverage well-baby and childhood immunization visits to promote healthy weights and enhance surveillance and early intervention.

2. Change the Food Environment

2.1 Ban the marketing of high-calorie, low-nutrient foods, beverages and snacks to children under age 12.
2.2 Ban point-of-sale promotions and displays of high-calorie, low-nutrient foods and beverages in retail settings, beginning with sugar-sweetened beverages.
2.3 Require all restaurants, including fast food outlets and retail grocery stores, to list the calories in each item on their menus and to make this information visible on menu boards.
2.4 Encourage food retailers to adopt transparent, easy-to-understand, standard, objective nutrition rating systems for the products in their stores.
2.5 Support the use of Canada's Food Guide and the nutrition facts panel.
2.6 Provide incentives for Ontario food growers and producers, food distributors, corporate food retailers, and non-governmental organizations to support community-based food distribution programs.
2.7 Provide incentives for food retailers to develop stores in food deserts.
2.8 Establish a universal school nutrition program for all Ontario publicly funded elementary and secondary schools.
2.9 Establish a universal school nutrition program for First Nations communities.
2.10 Develop a single standard guideline for food and beverages served or sold where children play and learn.

3. Create Healthy Communities

3.1 Develop a comprehensive healthy kids social marketing program that focuses on healthy eating, active living – including active transportation – mental health and adequate sleep.
3.2 Join EPODE (Ensemble Prévenons l'Obesité des Enfants – Together Let's Prevent Childhood Obesity) International and adopt a co-ordinated, community-driven approach to developing healthy communities for kids.
3.3 Make schools hubs for child health and community engagement.
3.4 Create healthy environments for preschool children.
3.5 Develop the knowledge and skills of key professions to support parents in raising healthy kids.
3.6 Speed implementation of the Poverty Reduction Strategy.
3.7 Continue to implement the Mental Health and Addictions Strategy.
3.8 Ensure families have timely access to specialized obesity programs when needed.

From Strategy to Action: The ABCs to Success

To implement the strategy, Ontario must start now and sign on for the long term.

A. Make Child Health Everyone's Priority

A.1 Establish a cross-ministry cabinet committee, chaired by the Premier.
A.2 Engage the right partners and players outside government. Develop shared goals. Identify champions.
A.3 Empower parents, caregivers and youth.
A.4 Leverage and build on what we already have.

B. Invest in Child Health

B.1 Maintain current levels of funding allocated to prevent or reduce unhealthy weights.
B.2 Leverage and repurpose government funding.
B.3 Commit at least $80 million per year – $5.87 per person per year – in new funding to reduce childhood overweight and obesity.
B.4 Establish a public-private-philanthropic trust fund to invest in innovative new programs and services.

C. Use Evidence, Monitor Progress, Ensure Accountability

C.1 Develop a surveillance system to monitor childhood weights, risk factors and protective factors over time.
C.2 Support research on the causes of childhood overweight and obesity and effective interventions.
C.3 Establish a mechanism to monitor the implementation and impact of the three-part strategy.
C.4 Report annually to the public on progress in meeting Ontario's target.

I. Raising Healthy Kids

Parents in Ontario want their children to be healthy and happy, and to succeed in life.

When we asked parents what it means to raise a healthy kid, they said they want their children to grow up in a supportive community, surrounded by family and friends. They want them to know they are loved and valued, to be accepting of others, to "fit in" at school, to be self-confident, and to be able to make healthy choices throughout their lives. They want them to grow up to be healthy adults and good citizens. Parents told us that physical and mental health – body and mind – are inextricably linked.

Unhealthy Weights Threaten Our Children's Health

Right now, a serious problem is threatening the health and well-being of many Ontario children: overweight and obesity.

Today's kids are tomorrow's adults. Children who are overweight or obese are more likely to grow up to be overweight or obese adults and struggle with their weight throughout their lives. As they age, they are more likely to experience type 2 diabetes, high blood pressure, heart disease and arthritis.[2]

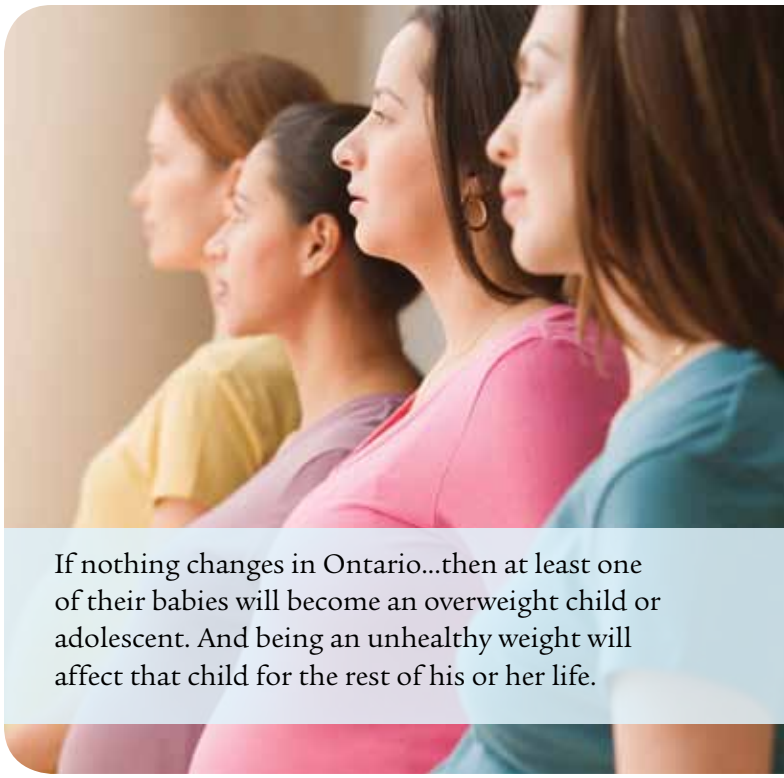
Many of the severe physical problems associated with being overweight or obese as a child – such as heart disease – may not appear until adulthood, but the social and emotional problems start early.[3]

"If their weight is not proportionate with their friends, then they feel different, they look different, they may even behave different or be treated differently, and feel like they won't fit in. If they're on a team, then they're not performing the same. Then they look in the mirror and feel like there is something wrong with them."

Parent focus group

Some overweight kids are bullied at school. They often have low esteem and suffer socially, and they are more likely to experience depression.[4]

Childhood obesity is now a crisis in Canada and Ontario. About 30 per cent of our children and youth – almost one in every three children – are now an unhealthy weight. The problem is serious for everyone, but it is more severe for boys than girls[5] and for Aboriginal children.[6]



If nothing changes in Ontario...then at least one of their babies will become an overweight child or adolescent. And being an unhealthy weight will affect that child for the rest of his or her life.

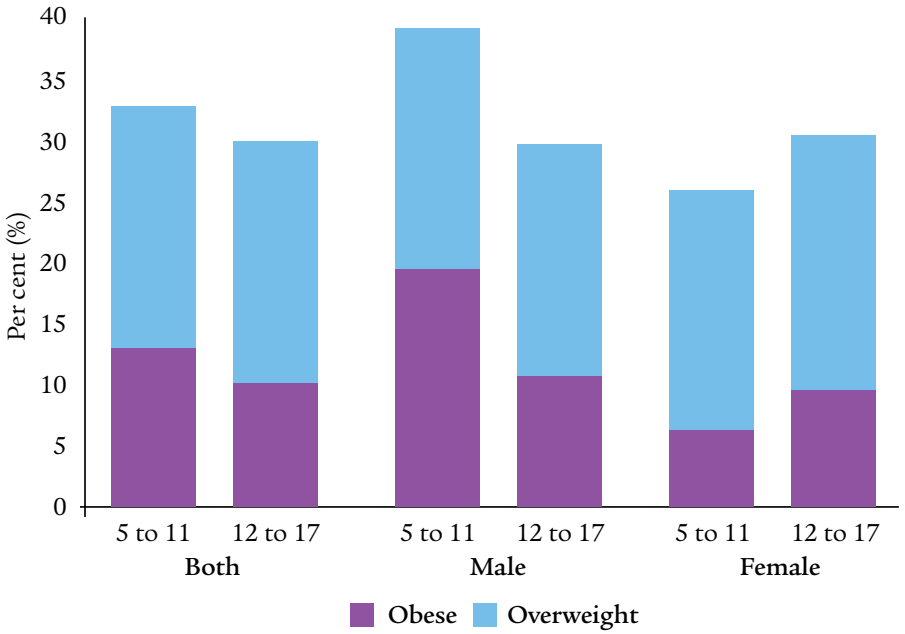
"My son tells me that he didn't see anything wrong with himself until his first day of school when he saw that he looked different than everyone else. As he went through elementary school, he was mercilessly bullied and he bullied back. When he reached high school, he had to wear a uniform but the company didn't even make them in my son's size. So, I found a similar shirt and sewed the school decal on it. That made [the bullying] worse."

Parent submission

2 Morrison K and Chanoine J, "Clinical Evaluation of Obese Children and Adolescents," *Canadian Medical Association Journal,* 176, 8 suppl (2007); pp. online, 45-49.
3 Schwartz C, Waddell C, Barican J, Garland O, Nightingale L & Gray-Grant D. (2010). The mental health implications of childhood obesity. *Children's Mental Health Research Quarterly*, 4(1), 1-20. Vancouver, BC: Children's Health Policy Centre, Faculty of Health Sciences, Simon Fraser University.
4 Strauss RS. (2000). Childhood obesity and self-esteem. *Pediatrics* Jan;105(1):e15.
5 Public Health Ontario. (2012). Evidence Primer for the Healthy Kids Panel. Toronto.
6 Smylie J. (2009). Indigenous Children's Health Report: Health Assessment in Action. Keenan Research Centre. The Centre for Research on Inner City Health. Li KaShing Knowledge Institute. St. Michael's Hospital.

Measured Overweight and Obesity in Ontario Children and Youth 2009-2011

Using WHO BMI-for-age cut-offs in Children and Youth by Age Group and Sex[7]



Overweight and obesity is based on an individual's Body Mass Index (BMI), which is calculated by dividing weight in kilograms by height in metres squared. For children and youth, age growth charts are used to account for differences in body composition in males and females and changes in body composition as children grow.

If nothing is done, the current generation of children in Ontario will be the first that has a lower quality of life than their parents. They will develop chronic illnesses much younger and be more affected as they age.[8] As a society, we will gradually lose our hard-fought gains in health.

Childhood Obesity Hurts All of Us

Growing up overweight does not just hurt individual children and their families. It hurts all of us. In 2009, obesity cost Ontario about $4.5 billion: $1.6 billion in direct health care costs and $2.87 billion in indirect costs.[9]

These figures include the cost of adult obesity too and not all obese adults were obese children. However, if we do not turn the tide on childhood obesity, the cost of caring for our increasingly overweight population will overwhelm health care budgets.

Obesity also costs our society and communities in lost productivity and opportunities. People who are overweight are more likely to miss school and work because of illness.[10] Because of the stigma associated with being overweight, children who are an unhealthy weight are often isolated and marginalized, and their skills and gifts are lost to our communities.[11]

7 Statistics Canada. CHMS report. http://www.statcan.gc.ca/pub/82-003-x/2012003/article/11706-eng.htm.
8 Reilly JJ, Kelly J. (2011). Long-term impact of overweight and obesity in childhood and adolescence on morbidity and premature mortality in adulthood: systematic review. *Int J Obes* (Lond) Jul;35(7):891-898.
9 Katzmarzyk PT. (2011). The economic costs associated with physical inactivity and obesity in Ontario, *The Health and Fitness Journal of Canada*, Vol. 4, No. 4.
10 Park J. (2009). Obesity on the Job. Perspectives, Statistics Canada. Catalogue No. 75-001-x.
11 Schwartz C, Waddell C, Barican J, Garland O, Nightingale L & Gray-Grant D. (2010). The mental health implications of childhood obesity. *Children's Mental Health Research Quarterly*, 4(1), 1–20. Vancouver, BC: Children's Health Policy Centre, Faculty of Health Sciences, Simon Fraser University.

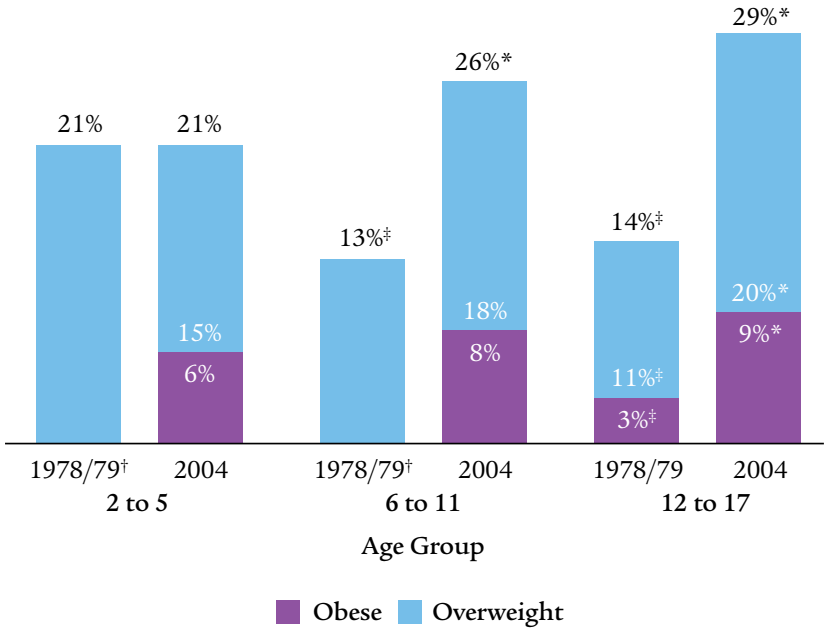
A Problem 30 Years in the Making

The problem of childhood obesity did not develop overnight. Over the past 30 years, our young people – like many adult Ontarians – have been getting heavier. Between 1978/79 and 2004, the prevalence of obesity and overweight in Ontario children increased about 70 per cent. While the proportion of children between the ages of two and five who are overweight or obese has not changed significantly, the proportion of 12- to 17-year-olds who are overweight increased from 14 per cent to 29 per cent and, of those, the proportion who are obese tripled (three per cent to nine per cent).[12]

Experts in the field, parents and families have been sounding the alarm for some time. Over the past 10 years, a growing number of studies and reports – international, national and provincial – have described the problem of unhealthy weights and recommended action. Canadian parents said obesity is the leading health issue affecting children and youth.[13] The problem and the consequences have been well documented – and we now know more about the complex causes of overweight and obesity. But, we have not yet seen the comprehensive, concerted action needed to solve the problem.

> The 2009-2011 Canadian Health Measures Survey told us that our kids today are fatter, rounder, weaker and less flexible than their parents were a generation ago.

Percentage of overweight or obese Canadian children and youth, 1978/79 and 2004[14]



† Obesity estimate has a coefficient of variation greater than 33.3 per cent; therefore, it cannot be released and the combined overweight/obesity prevalence is shown.

* Significantly different from estimate for 1978/79 (p <0.05)

‡ Coefficient of variation 16.6 per cent to 33.3 per cent (interpret with caution)

12 Shields M, Tremblay MS. Canadian childhood obesity estimates based on WHO, IOTF and CDC cut-points. *Int J PediatrObes,* 2010 May 3;5(3):265-273.

13 Ipsos-Reid. (2011). Canadian Perceptions of, and Support for, Potential Measures to Prevent and Reduce Childhood Obesity. Prepared for the Public Health Agency of Canada.

14 Data sources: 1978/79 Canada Health Survey; 2004 Canadian Community Health Survey: Nutrition. Source: Shields, M. (2006). Overweight and Obesity among Children and Youth. Statistics Canada Health Reports, 17(3). Accessed at: http://www.statcan.gc.ca/pub/82-003-x/2005003/article/9277-eng.pdf

If Nothing Changes, Our Kids Face a Bleak Future

If nothing changes – if we are not able to reverse the current weight trajectory – we will continue to see increases in unhealthy weights and in all the related health conditions.

By 2040, up to 70 per cent of today's children will be overweight or obese adults and almost half our children will be an unhealthy weight.[15] A much larger proportion of children will cross the line from being overweight to being obese, and the impact on their physical and mental health and well-being will be severe.

The most devastating part of this trend is that obesity will mark our DNA, changing our metabolism and genetically reprogramming future generations of children to be at greater risk of being overweight.[16,17]

Why We Must Act Now

No one wants their son, daughter, niece or nephew – or any child – to reach middle age in poor health and with chronic diseases. Is it possible to change the current weight trajectory?

Yes.

Ontario is committed to being the best place in North America to grow up and grow old.

> The human and economic consequences of continuing to allow unhealthy weights to threaten our children's health are so dire that the status quo is simply not an option.

In January 2012, the Ontario Government set an extremely ambitious target: to reduce childhood obesity by 20 per cent over five years.

The Minister of Health and Long-Term Care established the Healthy Kids Panel to recommend a strategy to meet that target.

The Healthy Kids Panel is a broad, multi-sectoral group that brings together – for the first time in Ontario – a wide range of perspectives on the problem of childhood weights, including health care providers, educators, non-governmental organizations, the food industry, the media and researchers (see Appendix 1 for a list of members and the terms of reference).

15 Le Petit C, Berthelot JM. (2012). Obesity: A Growing Issue. Statistics Canada catalogue no. 82-618-MWE2005003.

16 Relton CL, Groom A, St. Pourcain B, Sayers AE, Swan DC, et al. (2012). DNA Methylation Patterns in Cord Blood DNA and Body Size in Childhood. PLoS ONE 7(3): e31821. doi:10.1371/journal.pone.0031821.

17 Hochberg Z, Feil R, Constancia M, Fraga M, Junien C, Carel JC, Boileau P, Le Bouc Y, Deal CL, Lillycrop K, Scharfmann R, Sheppard A, Skinner M, Szyf M, Waterland RA, Waxman DJ, Whitelaw E, Ong K, Albertsson-Wikland K. (2011). Child health, developmental plasticity, and epigenetic programming. *Endocr Rev.* 2011 Apr;32(2):159-224. doi: 10.1210/er.2009-0039. Epub 22 Oct. 2010.

With Bold Action, We Can Create a Different Future

Is it realistic to assume that Ontario can undo in five years a problem that took more than 30 years to develop? The bar has been set high. Aspirational targets demand ambitious action. Meeting these targets will require a long-term commitment and unprecedented social change.

To succeed, **we need a bold, but practical strategy** that targets the factors that affect child health. We also need collective action: the right initiatives championed by the right people and organizations. To identify those initiatives and champions:

- We engaged parents and youth and asked them what would help them promote their children's and their own health and well-being (see Appendix 2).
- We engaged 19 thought leaders in this field – scientists, health care providers, academics and others with expertise in public health, education, obesity, and complexity theory – and asked for their best advice on the actions that will have the greatest impact (see Appendix 2).
- We considered 93 written submissions and met with over 30 stakeholder groups (see Appendix 2).
- We reviewed key evidence-based reports written on childhood obesity as well as other emergent strategies designed to improve child health (see Appendix 3).

What we heard convinced us that we are at a tipping point. Parents told us that they are the ones who have the greatest influence on their child's health – including their weight. They see themselves as role models for their children. The young people we talked with also said they want to be part of shaping their own health and helping their peers. These strong roles for parents and youth echo the findings of a national survey of Canadians: 98 per cent said parents should play a key role in addressing obesity and 71 per cent said children themselves should be involved.[18]

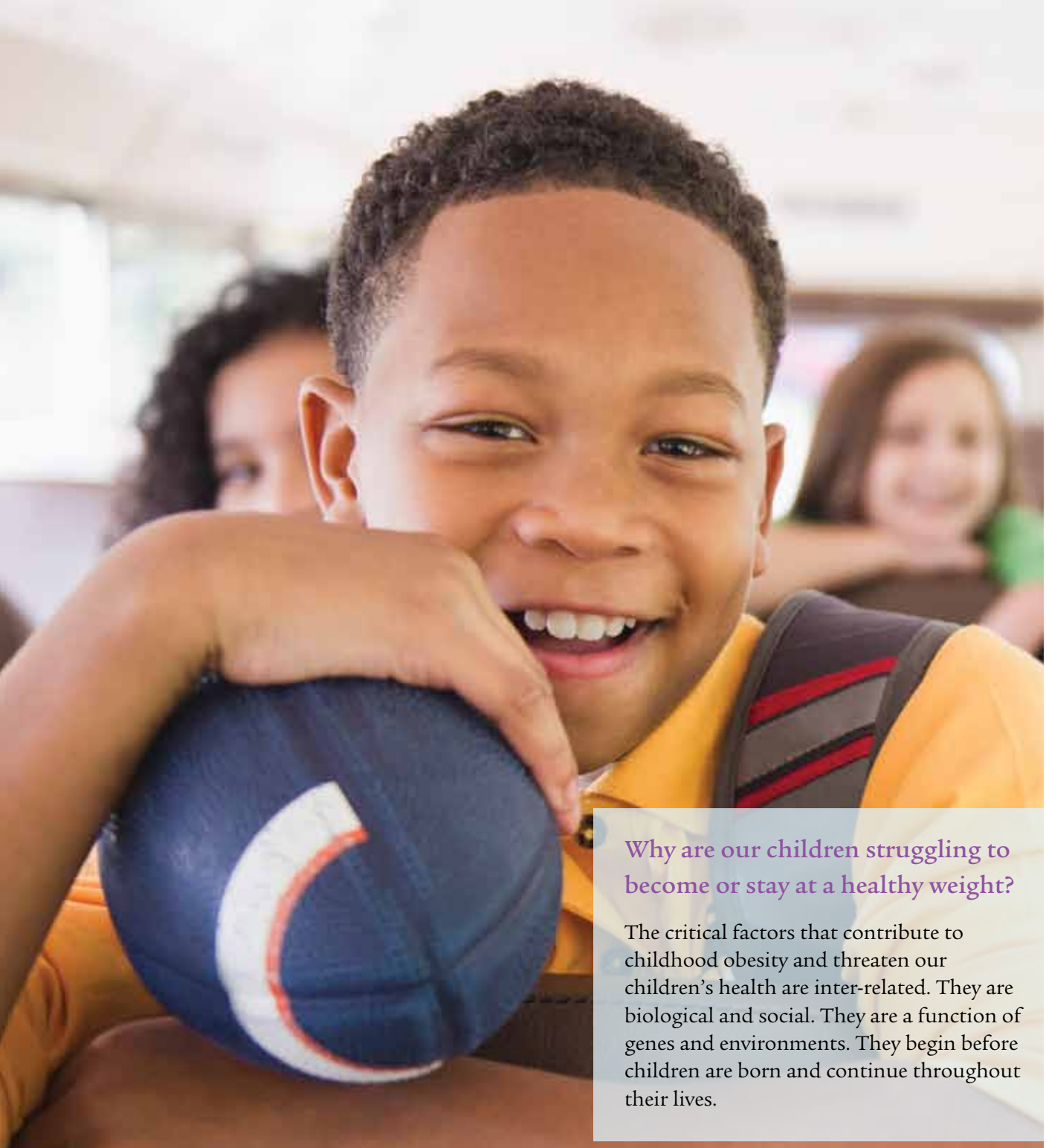
Ontario has a strong track record in creating social change. Smoking rates are down – as is drinking and driving. Most Ontarians wear seatbelts. We are skilled at working together and using a combination of approaches to encourage Ontarians to do things that are good for their health.

At the same time, parents and youth recognize that there are other people and organizations that influence child health – including child care providers, schools, health care providers, the food industry, the media, non-governmental organizations, and municipal and provincial governments. According to Canadian parents, childhood overweight and obesity is a public issue that society needs to help solve together.[19]

We need feasible solutions that engage everyone, every day, everywhere in changing the future, bringing kids' weight back into balance and improving their health. Bold practical action now means we can avoid more aggressive measures in the future.

Health is about more than weight. In fact, a child who is a little overweight and who is fit and active is healthier than a child who is the "right" weight for his or her age and height but is more sedentary. Focusing too much on weight is stigmatizing and will not address many of the factors that contribute to unhealthy weights.

[18] Ipsos-Reid. (2011). Canadian Perceptions of, and Support for, Potential Measures to Prevent and Reduce Childhood Obesity. Survey conducted for the Public Health Agency of Canada.
[19] Ibid.



Why are our children struggling to become or stay at a healthy weight?

The critical factors that contribute to childhood obesity and threaten our children's health are inter-related. They are biological and social. They are a function of genes and environments. They begin before children are born and continue throughout their lives.

II. Understanding Causes and Trends in Unhealthy Weights

1. Factors Affecting a Healthy Start in Life

Children come in different shapes and sizes. Their weight is influenced by genetics, physiology and other biological factors.

Genes. Some children are genetically predisposed to be heavier. Research has identified over 50 different genes that contribute to obesity, but there are likely many more. In some cases, single gene disorders have been shown to cause obesity, but in most cases it takes multiple genes to "program" a child to be heavier. Two of the most widely studied genes affect brain function and behaviour, and contribute to people feeling hungry, eating more food – particularly fat and energy-rich foods – and not feeling full.[20] Their effects on weight appear in early childhood and become stronger with age, and can interact with children's environments. For example, a poor diet can increase the effects of these genes, while a healthy lifestyle can reduce their negative impact. For at least one of these genes, early intervention – such as exclusively breastfeeding babies – can reduce the weight gain they would otherwise experience over the long term.[21]

Physiology. The human body needs food to survive and is physiologically hardwired to eat more when food is plentiful and to store energy – fat – when food is scarce. In Ontario today, this rarely occurs. The physiological factors that helped our ancestors survive are now making our children heavier. Human beings are also neurologically programmed to crave high-calorie foods – particularly when we are hungry. For example, when people skip breakfast, the pleasure seeking part of their brain is activated by pictures of high-calorie foods, which can cause them to eat more.[22] In some cases, this "programming" is due to genetics; however, adverse environments during pregnancy and infancy can also program babies to eat more high-calorie foods as they grow up.[23]

Sleep. Sleep deprivation is also associated with higher weights.[24] Children and adolescents who get less sleep gain more weight.[25] Children need to get enough sleep and the amount of sleep they need varies by age and stage of life (see table below).[26] Over the past 20 years, children have been getting between 30 and 60 minutes less sleep a night due to later bedtimes.[27] The drop has been greatest for children under age three.[28]

Age	Sleep Needs
Newborns (0-2 months)	12-18 hours
Infants (3-11 months)	14-15 hours
Toddlers (1-3 years)	12-14 hours
Preschoolers (3-5 years)	11-13 hours
School-aged children (5-10 years)	10-11 hours
Adolescents (10-17 years)	8.5-9.25 hours
Adults (18-64 years)	7-9 hours
Elders (65+ years)	7-9 hours

20 Wellcome Trust Sanger Institute. "Obesity All In Your Head? Brain Genes Associated With Increased Body Mass." *ScienceDaily,* 15 Dec. 2008.
21 Abarin T, Yan Wu Y, Warrington N, Lye S, Pennell C, Briollais L. (2012). The impact of breastfeeding on FTO-related BMI growth trajectories: an application to the Raine pregnancy cohort study. *Int J Epidemiol.* Nov 15. [Epub ahead of print]
22 Goldstone AP, de Hernandez CGP, Beaver JD, Muhammed K, Croese C, Bell G, Durighel G, Hughes E, et al. (2009). Fasting biases brain reward systems towards high-calorie foods. *European Journal Of Neuroscience.* 30:1625-1635
23 Gardner DS, Rhodes P. (2009). Developmental origins of obesity: programming of food intake or physical activity? *AdvExp Med Biol.* 2009;646:83-93. doi: 10.1007/978-1-4020-9173-5_9.
24 Chaput JP, Lambert M, Gray-Donald K, McGrath JJ, Tremblay MS, O'Loughlin J, Tremblay A. (2011). Short sleep duration is independently associated with overweight and obesity in Quebec children. *Canadian Journal of Public Health* 102: 369-374.
25 Patel SR, Hu FB. (2008). Short sleep duration and weight gain: a systematic review. *Obesity* (Silver Spring). March;16(3)643-653.
26 Children's Hospital of Eastern Ontario. Promoting Sleep Hygiene in Children. Accessed 12 December 2010.
27 Iglowstein I, Jenni OG, Molinari L and Largo RH. (2003). Sleep duration from infancy to adolescence: Reference values and generational trends. *Pediatrics* 111(2):302-307.
28 Ibid.

Mental health. We are only just beginning to explore the link between mental health and weight, but it appears that the two are strongly related. Mental health problems, such as depression, bipolar disorder and anxiety – as well as the side effects of medications – can drive overeating; at the same time, being overweight leads to social exclusion, which affects self-esteem and mental health. Unhealthy body image can also lead to other eating disorders.[29]

Much of the stigma associated with being overweight, particularly among girls, is being driven by the fashion, celebrity and diet industries.[30] Boys are not immune to these trends. According to an analysis of 134,000 comments posted by 30,000 overweight children over a period of 11 years on the interactive Weigh2Rock website, children and youth who are overweight, who do not "fit" the fashion ideals, who are self-conscious about their size or shape or who are bullied, turn to food for emotional comfort – and "comfort" foods tend to be high-calorie, high-sugar foods.[31] Parents also told us that kids who do not excel at sports or physical activity may shy away from participating because they feel the emphasis of intense, group-driven physical education classes and school sports is on excellence rather than activity and fun.

"I have an overweight child and he has had lots of teaching from me, but the outside influences really impact what he eats, especially the media, and he isn't able to determine what is good for him and what is not…. He has lately been under a lot of pressure because of the focus of the media on overweight kids and this has been very hurtful to him, so people need to exercise caution when they are saying things to kids about their weight because it hurts."

Parent focus group

On the other hand, young people who are mentally "fit" – or resilient – are better able to respond to life's challenges and remain healthy despite the presence of stress.[32]

2. Factors Affecting the Food Environment and Food Choices

Over the past 30 years, our kids' eating habits have changed. Children and youth are eating foods with more sugar and fat, such as fried foods, chips, candy and sugar-sweetened beverages.

Kids – particularly teenage boys – consume significantly more sugar each day than adults. More than a third (35 per cent) of the sugar that Canadians consume comes from the added sugars in foods, such as soft drinks and candy, as opposed to sugar that occurs naturally in fruits, vegetables and milk.[33]

For kids aged one to 18, almost half of their daily sugar intake (44 per cent) comes from beverages. Nine- to 18-year-olds get 14 per cent of their daily sugar from milk, 14 per cent from soft drinks, nine per cent from fruit juice, and seven per cent from fruit drinks. Milk was the primary source of sugar among children aged one to eight, but by ages nine to 18, regular soft drinks ranked first. The percentage of sugar derived from confectionary items (e.g., chocolate bars, candies) was about twice as high for

29 Wang F, Wild TC, Kipp W, Kuhle S, Veuglers PJ. (2009). The influence of childhood obesity on the development of self-esteem. Statistics Canada Catalogue no. 82-003-XPE. Health Reports 20;2.

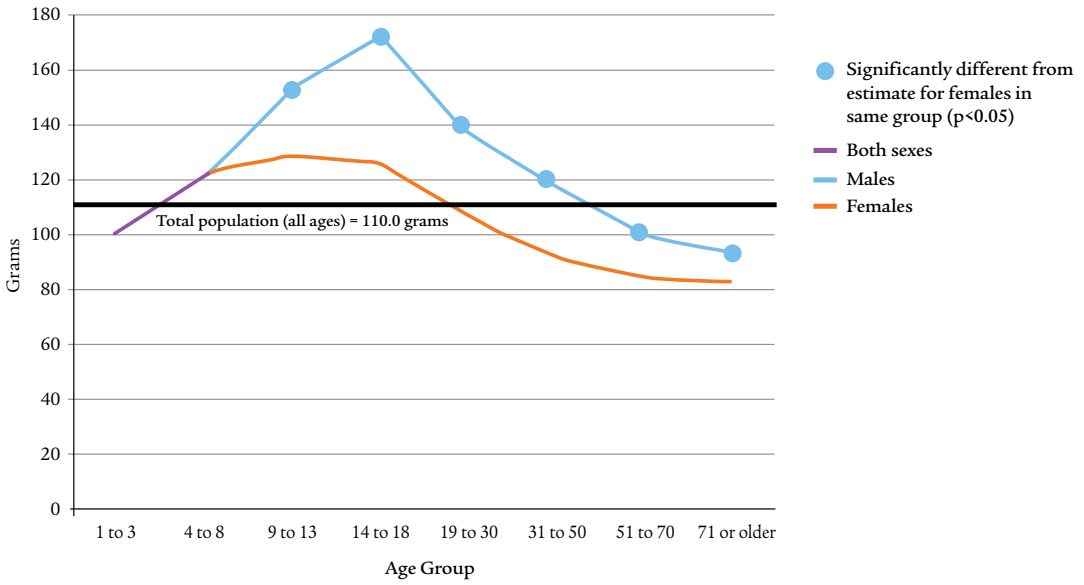
30 Schwartz C, Waddell C, Barican J, Garland O, Nightingale L & Gray-Grant D. (2010). The mental health implications of childhood obesity. *Children's Mental Health Research Quarterly*, 4(1), 1-20. Vancouver, BC: Children's Health Policy Centre, Faculty of Health Sciences, Simon Fraser University.

31 Pretlow R. (2010). Why Are Children Overweight? Presentation to the 2010 National Obesity Forum. Royal College of Physicians, London.

32 Russell-Mayhew S, McVey G, Bardick A, Ireland A. (2012). Mental Health, Wellness, and Childhood Overweight/Obesity. *Journal of Obesity* Vol. 2012.

33 Canadian data on sugar intake copied verbatim from http://www.statcan.gc.ca/pub/82-003-x/2011003/article/11540-eng.pdf.

Average daily sugar intake, by age group and sex, household population aged 1 or older, Canada excluding territories, 2004.[34]



children (nine per cent) and adolescents (10 per cent) as for adults (five per cent).[35]

Why have our kids' diets changed so dramatically? The change is a function of many factors that influence our food environment, including time pressures, cost, accessibility, knowledge, mental health and marketing.

Time pressures. Parents told us the single biggest factor influencing their food choices is lack of time.

"Parenting is a full-time job and it is hard to find the time between two full-time jobs, after school activities, doctors' appointments, etc., to plan/make good healthy meals and more time for kids to just play outside."
Parent survey

The national survey heard the same message.[36] Time-stressed families who are balancing work, home and school responsibilities are turning more to fast food and processed or prepared foods because they do not have the time or the energy to cook. The proportion of meals that Canadians prepare and eat at home declined from 70 per cent in 2001 to 65 per cent in 2008, and the average Canadian visited restaurants 184 times in 2007.[37] According to the Statistics Canada survey of Canadians' eating habits, on the day before the interview, one-quarter of people who completed the survey – including one-third of teenagers 14 to 18 years old – had eaten something prepared in a fast food outlet. Of those who ate fast food, 40 per cent reported ordering a pizza, sandwich, hamburger or hot dog and 25 per cent had a regular soft drink.[38]

"I have a very busy life. I am working full-time and a single parent. I cook once a week – maybe twice. The rest [of the time] I have to buy."
Parent focus group

34 2004 Canadian Community Health Survey – Nutrition.
35 Ibid.
36 Ipsos-Reid. (2011). Canadian Perceptions of, and Support for, Potential Measures to Prevent and Reduce Childhood Obesity. Prepared for the Public Health Agency of Canada.
37 Canadian Restaurant and Foodservices Association (CRFA). *Foodservice Facts 2010,* 2010.
38 Statistics Canada. (2007). Canadians' Eating Habits. Health Reports:18;2.

As a culture, many of us have fallen out of the pattern of family meals where we know the ingredients in what we eat and have more control over portion size.[39] Family meals help establish healthy eating behaviours and decrease the risk of unhealthy weight gain.[40] Because our family lives are busy, we rush through meals and are more likely to eat while watching television. When children eat in front of the television, they eat mindlessly and they are less likely to notice when they are full, so they eat more.[41]

The shift away from preparing and eating family meals also means that children have fewer opportunities to learn about cooking and nutrition.[43] According to research in the U.S., children who regularly enjoy family meals receive benefits beyond healthy eating: they perform better in school, tend to be happier and have less risk of substance use.[44]

Cost. Parents – particularly those raising families on low incomes – told us healthy foods are often too expensive. High-calorie foods cost less than fresh fruits and vegetables. As one mother said, "If I buy a bag of apples, that's one snack for everyone in the family. If I buy a bag of cookies that's three snacks for everyone." Families living on low incomes have to make difficult food choices between affordability and health as fresh foods often cost more than processed ones.

"I often have to buy what's on sale. That's not always what's healthy."

Parent focus group

Television viewers end up eating 40 per cent more food because they tend to eat to the pace of the program or until the program is over.[42]

Food choices often come down to cost, and the cost of healthy foods varies depending on where you live in Ontario. In 2012, the average weekly cost of a nutritious food basket in Ontario was $183.10 – up three per cent from 2011.[45] A family of four in a northern Ontario area with one wage earner who makes minimum wage would have to spend about $800 a month for healthy food and $965 for rent, leaving only $836 for all other family expenses, such as telephone, transportation, clothing, child care, school supplies and personal care items. If that same family of four was managing on the monthly income available through Ontario Works, they would have only $228 a month after rent and healthy food for all other expenses.[46]

"The sad point is that you can go [to a fast food restaurant] and get your $1.99 sandwich and it's cheaper to feed your family [fast food] every night than it is to go to the grocery store... and sit at home and prepare a meal. It's cheaper to go to the fast food restaurants, and it's easier."

Parent focus group

[39] Zoumas-Morse C, Rock C, Sobo E, Neuhouser M. Children's patterns of macronutrient intake and associations with restaurants and home eating. *J Am Dietetic Assoc* 2001; 101(8): 923-925.

[40] Woodruff SJ, Hanning RM. (2009). Associations between family dinner frequency and specific food behaviours among grade six, seven and eight students from Ontario and Nova Scotia. *J Adolesc Health* 44(5):431-6.

[41] Bellissimo N, Pencharz PB, Thomas SG & Anderson GH. (2007). Effect of television viewing at mealtime on food intake after a glucose preload in boys. *Pediatr Res*, 61(6), 745-9.

[42] Ibid.

[43] Health Canada. Improving Cooking and Food Preparation Skills: A Synthesis of the Evidence to Inform Program and Policy Development. 2010. http://www.hc-sc.gc.ca/fn-an/nutrition/child-enfant/cfps-acc-synthes-eng.php.

[44] Woodruff SJ, Hanning RM. (2008). A review of family meal influence on adolescents' dietary intake. *Can J. Diet Prac Res*. 69(1):14-22.

[45] Kingston, Frontenac and Lennox & Addington Public Health Unit, The Cost of Eating Healthy. 2012. http://www.kflapublichealth.ca/Files/Resources/Cost_of_Eating_Healthy.pdf.

[46] Sudbury and District Health Unit. (2011). Nutritious Food Basket. Limited Incomes: A Recipe for Hunger. Accessed December 14, 2012 from http://www.sdhu.com/uploads/content/listings/NutritiousFoodBasket_2011.pdf.

Accessibility. Fresh fruits and vegetables are often not available or affordable in all neighbourhoods and communities.

"Our community is rural and [it's] very hard to access fresh foods and organized activities."
Parent survey

On the other hand, high-calorie foods, drinks and snacks are available everywhere: corner stores, gas stations, and vending machines.

"Unhealthy choices are easy and accessible, and supported by advertising… . Healthy choices are more effort."
Parent survey

Some Ontarians live in "food deserts": places with little or no access to healthy food, but often with plenty of fast food restaurants and convenience stores.[47]

Knowledge. Based on our surveys and focus groups, parents are aware of Canada's Food Guide, and of the importance of eating fruits and vegetables. However, parents told us they still have some knowledge gaps. For example, many do not know how much food energy (i.e., calories) a child should have each day. Some said they struggle to understand the nutrition labelling on products, to make sense of different product "health" claims and to select healthier options and serving sizes when they are grocery shopping or eating in restaurants.

Marketing. Parents told us that children's food choices are affected by marketing.

"The manufacturers and advertising/marketing companies are… bombard(ing our kids) from everywhere with visions of junk food in all the media and everywhere they go. If we can teach our kids healthy eating habits without having the marketing/advertising and media companies sabotage our efforts, we might stand a chance to raise healthy kids."
Parent survey

We do not know exactly what the food industry spends each year in Canada or Ontario marketing foods to children and youth. However, we do know that, in one week in October 2006, four popular free-to-view channels in Ontario and Quebec aired a total of 2,315 food-related advertisements, 257 of which were aired when at least 20 per cent of the audience was two to 17 years old. The most frequently advertised food products were for meals (35.3 per cent), restaurants (14.2 per cent), and grain products (10.8 per cent).[48] Another study showed that four food ads per hour were shown during children's peak television viewing times and six food ads per hour were shown during non-peak times. Approximately 83 per cent of those ads were for "non-core" foods and 24 per cent of food ads were for fast food restaurants.[49]

47 Larsen K & Gilliland J. (2008). Mapping the Evolution of "food deserts" in a Canadian city: Supermarket accessibility in London, Ontario, 1961-2005. *International Journal of Health Geographics* 7:16.

48 Adams J, Hennessy-Priest K, Ingimarsdottir S, Sheeshka J, Ostbye T, White M. (2009). Food advertising during children's television in Canada and the UK. *Arch Dis Child* 94658-662 doi:10.1136/adc.2008,151019.

49 Kelly B, Halford JCG, Boyland E, Chapman K, Bautista-Castaño I, Berg C, et al. (2010). Television food advertising to children: A global perspective. *Am J Public Health*. 2010;100(9):1730-5.

The advertising messages are everywhere – in the media, at entertainment and sporting events, in stores – and they shape the demand for these products and influence family purchasing and eating habits.[50]

"I think it's more outside media, like TV, whatever, just walking around, they put the pop at the end of the aisle when you're going to go pay for your food, you know, the pop's right there, so obviously a kid's going to want a pop when they see it, it's the last thing they see, so have it in a different part of the store."

Parent focus group

Parents told us their kids' food choices are also affected by their friends.

"As they get older, their friends influence what they eat. [Their friends] have something at school and the next day your kid wants it."

Parent focus group

3. Factors Affecting Our Communities

At the same time that our kids are eating more unhealthy foods, they have become less active. In particular, they are less active at home and on the weekends than on weekdays, despite having more free time.[51] Only seven per cent of Canadian children and youth (nine per cent of boys and four per cent of girls) are currently meeting the Canadian Physical Activity Guidelines.[52] Only 35 per cent of Canadian children and youth, ages 10 to 16, report using active transportation to go to school.[53]

Why? Again, the causes are complex and they include: time pressures, changes in kids' activities because of technology, cost, concerns about safety, physical environments and social disparities.

Time pressures. In our time-stressed culture, kids walk less and are driven more. Research has shown that parents who are rushed and feel stressed are more likely to keep young children in strollers instead of letting them walk, and to drive their older kids to and from school and to their other activities.[54]

"I don't have time. I'm a single mother of two and I work. By the time I come home, I'm tired. I have to cook, help with homework, so many things. I would like to be more active with my kids, but by the time it's nine at night, I'm done."

Parent focus group

Change in kids' activities. Even 20 years ago, kids were more involved in physical play and chores at home. They moved more and they expended more energy.[55]

Now, because of technological advances, Canadian children spend on average 8.6 hours or 62 per cent of their waking hours a day being sedentary.[56] According to the 2012 Active Healthy Kids Canada Report Card on Children's and Youth's Physical Activity, they spend about seven hours and

50 Nadeau M. (2011). Food Advertising Directed at Children, Review of Effects, Strategies and Tactics. Prepared for the Quebec Coalition on Weight-Related Problems.
51 Garriguet D, Colley RC. (2012). Daily patterns of physical activity among Canadians. Health Reports, 23(2): 1-6.
52 Colley RC, Garriguet D, Janssen I, Craig CL, Clarke J, Tremblay MS. (2011). Physical activity of Canadian children and youth: accelerometer results from the 2007 to 2009 Canadian Health Measures Survey. Health Reports, 22(1): 15-23.
53 Active Healthy Kids Canada (2012). Is Active Play Extinct? The Active Healthy Kids Canada 2012 Report Card on Physical Activity for Children and Youth. Toronto: Active Healthy Kids Canada.
54 Ibid.
55 Presentation to the Healthy Kids Panel by Mark Tremblay, Director, Healthy Active Living and Obesity Research Group, Children's Hospital of Eastern Ontario Research Institute, September 2012.
56 Colley RC, Garriguet D, Janssen I, Craig CL, Clarke J, Tremblay MS. (2011). Physical activity of Canadian children and youth: accelerometer results from the 2007 to 2009 Canadian Health Measures Survey. Health Reports, 22(1): 15-23.

48 minutes a day on screens (i.e., television, computers, smartphones).[57] In 2000/2001, 65 per cent of youth spent 15 or more hours a week in sedentary activities. By 2009, the percentage had jumped to 76 per cent.[58]

"It's just too easy to watch TV after dinner or play video games rather than going out for a walk, bike ride or to the park."

Parent focus group

Children who log more than two hours of screen time a day are twice as likely to be overweight or obese than those who spend an hour or less on screens.[59]

Cost. The cost of some organized sports or physical activities – including transportation to and from these activities – puts them out of the reach of some families with low incomes.

"Our community is financially disadvantaged and parents may not know about opportunities for their children or, if they do, they can't afford it anyway. Hockey is $500 a season to join plus equipment and other costs."

Parent survey

Perceptions about safety. Today's parents are highly concerned about their children's safety, so they are less likely to let them go out to play or go to the park on their own or with other children.[60]

"My country...we always played outside. I can just tell my friend to watch the kids, don't need a babysitter. Here they are stuck inside. They are always in the apartment by themselves. I can't let them go out on their own."

Parent focus group

Physical environments. People who live in walkable neighbourhoods are more physically active and are less likely to develop chronic diseases than those in less walkable neighbourhoods.[61] However, many communities are not designed to encourage kids to move or be physically active. In fact, some neighbourhoods post signs prohibiting activities, such as ball hockey and have few safe green spaces. Instead, our towns and cities are designed to be car-friendly: wide streets, narrow sidewalks or pedestrian areas, and few bike paths.[62]

"There's been a couple of parks that I've tried to bring my son to, and it's all gated off because of the community that's around.... Once the school or whatever is done for the day, they'll lock up the fence."

Focus group parent

Social disparities. Raising healthy children is a challenge for all of us, but it is particularly difficult for Ontario families who experience social disparities. For example, during our focus groups, we learned about the extraordinary efforts parents with low incomes make to feed their children well – using coupons, following sales and visiting different stores – but price often restricts their choices at the grocery store and when eating out.

" My husband and I both work, but our income has decreased greatly over the last few years and it is tough to live on what we are making.... This is not unusual in working families. We are becoming poorer by the year and this impacts how we eat."

Parent survey

57 Active Healthy Kids Canada (2012). Is active play extinct? The Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth. Toronto: Active Healthy Kids Canada.

58 Chief Public Health Officer's Report on the State of Public Health in Canada 2011 – Youth and Young Adults. Life in Transition. http://publichealth.gc.ca/CPHOreport]. Citing CCHS 2001 & 2009: Statistics Canada. Canadian Community Health Survey, 2009: Annual [Share Microdata File]. Ottawa, Ontario: Statistics Canada. Canadian Community Health Survey, 2000: Cycle 1.1 [Share Microdata File]. Ottawa, Ontario: Statistics Canada.

59 Ibid.

60 Presentation to the Healthy Kids Panel by Mark Tremblay, Director, Healthy Active Living and Obesity Research Group, Children's Hospital of Eastern Ontario Research Institute, September 2012.

61 Toronto Public Health. (2012). The Walkable City: Neighbourhood Design and Preferences, Travel Choices and Health and Road to Health: Improving Walking and Cycling in Toronto.

62 Institute of Medicine. (2012). Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation. National Academy of Sciences.

Income inequality has been increasing in Canada and Ontario over the past generation. The top 10 per cent of Canadians earn, on average, $165,322 after taxes while the bottom 10 per cent earn $9,790.[63] Between 1981 and 2009, the proportion of Ontarians living below the low-income threshold increased from 9.4 per cent to 13.1 per cent. Large gaps between the rich and poor are associated with poorer self-reported health, and are affecting families across Ontario.[64]

In the national survey, families with a household income below $60,000 were more likely to say that there was no place to buy healthy food in their neighbourhood. They were also more likely to assign responsibility for kids being overweight to fast food restaurants and to think that this industry should play a role in fighting obesity.[65]

Social determinants of health – including poverty, income inequality, food insecurity, and inequitable access to prenatal care – have a disproportionate effect on certain populations, including Aboriginal peoples and recent immigrants.[66]

Poverty is an issue for young Aboriginal children and their families. According to the Aboriginal Children's Survey 2006, 41 per cent of young First Nations children (aged five and under) living off-reserve and 32 per cent of young Métis children were from low-income families, compared to 18 per cent of non-Aboriginal young children.[67] In Canada, a significant proportion of Aboriginal children (off-reserve) are overweight or obese: 41 per cent compared to the national average of 26 per cent.[68] In terms of food insecurity, one in five off-reserve Aboriginal households[69] and more than half of the on-reserve households struggle to access healthy food.[70] Food insecurity is a particular problem for First Nations children where one out of four lives below the poverty line.[71] Aboriginal children obtain about 10 per cent of their energy from traditional foods and 40 per cent from sugar, fat, highly refined grains or junk food. When they have at least one serving a day of traditional food, their nutrition is much better.[72] In geographically isolated First Nations communities, healthy market food has to be transported in and, despite government subsidies, is expensive. Traditional foods themselves are expensive – and beyond the reach of low-income families – because of the costs associated with hunting (e.g., boats, snowmobiles, gas, and other equipment).[73]

Recent immigrants to Ontario also face social disparities. Many are living on low incomes,[74] and working hard to create a new life in a new country far from family supports. Our focus groups included parents from diverse cultural backgrounds who told us that they sometimes have trouble finding or affording their traditional foods, as well as difficulty finding the time to cook traditional meals.

63 Statistics Canada. (2012). Custom income tabulations for Canadian Centre for Policy Alternatives. From Survey of Labour and Income Dynamics (2009).
64 Xi G, McDowell I, Nair R, Spasoff R. (2005). Income Inequality and Health in Ontario. *Canadian Journal of Public Health*. May-June.
65 Ipsos-Reid. (2011). Canadian Perceptions of, and Support for, Potential Measures to Prevent and Reduce Childhood Obesity. Prepared for the Public Health Agency of Canada.
66 Mikkonen J & Raphael D. (2010). Social Determinants of Health: The Canadian Facts.Toronto: York University School of Health Policy and Management.
67 Smylie J. (2009). Indigenous Children's Health Report: Health Assessment in Action. Keenan Research Centre. The Centre for Research on Inner City Health. Li KaShing Knowledge Institute. St. Michael's Hospital.
68 Shields, M. (2006). Overweight and obesity among children and youth. Statistics Canada Health Reports:17;3.
69 Canadian Community Health Survey 2007-2008. Statistics Canada.
70 First Nations Information Governance Centre (FNIGC) (2012). First Nations Regional Health Survey (RHS) 2008/10: National report on adults, youth and children living in First Nations communities. Ottawa: FNIGC.
71 Standing Committee on Health (SCH).(2007). Report of the Standing Committee on Health. Healthy Weights For Healthy Kids. House of Commons.
72 Ibid.
73 Ibid.
74 Organization for Economic Co-operation and Development. (2011). Divided We Stand: Why Inequality Keeps Rising. OECD.

Taking a Life Course Perspective

The causes of overweight and obesity play out in different ways at different stages of kids' lives. If parents, health care providers, child care providers, schools and others in the child's life can intervene in the right ways at each life stage, our kids will be healthier and avoid problems associated with unhealthy weights.

Preconception and the prenatal period

A woman's health and weight before she becomes pregnant and her weight gain during pregnancy have a direct influence on her child's health and weight. If a woman is an unhealthy weight (either underweight or overweight), her baby's growth will be adversely affected.

The first six months of life

Breastfeeding is good for babies in many ways. It protects them from infectious diseases and promotes optimal growth, health and development.[78] It also protects against obesity. Each additional month that an infant is breastfed up to eight months of age reduces the risk of being obese later in life by four per cent.[79] Exclusive breastfeeding is particularly important for the first six months.[80]

The first 2,000 days of a child's life – from conception to school – play a critical role in "programming" his or her health, ability to learn and ability to relate to others (social functioning) later in life. This programming of the baby's future health is affected by his or her mother's body composition and her metabolism as she enters pregnancy. If a mother's BMI is too low or too high, it can have an adverse effect on the baby's growth, increasing the risk of obesity and diabetes.

Risk is not evenly distributed across society. For example, in non-Aboriginal populations, middle-aged men have the highest incidence of obesity and diabetes. In Aboriginal populations, the highest incidence of obesity and diabetes occurs in women of child-bearing age, which threatens their health and contributes to higher rates of overweight in the developing baby, child and adolescent and to a greater risk that the next generation of children will also be overweight.[75,76,77]

The early years

The early years of life are a time of rapid physical growth and change. They are also important to health throughout the lifespan. During these early years, children are learning what, when, and how much to eat. Their eating habits are shaped by cultural and familial beliefs, attitudes, and practices surrounding food and eating.[81] Childhood overweight and obesity tend to persist into later life.[82] Parents and caregivers

75 Barker DJ. (2007). The origins of the developmental origins theory. *J Intern Med.* 2007 May;261(5):412-7.
76 Li C, Kaur H, Choi WS, Huang TT, Lee RE, Ahluwalia JS. (2005). Additive interactions of maternal prepregnancy BMI and breast-feeding on childhood overweight. *Obes Res.* 2005 Feb;13(2):362-71.
77 Dyck R, Osgood N, Lin TH, Gao A, Stang MR. (2010). *Epidemiology of diabetes mellitus among First Nations and non-First Nations adults. CMAJ.* 182(3):249-56. doi: 10.1503/cmaj.090846.
78 World Health Organization.http://www.who.int/nutrition/topics/exclusive_breastfeeding/en/.
79 Harder T, Bergmann R, Kallischnigg G, Plagement A. (2005). Duration of Breastfeeding and Risk of Overweight: A Meta-Analysis. *American Journal of Epidemiology*. The Johns Hopkins Bloomberg School of Public Health.
80 Kramer MS, Kakuma R. (2012). Optimal duration of exclusive breastfeeding. Cochrane Database of Systematic Reviews, Issue 8. Art. No.: CD003517. DOI: 10.1002/14651858. CD003517.pub2.
81 Savage JS, Fisher JO, Birch LL. (2007). Parental influence on eating behavior: conception to adolescence. *J Law Med Ethics* 35(1):22-34.
82 Pocock M, Trivedi D, Wills W, Bunn F et al. (2010). Parental perceptions regarding healthy behaviours for preventing overweight and obesity in young children: a systematic review of qualitative studies. *Obesity Reviews*. 11:5;338-353.

play a vital role in helping young children establish eating habits that will shape their lives. Children tend to acquire their parents' health-related behaviours at a young age.[83] If children are exposed to a range of healthy food choices once solid foods are introduced into their diet (i.e., ideally after six months of exclusive breastfeeding), they are more likely to eat healthily later in life.[84] The early exposure to food and eating habits is particularly important given that Ontario children are growing up at a time of abundant access to palatable, high-calorie, low-cost foods.[85]

The transition to child care or school

A recent study by researchers at the University of Montreal and centre hospitalier universitaire Sainte-Justine Hospital Research Center found that children who attended child care were 65 per cent more likely to be overweight between ages four and 10, compared with those who stayed home with a parent.[86] The reason for these differences are not known, but may be related to nutrition and physical activity in child care settings. In Ontario, licensed child cares are regulated by the Ministry of Education. Among other things, licensed child care programs must provide meals for all children older than one, and nutritious between-meal snacks, with menus planned in advance and available to parents. Also, staff must post a daily program of activities that should include outdoor play and promote healthy growth and development.[87] However, we heard from many parents that the foods served in child care were not as healthy as what they would feed their children at home.

"I ask them what they had and it's chicken nuggets and fries. That's a big problem."
Parent focus group

Entering adolescence

During adolescence, children go through growth spurts and changes associated with puberty. Children gain an average of 30 to 40 pounds between the ages of 11 and 14.[88] Because adolescents are growing, they will be hungrier, eat more and need to sleep more. Good food choices and physical activity can help an adolescent reach a healthy weight. Despite parents' best efforts, a growing number of adolescents between the ages of 12 and 17 are an unhealthy weight, and a significant proportion are obese. Peers play an important role in adolescents' eating decisions as does food advertising – a significant proportion of which is directed at teens. Youth told us that when they are informed about healthy eating and aware of media efforts to "sell" them unhealthy foods, they are better able to withstand both peer and media pressure, and make healthy choices.[89]

83 Perryman ML. (2011). Ethical Family Interventions for Childhood Obesity. *Preventing Chronic Disease*. Sept; 8(5):A99.
84 Institute of Medicine. (2012). Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation. Editors: Glickman D, Parker L, Sim LJ, Del Valle Cook H and Miller EA. Committee on Accelerating Progress in Obesity Prevention; Food and Nutrition Board.
85 Savage JS, Fisher JO, Birch LL. (2007). Parental influence on eating behavior: conception to adolescence. *J Law Med Ethics* 35(1):22-34.
86 Geoffroy MC, Power C, Touchette E, Dubois L et al. (2012). Childcare and Overweight or Obesity over 10 Years of Follow-Up. *Journal of Pediatrics*. In press.
87 Link to Day Nurseries Act: http://www.elaws.gov.on.ca/html/statutes/english/elaws_statutes_90d02_e.htm.
88 National Centers for Disease Control and Prevention. (2000). Clinical Growth Charts: Stature for Age and Weight for Age Percentiles. National Center for Health Statistics, National Centers for Disease Control and Prevention. Last accessed December 3, 2012 at http://www.cdc.gov/growthcharts/clinical_charts.htm.
89 The Students Commission. (2012). Child and Youth Input to the Healthy Kids Panel. Rabab Kapasi and Davie Lowtan assisted Stoney McCart to present this report to the Healthy Kids Panel in November. YMCA.

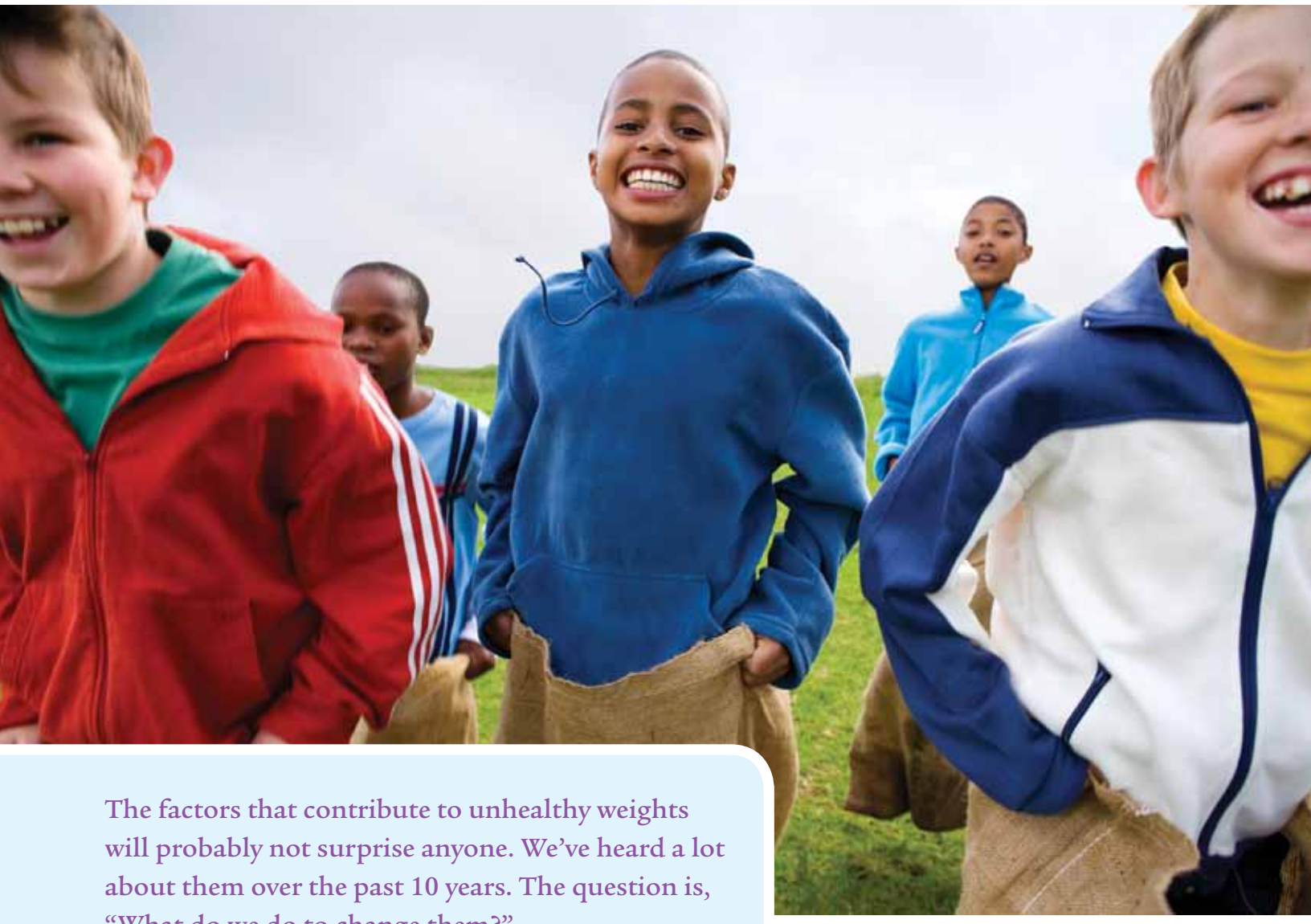
Late teens

As teens transition to adulthood, they spend more time away from home at college or university, socializing with friends and/or working. They are responsible for making more of their own decisions about food and activities.

According to a national U.S.-based longitudinal study of youth, the typical female gains between seven and nine pounds, while males gain between 12 and 13 pounds during the college/university years.[90] They appear to experience moderate but steady weight gain throughout early adulthood.[91] Although most do not need to worry about their weight, anyone who gains 1.5 pounds a year will become overweight over time.[92] This type of steady weight gain can influence their health during adulthood. It can be particularly problematic for young women who plan to become mothers. If they are not able to return to a healthy weight, it can affect their health during pregnancy and the health of their child.[93]

90 Zagorsky JL, Smith PK. (2011). The Freshman 15: A Critical Time for Obesity Intervention or Media Myth? *Social Sciences Quarterly* 92:5;1389-1407.
91 Ibid.
92 Ibid.
93 Li C, Kaur H, Choi WS, Huang TT, Lee RE, Ahluwalia JS. (2005). Additive interactions of maternal prepregnancy BMI and breast-feeding on childhood overweight. *Obes Res*. 2005 Feb;13(2):362-71.

III. Healthy Kids Strategy



The factors that contribute to unhealthy weights will probably not surprise anyone. We've heard a lot about them over the past 10 years. The question is, "What do we do to change them?"

How can Ontario create a present and a future where our children lead truly healthy, fulfilling lives? Where they...

- have the best start in life
- are loved and valued
- are surrounded by supportive families and friends
- feel good about themselves, and know how to cope with stresses and challenges in life
- feel safe and part of their communities
- know about healthy eating, have easy access to healthy foods, and make healthy food choices
- have time every day to play and be active
- get enough sleep
- have the health services they need
- are prepared for a future full of opportunities.

Ontario should focus on three areas that will make a significant difference in our children's weight and health:

1. Start all kids on the path to health

Good health begins even before babies are conceived. Healthy mothers have a much better chance of having babies who enjoy good health throughout their lives. We must provide the support young women need to maintain their own health and start their babies on the path to health.

2. Change the food environment

Parents know about the importance of good nutrition. They are aware that their kids should be eating lots of fresh fruits and vegetables, less sugar and fewer high-calorie snacks or processed foods. Parents told us they try to provide healthy food at home, but often feel undermined by the environment around them. They want changes that will make healthy choices easier.

Why focus on food?

To have the greatest impact on weight, we must focus on healthy eating. On average, we are all consuming too many calories – about the equivalent of one extra meal – every day. It's almost impossible to be active enough to burn off that many extra calories. Having said that, being physically active is also an important part of being a healthy kid.

3. Create healthy communities

Children's health does not begin and end with what they eat. Kids live, play and learn in their communities. Many policies and programs affect kids' ability to eat well and to be active. Communities must work together to improve child health. We need a comprehensive all-of-society approach to create healthy communities and reduce or eliminate the broader social and health disparities that affect child health.

1. Start All Kids on the Path to Health

Rationale

Children who start life at a healthy weight are more likely to grow up to be healthy-weight adults. To start all kids on the path to health, Ontario should focus on interventions that target women and children during preconception, the prenatal period and infancy. These are the life stages where we can have the greatest long-term impact on health and weight.

From preconception to infancy is critical to long-term health

For their own health and well-being, it is important for women to eat healthy foods, be active, get enough sleep, avoid smoking, have supportive friends, enjoy life, feel good about themselves and maintain a healthy weight. It is also important for their babies.

A woman's health and weight before she becomes pregnant and her weight gain during pregnancy have a direct influence on her child's health and weight.

- Behaviours such as smoking during pregnancy are associated with low birth weight – and babies with low birth weight can experience rapid catch-up which can lead to later obesity.[95]
- Being overweight or obese before pregnancy and excessive weight gain during pregnancy can be accompanied by a rise in blood sugar levels (gestational diabetes), which can cause the fetus to grow more quickly – and larger babies tend to be heavier in childhood.[96]
- Children of women who gain an excessive amount of weight during pregnancy had more than four times the risk of being overweight at age 3.[97]

The best nutritional start for babies[94]

- Breastfeeding
- No solid food until six months
- A variety of fruits and vegetables every day
- Only water in the cup
- Being part of an active family

Between 40 per cent to 50 per cent of pregnant women gain more weight during pregnancy than the Institute of Medicine and Society of Obstetricians and Gynecologists of Canada recommend.[98] Weight gain before and during pregnancy, combined with high rates of diabetes, is a particular issue for Aboriginal women.[99,100]

All mothers want to give their children the best start in life, and are motivated to make changes that will protect their child's health. However, most need information and many need support to improve their own health and protect their child's health. Prenatal programs provide a unique opportunity to promote women's and baby's health; however, these programs are provided by a mix of public health units, hospitals and private sector organizations. There are no standard provincial guidelines or core

94 Wen, Li Ming, Baur, Louise A, Simpson, Judy M, Rissel, Chris, Wardle, Karen, Flood, Victoria M. "Effectiveness of home based early intervention on children's BMI at age 2: randomised controlled trial" *BMJ* 2012; 344:e3732. Australian study, 2012.
95 KS Gibson, TP Waters, PM Catalano. (2012). *Obstetrics & Gynecology*, 2012.
96 Parket M, Rifas-Shiman SL, Oken E, Belfort MB, Jaddoe VW, Gillman MW. (2012). Second trimester estimated fetal weight and fetal weight gain predict childhood obesity. *J Pediatr* Nov; 161(5):864-870.e1.
97 Oken E, Tavares EM, Kleinman KP, Rich-Edwards, Gilman MW. (2007). Gestational weight gain and child adiposity at age 3 years. *Am J ObstetGynecol* 196:322.e1-8.
98 Schieve LA, Cogswell ME, Scanlon KS. (1998). Trends in pregnancy weight gain within and outside ranges recommended by the Institute of Medicine in a WIC population. *Matern Child Health J*. 2(2):111-6.
99 Lowell H and Miller DC. (2010). Weight gain during pregnancy. Statistics Canada, Catalogue no. 82-003-XPE. Health Reports, Vol. 21, no. 2.
100 Public Health Agency of Canada. (2011). Diabetes in Canada: Facts and figure from a public health perspective. Ottawa. p. 92.

curriculum, and no incentives for parents to attend classes. In fact, the cost of some prenatal courses puts them out of reach of some women.

Healthy nutrition in the first months of life

Breastfeeding is good for babies in many ways. It protects them from infectious diseases and promotes optimal growth, health and development.[101] It also protects against obesity.[102,103] However, a significant proportion of new mothers find it difficult to initiate breastfeeding, to breastfeed exclusively for the first six months and to continue breastfeeding up to age two (as recommended by the Public Health Agency of Canada and the Canadian Paediatric Society).

According to the 2011 Canadian Community Health Survey, 87 per cent of Canadian women who gave birth in the preceding five years initiated breastfeeding, and 27 per cent reported exclusively breastfeeding at six months (up from 16 per cent in 2006).[104] Women's ability to exclusively breastfeed their child for at least the first six months of life and to continue breastfeeding up to age two is affected by many factors, including: challenges initiating breastfeeding; early discharge from hospital – often before breastfeeding is fully established; lack of support in the community; family pressures to not breastfeed – including fathers' desire to be more involved in feeding babies; the easy availability of breast milk substitutes; and the difficulty associated with continuing breastfeeding when women return to the workplace.

Mothers who are encouraged and supported by their health care providers are more likely to form the intention to breastfeed and to initiate and continue breastfeeding.[105] The role of the physician in encouraging breastfeeding in culturally sensitive ways is particularly important in groups of women who are less likely to breastfeed.[106] Other health services can also support women who choose to breastfeed. For example, the World Health Organization has established its Baby Friendly Initiative (BFI) for health professionals. In hospitals that practice six or seven of the 10 BFI steps (see box on next page), mothers were six times more likely to

101 World Health Organization. http://www.who.int/nutrition/topics/exclusive_breastfeeding/en.
102 Harder T, Bergmann R, Kallischnigg G, Plagement A. (2005). Duration of Breastfeeding and Risk of Overweight: A Meta-Analysis. *American Journal of Epidemiology*. The Johns Hopkins Bloomberg School of Public Health.
103 Kramer MS, Kakuma R. (2012). Optimal duration of exclusive breastfeeding. Cochrane Database of Systematic Reviews, Issue 8. Art. No.: CD003517. DOI: 10.1002/14651858. CD003517.pub2.
104 Statistics Canada. (2012). Breastfeeding practices by province and territory. CANSIM table 105-0501.
105 Chung M, Ip S, Yu W, Raman G, et al. (2008). Interventions in primary care to promote breastfeeding: a systematic review. Evidence Synthesis No. 66. AHRQ Publication N, 09-05126-EF-1.
106 Academy of Breastfeeding Medicine (2011). American Academy of Pediatrics. (2012).

10 Steps to being designated a WHO baby-friendly hospital[107]

Step 1: Have a written breastfeeding policy that is routinely communicated to all health care staff

Step 2: Train all health care staff in the skills to implement the breastfeeding policy

Step 3: Inform all pregnant women about the benefits and management of breastfeeding

Step 4: Help mothers initiate breastfeeding within a half hour after birth

Step 5: Show mothers how to breastfeed and maintain lactation even when they are separated from their infants

Step 6: Give newborns no food or drink other than breast milk, unless medically indicated

Step 7: Practice rooming-in – allow mothers and infants to remain together 24 hours a day

Step 8: Encourage breastfeeding on demand

Step 9: Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants

Step 10: Foster the establishment of breastfeeding support groups and refer mothers to them at discharge from the hospital or clinic

achieve their goal of breastfeeding exclusively than those in hospitals that practice none of the steps.[108] The use of lactation consultants has been shown to improve breastfeeding practices and overall maternal and infant health.[109,110]

New mothers also need support outside hospital. For example, Australia operates a national breastfeeding helpline that has been shown to be a valuable source of information for new mothers.[111] It has contributed to better outcomes for mothers and babies. Ontario currently has programs, such as Healthy Babies Healthy Children, that have contact with all mothers within 48 hours of leaving hospital – a critical time period for establishing breastfeeding. This program could be used to support women who want to breastfeed.

Sleep is also extremely important in the first six months (and, in fact, throughout life). Babies who sleep fewer than 12 hours a day are twice as likely to be overweight at age three than their better rested peers.[112]

[107] Protecting, promoting and supporting breast-feeding: The special role of maternity services. A Joint WHO/UNICEF Statement. World Health Organization: Geneva, 1989.
[108] Declercq E, Labbock MH, Sakala C, O'Hara M. (2009). Hospital Practices and Women's Likelihood of Fulfilling Their Intention to Exclusively Breastfeed. *American Journal of Public Health*. 99(5):929-35.
[109] Hass D et al. (2006). Assessment of breastfeeding practices and reasons for success in a military community hospital. *Journal of Human Lactation* 22(4);439-445.
[110] McKeever P, Stevens B, Miller KL et al. (2002). Home versus hospital breastfeeding support for newborns: a randomized controlled trial. *Birth* 29;258-265.
[111] http://www.health.gov.au/breastfeeding.
[112] Patel SR, Hu FB. (2008). Short sleep duration and weight gain: a systematic review. *Obesity* (Silver Spring). March;16(3)643-653.

Recommendations

To start all kids on the path to health:

1.1 Educate women of child-bearing age about the impact of their health and weight on their own well-being and on the health and well-being of their children.

Ontario's public health system must develop guidelines and tools that the public health system, primary care providers and the education system will use to deliver a co-ordinated education program for all young women in Ontario of child-bearing age and their partners. The program should reinforce the importance of: healthy eating and active living, smoking prevention and cessation, and maintaining a healthy weight both before becoming pregnant and during pregnancy.

1.2 Enhance primary and obstetrical care to include a standard pre-pregnancy health check and wellness visit for women planning a pregnancy and their partners.

Primary care and obstetrical practitioners should provide this service and the health care system should actively promote it to women planning a pregnancy. Most pregnancies in Ontario are planned. This creates an opportunity for would-be parents to work with their health care practitioners to give their children the best start in life. The wellness visit should include a routine health assessment to detect any factors that might increase risk during pregnancy, emphasize the importance of being a healthy weight before and during pregnancy, offer assistance with smoking cessation (if required) and provide nutrition and weight counselling. It should also include the role of sleep in health and healthy weights.

1.3 Adopt a standardized prenatal education curriculum and ensure that courses are accessible and affordable for all women.

All care providers and organizations offering prenatal education should adopt a standardized prenatal education program that includes: prenatal care and healthy eating; changes in pregnancy, pre-term labour and physical and emotional fitness; newborn care and safety; and breastfeeding and postpartum depression.

1.4 Support and encourage breastfeeding for at least the first six months of life.

Women often need support to initiate and continue breastfeeding. To support mothers who choose to breastfeed, Ontario should:

- Require all hospitals with labour and delivery units and all pediatric hospitals to be designated as a World Health Organization (WHO) Baby Friendly Initiative (see box on previous page) – including having enough certified lactation consultants on staff
- Encourage all health care practitioners to implement prenatal and postnatal best practice guidelines to support breastfeeding
- Enhance the Healthy Babies Healthy Children program to include intensive breastfeeding counselling as part of its 48-hour follow-up with mothers and babies discharged from hospital
- Provide 24-hour phone access to breastfeeding support from a certified lactation consultant

- Endorse the WHO International Code of Marketing of Breast Milk Substitutes while ensuring that efforts to limit promotion of breast milk substitutes do not disadvantage low-income families
- Reinforce with employers that breast-feeding is protected in the Ontario Human Rights Code.

1.5 Leverage well-baby and childhood immunization visits to promote healthy weights and enhance surveillance and early intervention.

Pediatricians and primary care providers see infants and young children regularly in the early years for well-baby and immunization visits. These visits are excellent opportunities to take height and weight measurements and to support parents' efforts to encourage healthy eating, physical activity and adequate sleep. The Ministry of Health and Long-Term Care, the Ontario Medical Association practitioners, the Canadian Paediatric Society, the College of Family Physicians of Ontario and other stakeholders should review these visits to see how they can be optimized to promote healthy weights and used to enhance the capacity for surveillance and early intervention.

2. Change the Food Environment

Rationale

Parents who participated in our survey and focus groups told us that they know how important healthy eating is and they are trying to provide good nutrition for their families. However, they often feel undermined by larger social forces, including the easy availability and heavy marketing of unhealthy foods, lack of easy-to-understand information regarding the calories in many foods – particularly meals served in restaurants, and the problems some families face finding and/or affording nutritious foods. They asked for more supportive food environments that would make it easier for them to choose healthy foods.

The impact of food advertising

Despite parents' best efforts to educate their kids about healthy eating, young people tell us they receive a lot of their information about food from the media. And that advertising works.[113] For example, children in the U.S. who view fast food television ads are about 50 per cent more likely to eat fast food.[114,115] Advertising can be particularly persuasive because children younger than age 12 may not yet have the skills and judgment to properly understand the techniques used.[116]

Parents told us it is extremely difficult for them to continually withstand the pressure from both advertising and their children: to always be saying "no."[117] In general,

[113] Hastings G, Stead M, McDermott L, Forsyth A, MacKintosh AM, Rayner M, Godfrey C, Caraher M and Angus K. (2003). Review of Research on the Effects of Food Promotion to Children. Glasgow, UK: Centre for Social Marketing.
[114] Buijzen M, Schuuman J, and Bomhof E. (2008). Associations between children's television advertising exposure and their food consumption patterns: A household diary-survey study. *Appetite.* Vol. 50. pp. 231-239.
[115] Chamberlain LJ, Wang Y, and Robinson TN. (2006). Does children's screen time predict requests for advertised products? Cross-sectional and Prospective Analyses. Archives of Pediatrics & Adolescent Medicine. Vol. 160.
[116] Pellizzari, R and Cook, B. (2008). Food and Beverage Marketing To Children. Toronto Public Health. Staff Report.
[117] Buijzen M and Valkenburg PM. (2008). Observing purchase-related parent-child communication in retail environments: A developmental and socialization perspective. *Human Communications Research.* Vol. 34:50-69. (cited in Dietitians of Canada)

Canadian parents are in favour of efforts to restrict marketing of unhealthy foods.[118]

There are two possible ways to reduce the impact of food advertising on children: voluntary programs or regulation. In April 2007, Canada's food and beverage industry launched the voluntary Canadian Children's Food and Beverage Advertising Initiative (CAI). Under the CAI, leading Canadian food and beverage advertisers have committed to: not advertise directly to children under age 12 or to only advertise products that meet nutritional standards, such as Canada's Food Guide or the Heart and Stroke Foundation's Health Check program. Participants also agreed to incorporate only products that meet these criteria in interactive games for children under age 12 and to not seek product placements in programs directed to kids or advertise food or beverage products in elementary schools.

According to the 2011 evaluation of the 18 participating companies,[119] the voluntary program has had a positive impact: participants have reformulated many products – reducing trans fat, sodium, and sugar, and adding fibre, whole grains, vitamins and minerals. No product in the program is more than 200 calories and every meal is less than 600 calories. In addition, a 2011 spot check of television advertising on children's programming over a 10-day period found:

- 26 per cent of ads were for food and beverage commercials and, of those, 92 per cent were for products covered under the CAI – up from 80 per cent in 2010
- All quick service restaurant meals advertised included more than half a serving of fruit.

The CAI demonstrates that a voluntary program that limits advertising works, but it is currently limited to 19 companies. To truly change the food environment, Ontario needs more consistent, predictable advertising requirements that will level the playing field and not benefit companies that choose not to participate in the voluntary program. A policy that applies to all advertisers – not just the socially minded – is a matter of both fairness and effectiveness.

Unfortunately, Ontario children are also exposed to advertising in U.S. media, including websites, where progress on improving child-directed advertising has been slower. For example, between 2009 and 2012, cereal companies improved the nutrition of most cereals marketed to children and reduced some forms of advertising directed to children, including some websites that use online video games to promote certain products (i.e., advergames).[120] However, in 2011, preschoolers were still exposed to 595 cereal ads a year (1.6 a day) and kids between the ages of six and 11 saw more than 700 ads a year (1.9 ads a day).[121] The companies' media strategies have expanded to market products targeted to "tweens" using social media, such as Facebook, and to make health claims targeted to parents that imply that high-sugar cereals are healthy options for children.[122] In the U.S., media spending to promote child-targeted cereals increased 34 per cent between 2008 and 2011.[123]

[118] Ipsos-Reid. (2011). Canadian Perceptions of, and Support for, Potential Measures to Prevent and Reduce Childhood Obesity. Prepared for the Public Health Agency of Canada.
[119] Advertising Standards Canada. (2012). 2011 CAI Compliance Report.
[120] Cereal FACTS. (2012). Yale Rudd Center for Food Policy and Obesity.
[121] Ibid.
[122] Harris JL and Graff SK. (2012). Protecting young people from junk food advertising: Implications of psychological research for First Amendment law. *American Journal of Public Health*. Feb;102(2):214-222.
[123] Cereal FACTS. (2012). Yale Rudd Center for Food Policy and Obesity.

Instead of introducing voluntary industry measures to curtail advertising, Quebec banned food advertising targeting children.[124] A recent analysis found that the Quebec approach resulted in a 13 per cent reduction in spending on fast foods (U.S. $88 million a year) and between 2 billion and 4 billion fewer calories consumed by children.[125] It was particularly effective in changing the purchasing and consumption patterns of French-speaking families, who were not exposed to "spillover" media from neighbouring jurisdictions (e.g., the U.S., Ontario). Moreover the benefits of less exposure to food advertising extend beyond childhood and continue to influence children as they become young adults. Young French-speaking adults in Quebec were 38 per cent less likely to purchase fast food than their French-speaking peers in Ontario.[126]

Gaps in food knowledge and skills

When it comes to food choices, there continues to be a gap between what we know about healthy foods and what we choose to eat. While it is unrealistic to expect that Ontario families will give up all pizza and fast food, stop ordering sugar-sweetened beverages and never eat cake or cookies, parents told us they would like opportunities to develop the knowledge, shopping skills and cooking skills to choose healthy foods most of the time, and to treat high-calorie non-nutritious foods as just that: occasional "treats."

Fast food is one of the key causes of unhealthy weights because it significantly increases the number of calories consumed per meal. In one study, 11- to 18-year-olds who regularly ate fast food consumed an extra 800 calories per week for boys and 660 for girls. These extra calories translate into a possible weight gain of 10 pounds or more per year.[127,128,129]

In many ways, this kind of change is already happening. Parents told us that they look for lower calorie, lower sodium options in the grocery store, and grocery retailers are beginning to provide more nutritious alternatives – because there is demand from the shopping public.

Parents told us they want to shop "healthy," but they often find food labels confusing. When they eat out, they are often unaware of how many calories are in the meals they order. In fact, people generally underestimate the calorie content of take-out and restaurant foods.[130]

Studies consistently show that "defaults" – such as meal deals that package a burger or sandwich with fries and sugar-sweetened beverages – exert a powerful influence on choice. On the other hand, healthy "defaults" can encourage people to make healthy choices. For example, customers at one fast food chain who received a default menu that highlighted lower-calorie sandwiches were 48 per cent more likely to choose a lower-calorie option than those given a mixed menu that highlighted both low- and high-calorie options.[131] The Disney Corporation has been

124 Dhar T, Baylis K. (2011). Fast Food Consumption and the Ban on Advertising Targeting Children: The Quebec Experience. *Journal of Marketing Research.*
125 Ibid.
126 Ibid.
127 Bowman S, Vinyard BT. (2004). Fast food consumption of US adults: impact on energy and nutrient intakes and overweight status. *Journal of the American College of Nutrition* 23:2;163-168.
128 Niemeier HM, Raynor HA, EE, Lloyd-Richardson EE, Rogers ML, Wing RR. (2006). Fast food consumption and breakfast skipping: predictors of weight gain from adolescence to adulthood in a nationally representative sample. *Journal of Adolescent Health* 39;842-849.
129 French SA, Story M, Neumark-Sztainer D, Fulkerson JA, Hannan PJ. (2001). Fast food restaurant use among adolescents: associations with nutrient intake, food choices and behavioural and psychosocial variables. *International Journal of Obesity* 25;1823-33.
130 Tandon PS, Zhou C, Chan NL, Lozano P, Couch SC, et al. (2011) The Impact of Menu Labeling on Fast-Food Purchases for Children and Parents. *Am J Prev Med*; 41(4):434-438
131 Margo G. Wootan. (2012). Children's Meals in Restaurants: Families Need More Help To Make Healthy Choices. *Childhood Obesity* 8:1. February.

successful in its efforts to offer healthier default items with children's meals at its theme parks. The company has changed the default beverages to healthy choices, such as 100 per cent juice, water and low-fat milk, and offers fruits and vegetables as the default side dishes with children's meals. Two-thirds of families stay with the healthy children's meal defaults.[132]

By providing more easy-to-understand information about nutrition where families make purchasing decisions, society can change the defaults and make healthy choices easier. For example, some grocery chains have adopted simple-to-use nutrition rating systems – developed by independent nutrition experts – that tell shoppers how nutritious each product is in terms of vitamins, minerals, dietary fibre, whole grains, Omega-3s, fats, sodium and sugar. Some stores have dietitians who will talk to shoppers about their purchases and recommend healthier options. Some stores offer cooking classes, and provide opportunities for families to develop cooking skills and prepare more nutritious meals at home.

There has also been some progress on the fast food front: all major chains in Canada now offer some healthier options and post information about the calories in their food on websites and smartphone apps and printed brochures available in their stores.[134] One fast food chain has launched a website where consumers can ask anything they want to know about its products; it also provides a nutrition calculator so customers can learn the dietary value of adding or subtracting items from their order, or even substituting apple slices for fries. However, consumers must seek out this information. It is not necessarily obvious right at the places where they are ordering food.

Menu labelling – combined with other interventions – has the potential to increase knowledge and influence food choices. In one study, participants who received labelled menus consumed 14 per cent fewer calories than those who did not. People were more likely to order foods with fewer calories when the menu also included information on the recommended daily caloric intake for an average adult.[135]

In addition to systems that highlight or promote healthy foods, the panel considered the option of putting warning labels on "unhealthy" foods. While it is relatively easy to identify and rate foods that meet certain nutritional standards, trying to label certain foods as "unhealthy" or insisting on warnings on labels would take years and likely open Ontario to costly litigation.

What about taxing unhealthy foods?

Panel members considered the use of taxation to shape buying and eating habits. Arguments in favour of taxation included: the fact this approach was used effectively in the tobacco control to reduce consumption by youth who are highly price sensitive; and the potential to use the tax revenue to invest in healthy eating activities. Arguments against were the difficulty defining which foods should be taxed, the potential for legal challenges, and the concern that taxes would mainly hurt consumers, many of whom struggle financially now to feed their families. According to a national survey, there is limited support among Canadians for taxing junk food.[133]

In the end, we could not reach consensus, so there is no recommendation on taxation.

[132] Ibid.
[133] Ipsos-Reid. (2011). Canadian Perceptions of, and Support for, Potential Measures to Prevent and Reduce Childhood Obesity. Prepared for the Public Health Agency of Canada.
[134] Reisman R. (2012). Choose It and Lose It.
[135] Roberto CH et al. (2010). Evaluating the Impact of Menu Labelling on Food Choices and Intake. *Am J. Public Health* February; 100(2):312-318.

The panel believes we can achieve our goals and targets more quickly by giving parents what they told us they need to be able to make healthier choices: the skills to read the nutrition facts table on products and a food industry that provides transparent nutrition rating systems and more healthy options.

Access to healthy, affordable, culturally appropriate foods

Up to this point, we have mainly made the case for activities that will reduce demand for unhealthy foods. But parents told us that, while having more food knowledge and skills will help, it is not enough. The province must also ensure that families have easy access to safe, affordable, nutritious and culturally appropriate foods. Access is particularly important in areas where fresh fruits and vegetables are not readily available, such as rural and remote communities, as well as urban "food deserts."

Access to nutritious healthy food is a serious child health issue. One in 10 children in Canada lives below the poverty line and many go to school hungry. Canada is one of the few developed countries without a national nutrition program for children.[136] We can make a difference by ensuring better access to affordable healthy foods where kids live, learn and play.

Ontario already has a number of initiatives designed to improve access to affordable, nutritious foods, including:

- The Good Food Box, a non-profit fresh fruit and vegetable distribution system. The Good Food Box is a large buying club. Families who use the service benefit from the savings of buying in bulk, which means that fresh food is more affordable for them. The program also uses Ontario-grown products whenever possible, which also helps support local farmers.[137,138] There are about 30 Good Food Box programs operating in Ontario.
- Breakfast and lunch programs provided by some schools – particularly those serving kids in low-income neighbourhoods. School-based programs have the potential to increase fruit and vegetable consumption among children.[139] They can also help reduce unhealthy weights by increasing kids' knowledge about nutrition and healthy food choices.[140] Currently, Ontario has a patchwork of school-based programs across the province, and the main barrier to establishing or maintaining these programs is the high cost. The Ministry of Children and Youth Services funds the Student Nutrition Program, which provides funding for schools and community agencies to offer healthy breakfasts, snacks and lunches at many schools. As part of the province's Poverty Reduction Strategy, 700 new breakfast programs were created

136 Breakfastforlearning.ca
137 Johnston J and Baker L. (2005). Eating outside the box: Foodshare's good food box and the challenge of scale. *Agriculture and Human Values*, 22;313-325.
138 Miewalkd C, Holben D, Hall P. (2012). Role of a Food Box Program in Fruit and Vegetable Consumption and Food Security. *Canadian Journal of Dietetic Practice and Research*, 73(2);59-65.
139 Reinaerts E, Candel M. (2007). Increasing children's fruit and vegetable consumption: distribution or a multicomponent programme? *Public Health Nutrition* 10:939-47.
140 Pascal CE. (2009). With our best future in mind: Implementing early learning in Ontario. Report to the Premier by the Special Advisor on Early Learning.

in 2008, and 300 existing programs in communities with the highest need were expanded. Some programs, such as *Breakfast for Learning,* are sponsored by private companies. These models could form the basis for a more universal program.

The food environment in schools and child care settings

Children spend **at least six hours a day** – or 40 per cent of their waking time – at school[141] or in child care, and parents are concerned about the quality of food provided in those settings.

"It is difficult to raise a healthy child in an unsupportive environment. You can do everything 'right' at home, but then send your child to child care and they are fed unhealthy foods."

Focus group parent

Despite the Ministry of Education's School Food and Beverage Policy that requires all Ontario school cafeterias to sell only healthy foods, parents talked about the fundraising efforts that bring unhealthy foods into schools, such as hot dog sales, pizza days and bake sales. Schools often depend on the revenue from these sales to support activities.

"Schools should be required to promote healthy eating. We have such enthusiasm for hot dog days (with no veggie dog option), as well as pizza days, I can't comprehend. A healthy meal is not pizza + fruit drink + fruit snack. Nor is it the chocolate milk being provided…. They are all processed foods geared towards kids."

Parent survey

Ontario has a range of other policies to ensure that children receive nutritious foods in child care and school settings, such as the Day Nurseries Act and the Ministry of Child and Youth Services Nutrition Guidelines for Student Nutrition Programs. However, these policies differ considerably and can cause confusion when applied in the same settings.

Recommendations

With a few key changes, we can create a healthier food environment and make healthy food choices the easy choices for Ontario families.

2.1 Ban the marketing of high-calorie, low-nutrient foods, beverages and snacks to children under age 12.

While Ontario families will continue to be exposed to "spillover" media from the U.S., the panel recommends that Ontario use legislation as one tool – establish a mechanism to monitor the implementation and impact of the three-part strategy – to create a healthier food environment. The ban should include advertising targeting children on television, in magazines, on billboards, online, and in stores and fast food restaurants in Ontario. Because many companies will be advertising their products nationally, programs and magazines produced in other parts of the country

[141] The Education Act specifies that there must be at least five instructional hours/day, plus minimum 40 minute lunch and two recesses of at least 10 minutes (total of six hours minimum at school each day).

will be available in Ontario. In addition to passing its own legislation, Ontario could work with other governments through the Federal/Provincial/Territorial Health and/or Health Promotion/Healthy Living Ministers to encourage a consistent, pan-Canadian approach.

2.2 Ban point-of-sale promotions and displays of high-calorie, low-nutrient foods and beverages in retail settings, beginning with sugar-sweetened beverages.

Start with sugar-sweetened beverages because they contribute a significant amount of calories to kids' diets. Ontario should consider using the definition of sugar-sweetened beverages developed by the U.S. Centers for Disease Control and Prevention.

"Remove all junk food from the cashier's lines and external aisles in supermarkets and stores. Treat junk food displays like you would treat cigarette displays. Place the junk food in the middle aisles on the top shelves so that little kids cannot see them and easily reach them."

Parent survey

What are sugar-sweetened beverages?[142]

Sugar-sweetened beverages (SSBs) are those that contain caloric sweeteners and include:

- Soft drinks: Non-alcoholic, flavoured, carbonated or non-carbonated beverages usually commercially prepared and sold in bottles or cans.
- Soda, pop, soda pop: Same as soft drink.
- Fruit drinks/ades or punches: Sweetened beverages of diluted fruit juice.
- Sports drinks: Beverages designed to help athletes rehydrate, as well as replenish electrolytes, sugar and other nutrients.
- Tea and coffee drinks: Teas and coffees to which caloric sweeteners have been added.
- Energy drinks: Most energy drinks are carbonated drinks that contain large amounts of caffeine, sugar and other ingredients, such as vitamins, amino acids, and herbal stimulants.
- Sweetened milks or milk alternatives: Beverages prepared by blending sweetened powder or syrup and milk.*

* Though the body's response to added sugar in milk may differ from that of other SSBs because of the presence of protein and other nutrients, adding sugar to milk substantially increases the calories per serving.

[142] The CDC Guide to Strategies for Reducing the Consumption of Sugar-Sweetened Beverages, March 2010.

2.3 Require all restaurants, including fast food outlets and retail grocery stores, to list the calories in each item on their menus and to make this information visible on menu boards.

This change will put the information families need at the point of purchase. The new legislation (or regulatory changes to existing legislation) should also require restaurants and retail stores that serve prepared foods to list the recommended daily caloric intake for the average child, youth and adult on their menus and menu boards.

2.4 Encourage food retailers to adopt transparent, easy-to-understand, standard, objective nutrition rating systems for the products in their stores.

Customers should have easy access to information about each store's rating system, what it means, who developed it and how to use it when shopping. To meet the growing consumer demand for healthier food options, the panel encourages the food manufacturing industry to continue to develop and promote healthier products. We also encourage food retailers to provide services like cooking classes and dietitians in their stores that can help customers become more informed about the foods they buy and eat, and how to prepare nutritious meals.

2.5 Support the use of Canada's Food Guide and the nutrition facts panel.

Both the Canada Food Guide and the nutrition facts panel are the responsibility of the federal government. Ontario should support the use of these tools to help parents, children and youth make informed food choices. The province should also encourage the federal government to make the nutrition facts panel easier to read and use, and to educate people in its use.

2.6 Provide incentives for Ontario food growers and producers, food distributors, corporate food retailers, and non-governmental organizations to support community-based food distribution programs.

Ontario should establish financial incentives, such as tax-related initiatives, to encourage the private sector to sell fresh produce, dairy and milk products to community-based food distribution programs. The panel encourages non-governmental organizations to leverage their community infrastructure to ensure families are aware of these programs and to build community capacity to deliver these programs.

2.7 Provide incentives for food retailers to develop stores in food deserts.

Municipal and provincial governments should explore the types of incentives used in other jurisdictions to attract stores to food deserts thereby increasing access to fresh food and creating jobs, such as providing tax incentives and rebates, creating zoning allowances and providing planning support. For example, the U.S. government has established the Healthy Food Financing Initiative to offset the costs associated with creating and maintaining grocery stores in underserviced areas.

When the food deserts are in neighbourhoods with high rates of social disparities (e.g., low incomes, low high school graduation rates, high rates of youth crime), these retail food developments should be linked with community hubs being developed by non-governmental organizations, such

as the YMCA and the United Way. This type of collaboration will support overall child health in at-risk neighbourhoods by increasing access to a combination of healthy food, physical activity, parenting programs and other community services.

2.8 Establish a universal school nutrition program for all Ontario publicly funded elementary and secondary schools.

Leverage existing school nutrition programs, extending them to reach every child. These programs should include learning about where food comes from and how it is grown, as well as the hands-on experience of cooking and access to healthy foods for those coming to school hungry. Every effort should be made to ensure these programs are culturally sensitive. Consider engaging corporate sponsors and using a competitive social finance approach to fund breakfast and lunch programs where required.

Ensure the programs incorporate the key features of successful school-based initiatives, including: ensuring a long-term commitment (i.e., at least 12 months), providing teacher training, integrating the nutrition program with the curriculum, promoting leadership from students and school food service staff, and involving parents at school and at home.[143] The programs should also work to develop fundraising activities that promote healthy foods.

2.9 Establish a universal school nutrition program for First Nations communities.

Ontario should work with First Nations leadership and the federal government to identify a culturally appropriate way to deliver a universal school nutrition program that will meet the needs of children in First Nations communities.

2.10 Develop a single standard guideline for food and beverages served or sold where children play and learn.

Extend Ontario's School Food and Beverage policy to apply to all publicly funded, subsidized or regulated settings where children play and learn, including: Early Years Centres, Best Start Hubs, child care settings, schools, and community sport and recreation facilities. Ensure the standard policy and guidelines reflect culturally appropriate foods. Until the single standard guideline is developed and approved, all settings should be held accountable for fully implementing any existing standards and guidelines and should have access to the resources required to implement those standards.

[143] Knai C, Pomerlau J, Lock K, McKee M. (2006). Getting children to eat more fruit and vegetables: A systematic review. *Preventive Medicine* 42;85-95.

3. Create Healthy Communities

Rationale

Parents told us that, in addition to a healthier food environment, they want help encouraging their kids to be more active and engaged in their communities. The food strategies the panel has recommended will be most effective when they are integrated with broader, community-driven efforts to raise healthy kids. Just as kids need access to healthy foods, they need opportunities to play, spend time with friends and family, and to learn how to manage stress.

We also focus on the support and treatment needs of children and youth struggling with unhealthy weights, and on the mental health and resilience required for kids to be healthy. As much as possible, we must build on or leverage existing programs, services and providers.

The need for social change

As parents pointed out, our problems with food are part of larger social trends: a time-stressed culture that – in just a couple of generations: has completely changed eating habits and activity levels; is coping with unprecedented technological advances; feels rushed, tired and socially disconnected; worries about financial stability and income disparities; and is experiencing high rates of mental health problems. To help parents raise healthy kids, we need social change. We need supportive communities that promote and protect health, and help families find balance in their lives.

Ontario has significant experience in achieving social change – particularly for young people. Only 7.4 per cent of teenagers aged 12 to 18 smoke in Ontario today – compared to 13.1 per cent in 2000/01.[144]

Children and youth who enjoy good mental health respond better to life's challenges and make healthier choices. We can foster children's resilience by focusing on positive relationships, experiences and inner strengths such as values, skills and commitments. We can create a strong sense of belonging at home, in school and in communities; build on children's strengths and competency; and encourage their autonomy and ability to make decisions that will enhance their health and well-being.

We have almost universal compliance with seatbelt laws. We have successfully introduced recycling programs. We have introduced graduated licensing and improved driver training, which has significantly reduced car accidents involving young drivers. It is no longer the norm in Ontario to smoke or to drink and drive. The province is now actively engaged in programs to reduce bullying and improve children's mental health. We are skilled at using social marketing – a combination of education, marketing, policy, programs, legislation, structural change and other tools or techniques – designed to change attitudes and encourage Ontarians to do things that are good for them and for their communities. We must apply those skills to improve child health and tackle unhealthy weights.

Technology has been blamed for contributing to obesity, but it can also be used to promote health: to nudge people to make healthier choices. For example, the Surgeon General in the U.S. used the Healthy Apps Challenge to encourage developers to use innovative technologies to provide tailored health information and empower people to engage in health promoting behaviours related to physical activity, healthy eating, and physical, mental

[144] Canadian Community Health Survey 2000/01, Statistics Canada and Canadian Community Health Survey 2009, Statistics Canada.

and emotional well-being. Entries were judged based on their usefulness, innovation, the degree to which they are evidence-based, their potential impact and their "fun" factor. Three of the four winning apps allow users to scan bar codes on food products to see how healthy they are, and to help people track what they've eaten and how active they are.[145]

The potential of a community development approach

Ontario already supports a number of health, education and recreation programs that promote physical activity and healthy eating, as well as other aspects of child health. These programs have developed over the past 10 to 15 years in an ad hoc way. Some are funded by the province, some by municipalities and others by non-governmental organizations. Some have been very effective, but this patchwork approach has not had the same measureable impact as more co-ordinated, community-driven initiatives in other jurisdictions. These programs could be leveraged or enhanced.

Co-ordinated, community-wide efforts to influence health appear to be effective. For example, EPODE (Ensemble Prévenons l'Obesité des Enfants – Together Let's Prevent Childhood Obesity) developed in France in 1992 and now in use in 15 countries,[146] including Australia, has a highly successful track record. The original French communities saw the proportion of overweight and obese children drop from 12 per cent to 8.8 per cent over 12 years. Over that same period, the proportion of overweight children in control towns increased to 17 per cent.[147] In more recent implementations of the program, some communities in Europe have seen a remarkable 22 per cent decrease in childhood overweight and obesity within just a few years – more than the ambitious target set for Ontario.[148]

EPODE is a community development model. It starts with high-level political commitment within the community and a co-ordinator who brings all players together to develop common goals and better ways to work together. The activities vary depending on each community's needs. In one community in France, the program included special lessons in schools and colleges, the distribution of 7,200 school breakfasts, and factory visits. It engaged preschools, schools, local sports and parents associations, catering structures, health professionals, elected representatives, and both private and public sector stakeholders. Activities were supported by local doctors and teachers, as well as dietitians who visited classrooms and organized lectures on healthy eating for parents.[149] As a result, eating habits changed: for example, the proportion of families that ate chips once a week fell from 56 per cent to 39 per cent.[150]

EPODE communities use a wide range of activities to achieve broad child health goals, such as: organizing events that allow children to try unfamiliar foods; building a model farm in the local shopping centre with cows and goats for the children to milk; taking kids to an agricultural fair to meet farmers and find out where their

145 http://sghealthyapps.challenge.gov.
146 Propel Centre for Population Health Impact. (2012). Heart Healthy Children and Youth Case Profile: EPODE. Prepared for Heart and Stroke Foundation.
147 Presentation to the Healthy Kids Panel from J-M Borys.
148 EPODE International Network Press Release. – http://www.epode-internationalnetwork.com/sites/default/files/EIN_Viasano_PressRelease.pdf.
149 Borys J-M, Le Bodo Y, Jebb SA, Seldell C, Summerbell C, et al. (2011). EPODE approach for childhood obesity prevention: methods, progress and international development. *Obesity Reviews* 13:4;299-315.
150 Westley, H. (2007). Thin living. *British Medical Journal*:335.

food comes from; setting up walking trails with fruit tasting stops; and launching theme campaigns that encourage the whole community to drink more water or eat more fruits and vegetables.

The role of schools and child care settings

Ontario funds 14 years of full-day school beginning at age four. In fact, Ontario kids spend at least six hours a day in school or child care. Outside the home, schools and child care settings are the best places to reach kids and promote healthy habits. Ontario has established a School Food and Beverage Policy in elementary and secondary schools that prohibits the sale of high-calorie, low-nutrient food and drinks. However, the nutrition standards do not apply to lunches or snacks brought from home or purchased off-site, and there are 10 special event days during the school year when the nutrition standards do not apply to allow for bake sales, pizza days and hot dog sales that do not meet the standards.

Ontario has also established a Daily Physical Activity (DPA) policy that requires all students in grades 1 through 8 to participate in a minimum of 20 minutes of physical activity each day.[151] However, parents, teachers and students tell us the DPA policy is not being implemented consistently and is not having the desired impact. After six years, Ontario's DPA policy does not appear to have had a significant impact on kids' activity levels. For example, a recent study of grades 5 and 6 students in 16 Toronto schools demonstrated that fewer than half of the participating children were provided with DPA every day and not a single child engaged in sustained bouts of moderate-to-vigorous physical activity (i.e., for 20 or more minutes).[152] On the more positive side, children who did engage in DPA every day were significantly more active than their peers. Those who had at least one bout of sustained moderate-to-vigorous activity were more active and fewer of these children were overweight.[153]

Why is DPA not working?

The policy is recent and has not been extensively evaluated yet; however, some time-limited studies indicate that the policy may not take into account kids' natural activity patterns or the demands on teachers. Kids tend to engage in short, sporadic bursts of activity throughout the day, rather than 20 minutes of sustained activity.[154] We also heard that, with so many topics being added to the curriculum, teachers find it difficult to integrate the DPA and still achieve all other learning goals. Play-based learning – teaching strategies that combine academic learning and physical activity – may provide the answer. Play engages children in their own learning and makes learning fun. Play-based learning is associated with greater social, emotional and academic success.[155] A well-designed play-based curriculum can be used to both meet the DPA requirements

A healthy school is expected to provide:

- quality instruction
- a healthy physical environment
- a supportive social environment
- community partnerships.

[151] http://www.edu.gov.on.ca/extra/eng/ppm/138.html.
[152] Stone MR, Faulkner G, Zeglen-Hunt L, Bonne JC. (2012). The Daily Physical Activity (DPA) Policy in Ontario: Is It Working? An Examination Using Accelerometry-measured Physical Activity Data. *Can J Public Health*:103;3.
[153] Ibid.
[154] Stone, Rowlands and Eston. (2008). The use of high-frequency accelerometry monitoring to assess and interpret children's activity patterns. Children and Exercise XXIV, London, UK: Routledge, pp. 150-153.
[155] Council of Ministers of Education, Canada (CMEC). (2011). CMEC Statement on Play-Based Learning. Available at: www.cmec.ca.

and ensure children are active throughout the school day.[156]

A number of schools are looking beyond "teaching" about health to creating healthy schools. The Ministry of Education has developed Foundations for a Healthy School, a framework that helps schools become a community hub and tackle a range of health issues, including healthy eating, active living, active transportation (walking or riding a bike to school instead of being driven), bullying prevention, mental health and healthy growth and development.

Efforts to create healthy environments are not limited to school-age kids. A number of communities across Ontario are creating Best Start or Child and Family Hubs (often located in schools), where parents and children can access parenting, early learning, literacy and child health services at one site close to home. These sites also have the potential to be part of a community-wide effort to help parents and children improve nutrition and physical activity.

The importance of role models and champions

To create healthy communities for our kids, the professionals who teach and care for children must be role models and champions. They must be knowledgeable about:

- the risk factors for unhealthy weights
- strategies to help children maintain a healthy weight, and
- effective interventions.

They should play a key role in reducing the stigma associated with weight problems and eating disorders. In particular, health care professionals should be aware of: the links between mental health and weight problems; how medications to manage depression affect weight gain; and strategies kids can use to manage these issues. They should also be able to respond to the nutrition and physical health needs of children with physical disabilities that affect their ability to participate in physical activity.

[156] Ibid.

The potential to leverage other strategies

Ours is not the only strategy trying to influence child health. Some have similar health messages, and others – such as transportation strategies and municipal plans – can have a direct effect on how active kids are and how easy it is for families to raise healthy kids. Ontario also has comprehensive strategies that are working upstream to address the underlying causes of unhealthy weights, such as the Poverty Reduction Strategy and the Mental Health and Addictions Strategy. These strategies are critical to Ontario being able to achieve its target to reduce childhood obesity by 20 per cent in five years. Although many of these strategies target adults or communities, they can have a spillover effect on children and families.

> Income inequality threatens health. Income drives many food and physical activity decisions. Families with limited incomes may not be able to afford to buy certain foods or to have their children participate in some physical activities.

Access to timely support and treatment services

This strategy focuses primarily on preventing childhood overweight and obesity, but it is critical that no child be left behind, blamed or stigmatized because of weight problems. Children who are seriously overweight or obese need timely access to effective treatment and support services.

Ontario currently has a small network of pediatric weight management programs. Most offer lifestyle coaching, a structured exercise plan and nutritional counselling. The province also has two specialized bariatric treatment centres: one at the Children's Hospital of Eastern Ontario (CHEO) that provides intensive, non-surgical interventions for kids with a BMI in the 99th percentile, and one at the Hospital for Sick Children in Toronto that provides comprehensive medical management of obesity and co-morbidities and both surgical and non-surgical bariatric treatments. The Hospital for Sick Children is the only hospital in Ontario that performs bariatric surgery for youth. Children must meet strict criteria to be eligible for these treatment services. The province's two specialized bariatric centres see a few hundred children a year;[157] there may be more children who could benefit from these services.

[157] Ministry of Health and Long-Term Care. (2012).

Recommendations

Ontario should take concrete, practical steps to build healthy communities.

3.1 Develop a comprehensive healthy kids social marketing program that focuses on healthy eating, active living – including active transportation – mental health and adequate sleep.

The program should target children, youth and parents, reinforcing the importance of healthy eating, active living, mental health and adequate sleep. The program should make particular effort to reach boys, and to engage Aboriginal peoples in developing a culturally appropriate social marketing program for Aboriginal children, youth and families. It should promote active transportation, which is any form of human-powered transportation, such as walking, cycling, using a wheelchair, inline skating or skateboarding.[158] It should use marketing, education and other techniques – including technology, online games and apps – to shape attitudes towards food, activity and other aspects of child health. The intent is to change social norms, build resilience and "nudge" people to make small, sustainable changes that are good for them and for society.

Support youth-led programs

The social marketing program for youth should be youth-led, and capitalize on innovative technologies (apps) that kids can use to monitor their health, level of physical activity and nutritional intake, and to help them make healthier choices. It should also engage and target boys who are at higher risk of being overweight or obese than girls.

3.2 Join EPODE International and adopt a co-ordinated, community-driven approach to developing healthy communities for kids.

Begin by launching EPODE-like programs in at least 10 communities across the province (i.e., to ensure critical mass). Select a mix of large, small, urban, rural and culturally diverse communities to learn how to adapt the EPODE approach for Ontario. The program should incorporate critical success factors identified by EPODE, which include: the community development approach, enabling legislation, strong links to the municipality and people who can influence the built environment, and a focus on families and neighbourhoods most at risk.

As part of a co-ordinated community-driven approach, the government should audit all existing provincially funded healthy eating and physical activity programs for their impact and return on investment. There are some great things happening, and the panel wants to give those initiatives "wings."

The government should leverage effective activities, reallocating existing resources and investing new resources where they will have the greatest impact.

[158] Public Health Agency of Canada definition, accessed January 2012 from: http://www.phac-aspc.gc.ca/hp-ps/hl-mvs/pa-ap/at-ta-eng.php.

3.3 Make schools hubs for child health and community engagement.

Create school communities where nutrition, physical education and health are more than part of the curriculum: they are an integral part of every school day. Schools should collaboratively work with public health and other community partners to enhance health. All schools should be required to:

- Implement the Foundations for a Healthy School framework and train teachers on integrating the foundations into their school
- Establish Student Wellness Committees, and actively engage children and youth in developing relevant physical and mental wellness programs and activities to build resilience and promote healthy eating, active living, coping skills (i.e., stress reduction) and adequate sleep
- Implement and enforce the health and physical education curriculum, as well as minimum physical activity requirements, including:
  - increasing the minimum required Daily Physical Activity in elementary school from 20 to 30 minutes per day
  - giving teachers the tools they need to implement the DPA
  - making physical education compulsory in every year of high school
- Incorporate play-based learning to meet DPA requirements and give kids more opportunities to be active each day
- Develop locally driven strategies to ensure that children with special needs and children who live in rural or remote areas have equitable opportunities to be physically active
- Encourage active school transportation initiatives
- Improve community use of schools and increase access to affordable opportunities for physical activity.

3.4 Create healthy environments for preschool children.

To ensure healthy habits start as young as possible, establish and enforce minimum physical activity requirements in all Early Years Centres, Best Start Hubs and child care settings. Ontario should also actively support and expedite local efforts to create healthy kid "hubs" where families can access co-ordinated prenatal, parenting, literacy and nutrition education, physical activities and health care services.

3.5 Develop the knowledge and skills of key professions to support parents in raising healthy kids.

Successful implementation of this strategy requires skilled local leaders. The panel has identified four groups of professionals who should champion child health in their communities:

- **Workers providing services for children and families in First Nations communities.**
  Ontario should work with First Nations leadership to enhance training for people working in First Nations communities, capitalizing on the initiatives and resources already developed through programs such as Best Start, Aboriginal Head Start, the evaluation of the Community Aboriginal Recreation Activator program and the Aboriginal Health Human Resources for Community-based Worker Training.

- **Teachers and early childhood educators.**
  Training programs should enhance teachers' and early childhood educators' capacity to promote health – including healthy eating, active living and enough sleep. To support training, Ontario should ensure school boards, teachers, early childhood educators and other professionals who work with children have access to updated curriculum and training materials, including enhanced pre-service training. The province should also provide a program to train generalist educators in rural, remote and First Nations communities to deliver effective daily physical activity programs. School boards should fully implement the Foundations for a Healthy School and enhance in-service training.

- **Nurses in primary care, public health and community health, as well as other professionals on their teams.** The Registered Nurses' Association of Ontario (RNAO) has already developed best practice guidelines on breastfeeding and primary prevention of childhood obesity. Ontario should actively promote their use in relevant settings and encourage the RNAO to include recent evidence on the role of sleep deprivation in unhealthy weights.
- **Physicians who specialize in family medicine, public health and preventive medicine, obstetrics and pediatrics.** Pre-service and in-service education for these physicians should include information on: the risk factors for weight gain (including sleep deprivation), effective interventions – including the importance of co-ordination and advocacy with schools and mental health professionals; the links between mental health problems and weight; and the nutrition and physical activity needs of children with physical disabilities.

3.6 Speed implementation of the Poverty Reduction Strategy.

Some of our recommended strategies – such as expanding community food distribution programs and a universal school nutrition program – will help reduce social disparities, but they will not eliminate them. As long as these disparities exist, a significant proportion of Ontario families will struggle to raise healthy kids. Ontario should continue to implement its Poverty Reduction Strategy, focusing on ensuring that families have enough money to afford the nutritious food basket and are not choosing between rent and food.

3.7 Continue to implement the Mental Health and Addictions Strategy.

Because of the strong links between mental health problems and unhealthy weights, the Healthy Kids Strategy should work closely with the province's Mental Health and Addictions Strategy, focusing particularly on helping children develop the confidence, self-esteem, resilience and coping skills that will improve their mental health and empower them to make healthy choices throughout their lives. Youth should be actively involved in planning and implementing these strategies.

3.8 Ensure families have timely access to specialized obesity programs when needed.

Ontario kids who are overweight or obese must have access to support and treatment programs to help them get their weight back into balance. Until we are able to change the trajectory on childhood overweight and obesity, we must ensure that all children and youth in need of community-based weight management/support programs, non-surgical bariatric treatment or bariatric surgery have timely access to services – and that primary care providers are aware of these programs and can make appropriate referrals.

IV. From Strategy to Action

Ontario has set an ambitious target for child health: to reduce childhood obesity by 20 per cent in five years.

No one policy, program or action will be enough on its own to reach that target. We know from our experience with tobacco control: there is no silver bullet. Ontario needs a timely, comprehensive, evidence-based strategy: a combination of actions implemented in full to create the critical mass needed for social change.

The panel has set out a practical three-step strategy – the "what" to do. It is now up to government to create a detailed implementation plan – the "how" to do it – and to provide the leadership to make it happen.

The panel offers the following "how to" advice.

The problem is urgent, and it will not be solved overnight. There is no time to wait, no time for debate and delay, and no place for stop-gap measures. It is important to **start now and sign on for the long term:** Ontario needs at least a 10-year commitment to reduce childhood overweight and obesity and improve child health.

A. Make Child Health Everyone's Priority

A.1 Establish a cross-ministry cabinet committee, chaired by the Premier.

Bring together all ministries whose programs have an impact on child health and well-being.

A.2 Engage the right partners and players outside government. Develop shared goals. Identify champions.

Engagement is more than consultation.

We are all responsible for our children's health: kids themselves, parents, child care providers, schools, health care providers, community organizations, researchers, the food industry, store owners and retailers, the media, municipal governments, the provincial government and the federal government. It is time for everyone to step up. Identify leaders and champions provincially, locally and in each sector.

A.3 Empower parents, caregivers and youth.

Empowered with knowledge, skills and confidence, youth can make healthy choices for themselves and influence their peers.

Involve parents, caregivers and youth in meaningful ways in planning and implementing activities. Parents and caregivers have a great sense of responsibility and they want to do what is best for their children. They are ready to do their part – they just need support from the rest of society. Youth are also ready to be part of the solution. They want to be involved in creating age-appropriate health information and communicating with and supporting one another. Just by asking, you are already creating change.

A.4 Leverage and build on what we already have.

Do not start from scratch. Use existing structures and delivery systems. Build on effective initiatives in Ontario, Canada and around the world. Identify what is working, adapt those activities for different communities and scale them up when it makes sense.

B. Invest in Child Health

Given the current economic climate, there may not be a lot of new resources. However, investing now in preventing and managing childhood overweight and obesity will avoid higher costs – for children, families and the health care system – in the future.

Obesity is already costing Ontario $4.5 billion a year or about $313 per person each year. We have to get in front of this problem. The system will have to spend in order to save. How much should Ontario invest? When it comes to funding, it is time to be creative and efficient.

B.1 Maintain current levels of funding allocated to prevent or reduce unhealthy weights.

The province already funds a number of organizations and programs to promote healthy weights and address childhood overweight and obesity. Money may be tight but asking publicly funded institutions and systems to deliver programs and interventions without providing adequate resources sustained over time is a recipe for failure.

B.2 Leverage and repurpose government funding.

Look first at opportunities to leverage or repurpose existing investments in healthy eating and physical activity – reallocating funding to effective activities that align with this three-step strategy. Focus on upstream activities that will improve child health and – in time – reduce the need for acute care services later.

B.3 Commit at least $80 million per year – $5.87 per person per year – in new funding to reduce childhood overweight and obesity.

Other provinces are investing in their obesity strategies. For example, Nova Scotia, Quebec and Alberta are investing, on average, $5.87 per capita per year to prevent and reduce obesity, and we recommend that Ontario commit at the same level. Given the size of its population, Ontario should invest at least $80 million each year in new funding that targets childhood overweight and obesity. That represents only .17 per cent of the province's health budget and 1.7 per cent of what Ontario is currently spending on the consequences of obesity.

B.4 Establish a public-private-philanthropic trust fund to invest in innovative new programs and services.

Other jurisdictions are ahead of Ontario in their efforts to develop public-private-philanthropic trusts, to leverage philanthropic funding and to capitalize on social innovation investments. Ontario should work with the private sector to develop a fund that invests in new and innovative programs to reduce unhealthy weights. To kick-start these public-private-philanthropic trusts, Ontario should invest itself and attract other partners willing to invest in the health and future of Ontario's children.

C. Use Evidence, Monitor Progress, Ensure Accountability

We do not have all the answers about what will work to reduce childhood overweight and obesity – therefore, activities and interventions will have to adapt and evolve over time. The Healthy Kids Strategy must be a learning strategy – one that creates and uses evidence to drive action and decision, and one that continually measures the impact of different interventions and progress in improving child health.

The following figure illustrates the panel's proposed approach to linking evidence and action. It includes many of the typical components related to evidence, including surveillance, monitoring, evaluation and research. It also shows how these components influence decisions about priorities and actions, as well as reporting on progress.

The arrows represent the meaningful engagement of relevant stakeholders – including research and science, policy makers and communities of practice, as well as parents, children and youth – and the effective communication and exchange of information.

Ontario must be able to assess and communicate progress in meeting its aspirational target, as well as measure other meaningful markers along the way – using both numbers and narratives. The province must also test how interventions work for different populations and settings, and use that information to adapt and scale up interventions. To effectively implement this continuous learning cycle, the responsibilities and expectations for each component and the relationships between them must be clearly defined.

Mapping the Generation and Use of Evidence

* Impact Stories

C.1 Develop a surveillance system to monitor childhood weights, risk factors and protective factors over time.

Ontario needs a "learning" surveillance system that is able to apply what it learns. The system should build on existing registries, such as ICES and the Better Outcomes Registry and Network (BORN). It should have the capacity to identify opportunities to use surveillance to develop and evaluate innovative interventions, and to ensure consistency across the province over time.

Communities need evidence to plan activities and information to measure their impact – including both intended and unintended consequences. Ontario needs provincial as well as local data on:

- children's heights and weights – including the capacity to measure height and weight at the local/health unit level

NutriSTEP, a tool developed in Ontario, provides a fast, valid way to assess the eating habits of toddlers (18 to 35 months) and preschoolers (three to five years). Results can help identify individual kids at risk. They can also be used to assess the ongoing nutritional risk of groups of kids over time (surveillance), and to identify regions or populations that may need more support accessing healthy foods. The tool has also been tested across many cultural groups and is available in eight languages.

- children at risk of being overweight or obese – using valid screening tools such as NutriSTEP
- children's health care needs and service utilization (from electronic medical records in selected primary care practices)
- cross-sectional and longitudinal school and community studies including policy environments.

Local data is especially important to inspire and inform community action.

C.2 Support research on the causes of childhood overweight and obesity and effective interventions.

Ontario must develop the capacity to conduct a range of research activities, including randomized trials and alternatives, to understand the causes of childhood overweight and obesity and to test interventions during pregnancy, infancy, childhood and adolescence. We must also use findings to continually adapt and adjust the strategy.

C.3 Establish a mechanism to monitor the implementation and impact of the three-part strategy.

Ontario should identify an organization, arm's-length from government, responsible for monitoring the three-step Healthy Kids Strategy.

> Ontario must ensure that efforts to reduce obesity do not inadvertently stigmatize children who struggle with their weight or have adverse consequences.

To ensure both strong evidence and effective implementation, the implementation plan should establish the benchmarks and indicators of child health that will be used to measure progress. It must work collaboratively with federal/provincial/territorial efforts to identify common indicators, such as weight, rates of breastfeeding, consumption of certain types of food, physical activity, screen time, and policies in schools and other settings.

The monitoring plan should identify at least one indicator for each partner: something that everyone has to measure and report on.

Whenever possible, make accountability for monitoring and reporting on these indicators part of funding agreements. Use that information to refine the plan.

C.4 Report annually to the public on progress in meeting Ontario's target.

Report on the indicators established for the plan. In addition, systematically collect and share stories of real people in real settings that are having an impact. Include information on the economic and social impact of the strategy as evidence emerges that can support this type of robust analysis.

V. Setting the Bar High

The need is grave and compelling. If nothing changes, one in three children in Ontario will be overweight or obese. More children will develop weight issues that will lead to serious health problems in their 30s and 40s, and affect their quality of life. The cost of obesity will overwhelm our health care system.

There is no time to delay. We have been slow to respond. We already lag other jurisdictions by as much as 10 years. Ontario must act now. We must bring children's weights back into balance.

The good news is: this is a problem we can solve. Change is possible. Our three-part Healthy Kids Strategy is clear, practical and doable:

1. **Start all kids on the path to health**
2. **Change the food environment**
3. **Create healthy communities**

Some of our recommendations can happen quickly; some will take longer. Some will need legislation; some will require new partnerships, roles and responsibilities. Most can be accomplished within existing structures and systems. Many can be done within existing resources; some will require new money.

Milestones: The First 12 Months

To meet its target of reducing childhood obesity by 20 per cent in five years, Ontario must set the bar high. The implementation plan should identify a series of milestones for the first year, and then for each subsequent year.

In year one, Ontario should meet, at least, the following six milestones:

- Establish the cross-ministry committee and develop a detailed implementation plan with shared goals that has the support of all ministries and other stakeholders
- Introduce the preconception health visit for women and their partners who are planning a pregnancy
- Introduce legislation to ban advertising to children under 12 and point-of-sale displays of sugar-sweetened beverages
- Expand some of the existing healthy eating and physical activity programs that have been shown to be effective
- Have at least 10 communities involved in Ontario's version of EPODE
- Establish indicators and the reporting mechanism for the strategy.

To do less will not be enough.

Appendix 1: Healthy Kids Panel Terms of Reference

Background

Childhood obesity is a serious health issue that is strongly linked to increased risks of hypertension, type 2 diabetes, heart disease, gallbladder disease, stroke, and certain types of cancer, including breast and colon cancer. Broad engagement and action from a variety of partners and sectors is required to effectively address this problem. Partnerships that include parents and caregivers, educators and legislators, industry and media are essential to supporting health in the next generation.

In Ontario's Action Plan for Health Care, the government committed to bringing together a panel of content area and strategy experts, health care leaders, non-profit organizations, and industry to inform the development of a strategy that will reduce childhood obesity in Ontario by 20 per cent in five years. This is an aspirational and ambitious goal, and the panel will provide advice on how the province can best meet this goal. The panel's report to the minister is expected by December 21, 2012.

Purpose

To provide the Minister of Health and Long-Term Care with a report outlining:

- Recommendations on how to best meet this goal to reduce Ontario's childhood obesity and improve the health of children.

Audience

The target audience for the report is the government, and through the government, other stakeholders/spheres of influence.

Scope

The scope of the panel's work includes:

- Identification of the specific factors that affect childhood obesity rates and improve the health of children in Ontario; and,
- Identification of comprehensive, innovative, multisectoral* interventions to achieve sustainable childhood obesity reduction and improved child health in Ontario. In its deliberations on interventions, the panel will consider the following:
  - Evidence-informed solutions
  - Public Accountability
  - Cost effectiveness in consideration of global and provincial austerity measures and
  - Viability for implementation.

* Multisector refers to recommendations that address all areas with a role to play in impacting childhood obesity and child health (such as the private sector, government (including across government approach), the local community, the public and the broader public sector).

Timelines & Deliverables

- Term of the panel is from May to December 201 2.
- The panel will provide their final report to the Minister of Health and Long-Term Care by December 21, 2012.

Membership

Co-Chairs

Alex Munter, Children's Hospital of Eastern Ontario
Kelly Murumets, ParticipACTION

Members

Dr. Denis Daneman, The Hospital for Sick Children
Carol Diemer, Windsor Essex Community Health Centre
Cheryl Jackson, Journalist
Michael Lovsin, Retail Council of Canada/Loblaw Companies Limited
Dr. Stephen Lye, Mount Sinai Hospital, University of Toronto
Medhat Mahdy, YMCA Ontario
Carlene Mennen, Southwest Ontario Aboriginal Health Access Centre
Rose Reisman, The Art of Living Well
Barbara Riley (PhD), Propel Centre for Population Health Impact
Heather Sears, York Region District School Board
Neil Seeman, Health Strategy Innovation Cell, University of Toronto
Dr. Penny Sutcliffe, Medical Officer of Health, Sudbury and District Health Unit
Phyllis Tanaka, Food and Consumer Products of Canada
Max Valiquette, Bensimon Byrne
Robert Witchel, Right to Play Canada
Soo Wong, MPP for Scarborough-Agincourt

Chairs' Responsibilities

- Beyond the members' responsibilities as outlined below, the Chairs are responsible for guiding the panel's approach, facilitating productive discussions and consensus building, and acting as the public spokespersons for the panel.

Members' Responsibilities

- Panel members were invited based on the experience they bring to the topic of childhood obesity and not as representatives of their organizations.
- Understand the current landscape across relevant sectors as it relates to initiatives that can contribute to the reduction of childhood obesity in Ontario.
- Share knowledge and expertise that will contribute to the development of recommendations for interventions and approaches to reducing childhood obesity in Ontario.
- Identify gaps, challenges, and opportunities related to childhood obesity reduction initiatives, and strategies to address them.
- The members have access to a diverse group of sectors and communities (including demographic communities such as children, youth, parents and recent immigrants).
- Members are encouraged to engage these networks to gain a better understanding of childhood obesity from different perspectives and to better inform the panel's recommendations.

Support

Secretariat support will be provided by the Ministry of Health and Long-Term Care. The secretariat will act as the liaison between the panel and the ministry.

Secretariat support services will include:

- Arranging meeting logistics (booking resources, catering, etc.), based on government protocols
- Sending out meeting invitations and responding to questions from panel members
- Distributing meeting materials, including agendas and minutes/action items of each meeting
- Responding to ad hoc requests for information
- Compiling and preparing information and materials for meetings
- Co-ordinating travel expense claims

Ongoing meetings will take place between the Co-Chairs and secretariat to assess support and resource requirements.

A professional writer will attend the panel meetings to collate recommendations and draft the report on behalf of the panel.

Engagement Approach

Part of the work of the panel will include engaging with thought leaders and experts with a variety of perspectives. The members have access to a diverse group of sectors and communities (including demographic communities such as children, youth, parents and recent immigrants). Members are encouraged to engage these networks to gain a better understanding of childhood obesity from different perspectives and to better inform the panel's recommendations. The panel will develop an engagement plan.

Proceedings and Attendance

The panel will meet on a monthly basis. Location and details of meetings will be determined by the panel Co-Chairs with logistical support from the secretariat.

Agenda items are set by the Co-Chairs with input from the panel members. As applicable, materials will be emailed to members by the secretariat in advance of each meeting.

Delegates are not permitted.

Payment

There shall be no salary or per diem paid as a result of this appointment to the panel.

The ministry may, in its sole discretion, reimburse panel members for expenses, if applicable, in accordance with any Ontario Government directives and guidelines that are applicable at the time of payment (including, for greater certainty, the Travel, Meal and Hospitality Expenses directive) for all reasonable expenses associated with any meetings panel members are required to attend.

Public Communications

Members must notify the Co-Chairs if they are making media appearances and statements about the panel and its work prior to being made.

Co-Chairs must notify the ministry regarding media appearances and statements about the panel prior to being made.

- Materials provided to the panel will not be distributed externally unless expressly permitted. When communicating externally about the panel's work, any information will focus on the issues being discussed as opposed to the leanings of the panel. Panel deliberations are confidential and no remarks will be attributed to any member of the panel.

Appendix 2:
Healthy Kids Panel Approach to Engagement

Framework

The panel identified that engagement, input and diverse perspectives would help to inform their report and discussions. Engagement was identified to provide insight into the following areas:

- Better understanding of public knowledge and perception – including the views of parents, children and youth.
- Understanding structural barriers and the impact of social determinants of health.
- Successfully developing and implementing solutions to complex problems through change in complex systems.
- Proven and promising interventions.
- Better understanding of market-based solutions and opportunities to advance public-private partnerships and engage industry.
- Better understanding of current momentum with promising solutions.

Key Audiences

- Known experts in the areas listed above
- Children, youth and parents
- Potential champions for the recommendations
- Members of identified high-risk groups
- Key groups that will be critical to successful implementation

Engagement Mechanism

Submissions from the Public:

- The Healthy Kids Panel accepted submissions from members of the public and organizations from May 18 – September 30, 2012.
- The panel received 93 written submissions during this time.

Thought Leader Presentations:

- Thought leaders were approached by the panel to further explore diversity of thought and expertise on the issue.
- 19 thought leaders presented and engaged in a discussion with the panel through the July - November meetings.
- The thought leaders represented a broad range of knowledge, expertise and on-the-ground experience in key areas, including academia, schools, medicine and aboriginal communities.

Thought Leaders		
Name	**Title**	**Date Presented**
Dr. Arjumand Siddiqi	Assistant Professor, University of Toronto, Dalla Lana School of Public Health	July 11, 2012
Dr. Harvey Skinner	Dean of the Faculty of Health, York University	July 11, 2012
Dr. Yoni Freedhoff	Founder and Medical Director of the Bariatric Medical Institute in Ottawa	July 11, 2012
Dr. Steve Kelder	Professor of Spirituality and Healing, University of Texas	August 22, 2012
Dave Kranenburg	Director of Programming, Centre for Social Innovation	August 22, 2012
Dr. Diane Finegood	President & CEO, Michael Smith Foundation for Health Research	August 22, 2012
Dr. Arya Sharma	Scientific Director, Canadian Obesity Network	September 18, 2012
Dr. Andrew Pipe	Chair, Champlain Healthy School-Aged Children Initiative	September 18, 2012
Dennis Edell	Board of Directors, EPODE International Network	September 18, 2012
Debbie Field	Executive Director, Food Share	September 18, 2012
Dr. Kim Barker	Community Medicine Resident, Ministry of Health and Long-Term Care	September 18, 2012
Annie Kidder	Executive Director, People for Education	September 18, 2012
Nancy Steinhauer	Principal, George Webster Elementary School	September 18, 2012
Dr. Adalsteinn Brown	Dalla Lana Chair of Public Health Policy, University of Toronto	September 19, 2012
Dr. Mark Tremblay	Director of Healthy Active Living & Obesity Research, Children's Hospital of Eastern Ontario	September 19, 2012
Dr. Patricia Parkin	Member, Canadian Task Force on Preventive Health Care	October 17, 2012
Bernadette de Gonzaque	First Nations Registered Dietitian	October 17, 2012
Jean-Michel Borys	Co-Founder & Co-Director, EPODE International Network	November 14, 2012
Stoney McCart	Executive Director, The Students Commission of Canada	November 21, 2012

Associations/Organizations Meetings

- The co-chairs and members met individually with various associations and organizations representing the food and hospitality industries and the medical and public health sectors, to name a few.
- Some associations/organizations represented vested partners or delivery agents for various initiatives related to healthy eating and active living.

Associations/Organizations
Association of Ontario Health Centres
Association of Public Health Epidemiologists in Ontario
Canada Restaurant and Food Service Association
Canadian Beverage Association
Canadian Paediatric Society
Cancer Care Ontario
Chiefs of Ontario
Council of Ontario Medical Officers of Health
Dietitians of Canada

Food and Consumer Products of Canada
Health Nexus – Best Start Resource Centre
Heart and Stroke Foundation
Hong Fook Mental Health Association
Ministry of Children and Youth Services (Children and Youth Mental Health Strategy – Implementation)
Ministry of Children and Youth Services (Poverty Reduction Strategy – Implementation)
Ontario Chronic Disease Prevention Alliance
Ontario College of Family Physicians
Ontario Fruit and Vegetable Growers' Association
Ontario Medical Association
Ontario Nurses' Association
Ontario Physical and Health Education Association
Ontario Principals' Council
Ontario Professional Planners Institute
Ontario Public Health Association
Ontario Restaurant Hotel & Motel Association
Ontario Society of Nutrition Professionals in Public Health
Ontario Student Trustees Association
Parks and Recreation Ontario
Registered Nurses' Association of Ontario
Retail Council of Canada

Parent Survey

- The panel conducted a survey of Ontario parents and caregivers from October 12 – November 12, 2012, to gain a better understanding of parents' perceptions of childhood obesity and attitudes towards actions for prevention and reduction.
- The survey was available in both English and French and received over 2,000 responses.

Parent and Youth Focus Groups

- To complement the survey, focus groups in the Greater Toronto Area and Sudbury were also used to provide insights into the lived experience of parents. The focus groups were conducted with parents with children under the age of 12 years. In order to provide the panel with a health equity lens, the focus groups recruited a significant proportion of parents who were economically disadvantaged (defined as household income under $40K).
- The Students Commission of Canada also conducted 10 focus groups on behalf of the panel to gather input from children and youth about their health. Focus groups were held in Meadow Lake, SK; Saskatoon, SK; Timmins, ON; Toronto, ON; Kingston, ON; Perth,ON; Osgoode, ON, and Fredericton, NB, with altogether 90 young people between the ages of six to 17 being consulted.

Appendix 3: Research Consulted by Healthy Kids Panel

The following were the key reports and articles consulted by the panel:

Reports

Active Healthy Kids Canada. (2011). Report Card on Physical Activity for Children and Youth (Ontario Supplement).

Cancer Care Ontario and Public Health Ontario. (2012). Taking Action to Prevent Chronic Disease: Recommendations for a Healthier Ontario.

Charles Pascal. (2009). With our Best Future in Mind: Implementing Early Learning in Ontario.

Commission for the Review of Social Assistance in Ontario. (2012). Brighter Prospects: Transforming Social Assistance in Ontario.

Federal/Provincial/Territorial Ministers of Health. (2011). Curbing Childhood Obesity: A Federal, Provincial and Territorial Framework for Action to Promote Healthy Weights.

Health Canada. (2000). Diabetes among Aboriginal Peoples in Canada: The Evidence.

Heart and Stroke Foundation. (2011). Childhood Obesity Policy Recommendations.

Institute of Medicine. (2012). Acceleration Progress in Obesity Prevention: Solving the Weight of the Nation.

Ipsos Reid for Public Health Agency of Canada. (2011). Canadians' Perceptions of, and Support for, Potential Measures to Prevent and Reduce Childhood Obesity.

National Centre for Chronic Disease Prevention and Health Promotion. (2011). Obesity: Halting the Epidemic by Making Health Easier.

Nova Scotia Government. (2012). Thrive! A Plan for a Healthier Nova Scotia: A policy and environmental approach to healthy eating and physical activity.

Ontario Cabinet Committee on Poverty Reduction. (2008). Breaking the Cycle: Ontario's Poverty Reduction Strategy.

Ontario's Chief Medical Officer of Health. (2004). Healthy Weights, Healthy Lives.

Ontario Chronic Disease Prevention Alliance. (2010). Evidence-Informed Messages: Active Living and Physical Activity.

Ontario Chronic Disease Prevention Alliance. (2009). Obesity: An Overview of Current Landscape and Prevention – Related Activities in Ontario.

Ontario's Comprehensive Mental Health and Addictions Strategy. (2011). Open Minds, Healthy Minds.

Ontario Medical Association. (2008). OMA Background Paper and Policy Recommendations: Treatment of Childhood Overweight and Obesity.

Ontario Professional Planners Institute. (2011). Healthy Communities and Planning for Food Systems in Ontario: A Call to Action.

Propel Centre for Population Health Impact. (2012). Heart Healthy Children and Youth: Overview of Case Profiles.

Public Health Ontario. (2012). Evidence Primer for the Healthy Kids Panel.

Public Health Ontario and the Institute of Clinical Evaluative Sciences. (2012). Seven More Years: The Impact of Smoking, Alcohol, Diet, Physical Activity and Stress on Health and Life Expectancy in Ontario.

Quebec's Governmental Action Plan 2006-2012. Investing for the Future: Government action plan to promote healthy lifestyles and prevent weight-related problems.

Registered Nurses' Association of Ontario. (2005). Primary Prevention of Childhood Obesity.

Standing Committee on Health, House of Commons Canada. (2007). Healthy Weights for Healthy Kids.

The Obesity Reduction Strategy Task Force of BC. (2010). Recommendations for an Obesity Reduction Strategy for British Columbians.

Wellesley Institute. (2012). Reducing Childhood Obesity in Ontario through a Health Equity Lens.

White House Task Force on Childhood Obesity – Report to the President. (2010). Solving the Problem of Childhood Obesity within a Generation.

World Health Organization. (2009). Interventions on Diet and Physical Activity: What Works.

World Health Organization. (2009). Population-Based Prevention Strategies for Childhood Obesity.

World Health Organization. (2012). Prioritizing areas for action in the field of population-based prevention of childhood obesity: a set of tools for member states.

Articles

Barry, C. L., Gollust, S. E., & Niederdeppe, J. (2012). Are Americans Ready to Solve the Weight of the Nation? *The New England Journal of Medicine, 367(5),* 389-391.

Borys, J.-M., Le Bodo, Y., Jebb, S. A., Seidell, J. C., Summerbell, C., Richard, D., et al. (2011). EPODE approach for childhood obesity prevention: methods, progress and international development. *Obesity Reviews, 13(4)*, 299-315.

Brownell, K. D., & Warner, K. E. (2009). The Perils of Ignoring History: Big Tobacco Played Dirty and Millions Died. How Similar Is Big Food? *The Milbank Quarterly, 87(1),* 259-294.

Chaput, J.-P., Visby, T., Nyby, S., Klingenberg, L., Gregersen, N. T., Tremblay, A., et al. (2011). Video game playing increases food intake in adolescents: a randomized crossover study. *The American Journal of Clinical Nutrition, 93,* 1196-203.

de Ruyter, J. C., Olthof, M. R., Seidell, J. C., & Katan, M. B. (2012). A Trial of Sugar-free or Sugar-Sweetened Beverages and Body Weight in Children. *The New England Journal of Medicine, 367,* 1397-1406.

Gonzalez, A., Boyle, M. H., Georgiades, K., Duncan, L., Atkinson, L. R., & MacMillan, H. L. (2012). Childhood and family influences on body mass index in early adulthood: findings from the Ontario Child Health Study. *BMC Public Health, 12,* 755.

Janicke, D. M., Sallinen, B. J., Perri, M. G., Lutes, L. D., Huerta, M., Silverstein, J. H., et al. (2008). Comparison of Parent-Only vs. Family-Based Interventions for Overweight Children in Underserved Rural Settings. *Archives of Pediatrics & Adolescent Medicine, 162(12),* 1119-1125.

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Katzmarzyk, P. T., Baur, L. A., Blair, S. N., Lambert, E. V., Oppert, J.-M., & Riddoch, C. (2008). International Conference on Physical Activity and Obesity in Children: Summary Statement and Recommendations. *Applied Physiology, Nutrition, and Metabolism, 33,* 371-388.

Keith, S. W., Redden, D. T., Katzmarzyk, P. T., Boggiano, M. M., Hanlon, E. C., Benca, R. M., et al. (2006). Putative contributors to the secular increase in obesity: exploring the roads less traveled. *International Journal of Obesity, 30,* 1585-1594.

Manios, Y., Kourlaba, G., Kondaki, K., Grammatikaki, E., Anastasiadou, A., & Roma-Giannikou, E. (2009). Obesity and Television Watching in Preschoolers in Greece: The GENESIS Study. *Obesity, 17(11),* 2047-2053.

Metcalf, B. S., Voss, L. D., Hosking, J., Jeffery, A. N., & Wilkin, T. J. (2008). Physical activity at the government-recommended level and obesity-related health outcomes: a longitudinal study. *Archives of Disease in Childhood, 93,* 772-777.

Mozaffarian, D., Afshin, A., Benowitz, N. L., Bittner, V., Daniels, S. R., Franch, H. A., et al. (2012). Population Approaches to Improve Diet, Physical Activity, and Smoking Habits: A Scientific Statement from the American Heart Association. *Circulation, 126,* 1514-1563.

Palmater, P. (2011). Stretched Beyond Human Limits: Death By Poverty in First Nations. *Canadian Review of Social Policy, 65,* 112-127.

Raichlen, D. A., Wood, B. M., Mabulla, A. Z., Racette, S. B., & Marlowe, F. W. (2012). Hunter-Gatherer Energetics and Human Obesity. *Plos One, 7(7),* 1-8.

Qi, Q., Chu, A. Y., Kang, J. H., Jensen, M. K., Curhan, G. C., Pasquale, L. R., et al. (2012). Sugar-Sweetened Beverages and Genetic Risk of Obesity. *The New England Journal of Medicine, 367,* 1387-1396.

Siddiqi, A., & Hertzman, C. (2007). Towards an epidemiological understanding of the effects of long-term institutional changes on population health: A case study of Canada versus the USA. *Social Science & Medicine, 64,* 589-603.

Slater, J., Green, C. G., Sevenhuysen, G., Edginton, B., O'Neil, J., & Heasman, M. (2009). The growing Canadian energy gap: more the can than the couch? *Public Health Nutrition, 12(11),* 2216-2224.

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