



STAFF REPORT ACTION REQUIRED

Primary Prevention of Childhood Obesity in Toronto

Date:	June 17, 2016
To:	Board of Health
From:	Medical Officer of Health
Wards:	All
Reference Number:	

SUMMARY

Obesity in children is an important public health issue. Children with obesity are more likely to grow up to be adults with obesity, which can contribute to the development of chronic conditions/diseases, such as diabetes and cardiovascular disease. Many risk and protective factors contributing to childhood obesity begin in the preconception/prenatal period and continue throughout the lifespan. People's behaviours are affected by individual factors, as well as interactions within the larger social and environmental context. Therefore, approaches to address and prevent childhood obesity include actions involving food environments, physical activity and broader socioeconomic environments. Other potential actions focus on behavioural approaches in settings such as schools that aim to change individual nutrition and physical activity behaviours through social marketing, education and other activities to motivate behaviour change.

The Ontario Public Health Standards Child Health Requirement specifies that public health units are required to conduct local surveillance and monitoring of trends over time on healthy weights, healthy eating and physical activity. Unfortunately, to date, no data source exists at the local level to meet this requirement. The Ontario Healthy Kids Strategy highlighted and recommended addressing this major gap by accessing data sources from non-public health partners such as primary care Electronic Medical Records and linking multiple data sources to improve the utility of the data (e.g., height and weight data linked with NutriSTEP® nutrition screening tool). Currently, Toronto Public Health is involved in a pilot project to develop this database system.

This report provides a summary of the risk and protective factors for childhood obesity and outlines the initiatives Toronto Public Health (TPH) is undertaking to address this issue in the preconception and prenatal period, the early years and elementary school-age years. This report also describes TPH's involvement in the development of healthy public policies related to the built environment, commercial marketing to children, menu

labelling and partnership initiatives (e.g., Healthy Kids Community Challenge) which can all contribute to preventing childhood obesity. This report also highlights the need for better local surveillance and monitoring of healthy weights, healthy eating and physical activity in order to better plan, implement and evaluate childhood obesity prevention initiatives.

RECOMMENDATIONS

The Medical Officer of Health recommends that:

1. The Board of Health request the Ministry of Health and Long-Term Care develop a provincial surveillance system for ongoing monitoring of children's nutrition, physical activity and healthy weights, including access to primary care electronic medical records related to children's height and weight; and
2. The Board of Health endorse, in principle, the recommendations in the report of the Standing Senate Committee on Social Affairs and Technology, *Obesity in Canada: A Whole-of-Society Approach for a Healthier Canada, 2016*.

DECISION HISTORY

On March 18, 2013, the Toronto Board of Health received a staff report that provided an overview and recommended the endorsement, in principle, of *No Time to Wait: The Healthy Kids Strategy*. The report highlighted some initiatives being undertaken in Toronto, as well as several of the Board of Health's policy and program directions that support the recommendations of the Healthy Kids Strategy. In addition, this report recommended that the Minister of Health and Long-Term Care consider some amendments to strengthen specific recommendations proposed in the Healthy Kids Strategy. <http://www.toronto.ca/legdocs/mmis/2013/hl/bgrd/backgroundfile-56663.pdf>

Financial Impact

There are no financial implications resulting from this report.

ISSUE BACKGROUND

Obesity in children is an important public health issue. Children with obesity are more likely to grow up to be adults with obesity, which contributes to the development of chronic conditions/diseases, such as diabetes and cardiovascular disease. Obesity not only impacts healthy growth and development, but also mental health. There are also significant health care costs. According to a recent Senate report, obesity costs Canada between \$4.6 billion and \$7.1 billion annually in health care and lost productivity.¹

Many factors contribute to childhood obesity, creating a complex web of risk and protective factors that begin in the preconception/prenatal period and continue through the life course. Therefore, approaches to address the prevention of childhood obesity include both "upstream" and "midstream" interventions. Upstream actions target the food environments, physical activity environments and the broader socioeconomic environments thus indirectly influencing population behaviours. Midstream actions focus

on behavioural approaches in settings such as schools that aim to change individual nutrition and physical activity behaviours through social marketing, education and other activities to motivate behaviour change. Regardless of approach, it is essential that interventions address overall health as opposed to focussing on weight specifically, as this may lead to weight-based stigmatization and will not address many of the factors that contribute to unhealthy weights.

This report outlines Toronto Public Health's proactive measures aimed at addressing the prevention of childhood obesity.

Risk and Protective Factors for Childhood Overweight and Obesity

Although heredity is a contributing factor to overweight and obesity in children, there are many important modifiable risk and protective factors that also play a role.

Physical Activity

Physical activity in children is linked with many positive health outcomes and there is consistent evidence that it has an impact on preventing overweight and obesity. Regular physical activity is associated with cardiovascular and metabolic health (e.g., lower blood pressure, insulin levels and waist circumference). The benefits are not limited to physical health but also include improved academic achievement as well as positive mental health.²

The Canadian Physical Activity Guidelines for Children and Youth, recommend that 5- to 17-year-olds engage in at least 60 minutes of daily moderate to vigorous intensity physical activity (MVPA). Despite these recommendations, data from 2012-13 reveal that only 9% of 5- to 17-year-olds in Canada (14% of 5- to 11- year-olds and 5% of 12- to 17-year-olds) meet this target.³ This percentage has remained stable since the 2007-09 Canadian Health Measures Survey (CHMS) when 7% of 5- to 17-year-olds met the daily recommendation. The only Toronto based data for physical activity in youth was collected in 2014 by TPH through the Student Health Survey. This survey found that only 7% of students in grades 7 to 12 were meeting Canada's physical activity guidelines for youth.⁴

Sedentary Behaviour

Sedentary behaviours such as television viewing, seated video game playing and prolonged sitting are associated with increased risks for overweight status and obesity, as well as cardiovascular disease, in children and youth.⁵

Fifteen percent of Canadian children aged 3-4 years meet the guideline of less than one hour of screen time per day; 24% of those aged 5-11 years and 24% of those aged 12-17 years meet the guideline of two hours or less of screen time per day.³ Children in Canada aged 3-4 years spend 7.5 hours a day being sedentary, those aged 5-11 years spend 7.6 hours and those aged 12-17 years spend 9.3 hours being sedentary.³ According to the 2014 TPH Student Health Survey, over 70% of grade 7 to 12 students in Toronto had at

least one day in the past week with more than two hours spent sitting or lying down, staring at a computer, phone, or TV screen.⁴

Consumption of Sugar-Sweetened Beverages

The consumption of sugar-sweetened beverages has been consistently linked with excess weight gain in children and there is some evidence that milk, and dairy consumption in general, is protective although findings are inconsistent. Fruit juice does not appear to increase the risk of overweight/obesity in children; however, there is evidence that diet soda consumption may cause weight gain which could also be an indicator of other unhealthy behaviours.⁶

Statistics show that 44% of the average daily sugar intake of children and adolescents comes from beverages. However, for children 9 years and older, regular soft drinks represent the main source of average daily sugar intake.⁷ According to the TPH Student Health Survey, 20% of grade 7-12 students reported drinking non-diet pop or sweetened beverages more than three times per week and 9% reported drinking pop everyday.⁴

Breakfast Consumption

Regular breakfast consumption has a positive impact on health and learning for children and youth and, in particular, it has been found to be an important factor in the prevention of overweight status and obesity.⁸

In Canada, more than 24% of children in Grade 4 do not eat breakfast every day; by grade 8, this number escalates to 47% of girls and 33% of boys who skip breakfast.⁹

Vegetable and Fruit Consumption

While it is difficult to show direct protection of vegetable and fruit consumption against child and youth overweight and obesity, there is evidence that these are related.⁶ For example, a study of Canadian children and youth found that those who ate vegetables and fruit at least five times a day were significantly less likely to have overweight status or obesity.¹⁰ This finding may be explained by the fact that vegetable and fruit consumption has been shown to be a good indicator of overall diet quality and can also contribute to increased feelings of fullness, which can help in reducing overall energy intake.

Despite the benefits of vegetable and fruit consumption, 70% of children aged 4 to 8 years do not meet the minimum recommended five servings per day, and when children reach ages 9 to 13 years, 62% of girls and 68% of boys do not meet recommendations.¹¹ Within Toronto, the TPH Student Survey of grade 7-12 students found that 87% of students do not meet the minimum guidelines for daily vegetable and fruit intake.⁴

Inadequate Sleep

Sleep plays a critical role in health and well-being. Sleep allows time for the body to rest and prepare for the next day. Children and youth need more sleep than adults because their bodies and minds are growing. Although sleep is an inherently sedentary behaviour, longer sleep duration is consistently shown to be protective against childhood overweight status and obesity.⁶

The Canadian Pediatric Society recommends that children 5-10 years of age get 10-12 hours of sleep while youth/teens should get 9-10 hours of sleep daily. According to the Canadian Sleep Society, 40 per cent of young children don't get enough sleep and 35 per cent of 12- to 17-year-olds get less than 8 hours of sleep per night.¹²

Maternal Health and Weight in the Preconception and Prenatal Periods

There is growing evidence that a woman's health and weight prior to pregnancy (known as the preconception period) and her weight gain during pregnancy (known as gestational weight gain) have a direct influence on her child's health and weight over the short- and long-term. The issue of maternal weight in the preconception period has received increasing attention in recent years due to the growing proportion of women who enter pregnancy with overweight or obese status. In Ontario, it is estimated that more than 40% of women of childbearing age (18 to 49 years) have overweight or obese status.¹³ According to the 2006-2007 Canadian Maternity Experiences Survey, approximately one-third of Canadian women aged 15 and older report starting their pregnancy with overweight/obesity.¹³ Having overweight or obese status before conception has been linked to health risks for infants. For example, children born to women who enter pregnancy with overweight/obesity are significantly more likely to be larger at birth (birth weight over the 90th percentile) and identified as having obesity through childhood and adulthood.¹³

Increasing evidence suggests that the prenatal period also plays an important role in determining overweight and obesity later in life. Several important prenatal determinants of childhood overweight and obesity have been identified, including excess gestational weight gain, maternal smoking in pregnancy and gestational diabetes.¹⁴ Increasingly during pregnancy, women are gaining more weight than recommended by gestational weight gain guidelines.¹³ Gestational weight gain recommendations are related to a woman's pre-pregnancy Body Mass Index (BMI). Average weight gain in pregnancy has increased since the 1970s from 10 to 15 kg.¹³ This is concerning as research has shown that excess weight gain during pregnancy influences obesity in children over the life course.¹⁴ Furthermore, it has also been linked with endocrine-disrupting chemicals in children, which may also play a role in future weight gain. Maternal smoking in pregnancy has been consistently associated with childhood weight, partially due to its association with low birthweight. While gestational diabetes has been less consistently linked with obesity in children and youth, in a large cohort study, it was estimated to increase the odds of youth being overweight by 40%.⁶

Breastfeeding

Breastfeeding has a variety of well documented health benefits. In particular, breastfeeding during infancy is associated with lower rates of child and youth overweight/obesity. This protective effect declines over time as exclusive breastfeeding declines.¹⁵ "Exclusive breastfeeding refers to feeding breast milk only, including expressed breast milk or donor human milk, and undiluted drops or syrups consisting of vitamins, mineral supplements or medicine".¹⁶ A number of leading health organizations, including Toronto Public Health, all support exclusive breastfeeding to six months of age and continued breastfeeding, with complementary foods, up to 2 years and beyond.

While just over 87.1% of all mothers in Ontario reported trying to breastfeed their last child in 2011, only 27.3% reported breastfeeding exclusively for the recommended duration of at least six months. While the proportion initiating breastfeeding has remained the same, the percentage of those who exclusively breastfeed at least six months has increased significantly between 2003 and 2011.¹⁷ A breastfeeding study released by TPH in 2010 found that, despite high levels of breastfeeding initiation of first time mothers (95.7%), only 62.6 % of mothers who initiated breastfeeding reported breastfeeding exclusively at hospital discharge and only 17.5 % of mothers were exclusively breastfeeding their babies to six months postpartum.¹⁶

Physical and Social Environments

There is also some evidence that a poorly designed built environment, low socio-economic status and commercial advertising can increase the risk of overweight and obesity in children.^{6, 18}

COMMENTS

Overweight and Obesity of Children/Youth in Toronto

Toronto Rates

The combined overweight/obesity rate for children/youth, 2-17 years in Toronto was 28.3% in 2004 according to the Canadian Community Health Survey (CCHS).¹¹ The CCHS was conducted again in 2015 to evaluate changes in food consumption, nutrition and health (including physical activity and measured heights and weights). Data collection occurred Jan-Dec 2015 with Canadians over the age of one year. Results will not be available before Fall 2016 and it is not clear whether the data will be available at the local level.

The Toronto Public Health Student Survey completed in 2014, for students in grades 7-12 (youth ~12-17 yrs) found that 9% of students were classified with obesity and 20% in this age group had overweight status. Male students (11%) were more likely to have obesity than female students (6%); there were no differences in overweight status by gender. Students in the "low" socio-economic access group (37%) were more likely to have overweight/obese status compared to students (26%) in the "high" socio-economic access group. There were no significant differences across smaller geographic areas of Toronto in the prevalence of students with overweight/obese status.⁴

Surveillance of Overweight and Obesity in Children and Youth in Ontario

The Ontario Public Health Standards (OPHS) Child Health Requirement specifies that local public health units are required to conduct surveillance and monitoring of trends over time on the topic areas of healthy weights, healthy eating and physical activity.¹⁹ To date, no data source exists to meet this OPHS requirement. The Ontario Healthy Kids Strategy highlighted and recommended addressing this gap by accessing data sources from health system partners such as primary care Electronic Medical Records (EMRs), and linking multiple data sources to improve the utility of the data (e.g., height and

weight data linked with NutriSTEP® which is a valid and reliable nutrition screening tool to assess the nutrition risk of toddlers and preschool children).²⁰

Access to children's nutrition, physical activity and healthy weights data through primary care EMRs would allow health units to estimate overweight and obesity rates locally for toddlers and preschool children. Furthermore, by linking the NutriSTEP® screening tool with EMR data, health units could also identify risk and protective factors for childhood obesity in the early years, and leverage this information to target prevention programs and services to children and their families, locally. This information would also be valuable for primary care to improve care and management of children with overweight and obesity risks.

Currently, TPH is involved in a pilot project with several health units across the province working to build a comprehensive EMR-based childhood healthy weights surveillance system in Ontario. This system will be capable of producing local estimates that will inform program planning within public health units, and the care and management of children and their families in primary care practices. However, the project is only a pilot and set to end Fall 2017. Therefore, a mechanism to access this data is necessary for effective monitoring, surveillance and assessment of childhood obesity risk factors, as well as developing well-informed public health prenatal programs.

Provincial and Federal Action

Ontario Healthy Kids Panel

In January, 2012, as part of the Action Plan for Health Care, the Government of Ontario set a target of reducing childhood obesity by 20 per cent in five years. The Healthy Kids Panel, a multi-sectoral panel of 18 experts, was created to develop recommendations for the Minister of Health and Long-Term Care. After conducting its deliberations between May and December 2012, the Ontario Healthy Kids Panel submitted its report, *No Time to Wait: The Healthy Kids Strategy*.

http://www.health.gov.on.ca/en/common/ministry/publications/reports/healthy_kids/healthy_kids.pdf

To reach the ambitious obesity reduction target, the Panel recommended a three-part strategy, recognizing that no one measure will solve the problem of childhood overweight/obesity:

1. Start All Kids on the Path to Health
2. Change the Food Environment
3. Create Healthy Communities

The Panel emphasized that health is much more than weight and cautioned that an overemphasis on weight is stigmatizing and does not address many of the factors contributing to unhealthy weights. The Healthy Kids Strategy is a comprehensive approach to promoting healthy eating and physical activity, creating healthy communities and mitigating the broader social and health disparities affecting children.

Standing Senate Committee on Social Affairs and Technology Report

A federal report, *Obesity in Canada: A Whole-of-Society Approach for a Healthier Canada* was recently released in March 2016.

http://www.parl.gc.ca/content/sen/committee/421/SOCI/Reports/2016-02-25_Revised_report_Obesity_in_Canada_e.pdf

This report is the result of over two dozen meetings between February 2014 and June 2015 with a range of Canadian and international stakeholders. The report quantifies and characterizes the complexity of obesity in Canada, while offering a whole-of-society approach to promote healthier weights among Canadians.

The Senate Committee is calling for a National Campaign to Combat Obesity. Their report makes 21 recommendations that include a complete revision of Canada's food guide; a ban on advertising food and drink to children; a potential tax on sugar-sweetened beverages; a ban on partially hydrogenated oils to minimize trans fat content in food; a review of nutrition food labelling; nutrition labelling on menus; a public awareness campaign on healthy eating; and a plan for making healthy food more affordable. Recommendations also include the promotion of the Canadian Physical Activity Guidelines; and increased funding to ParticipACTION. Finally, several recommendations focus on training for physicians; advocating for school programs; funding for pilot projects; and a public awareness campaign on healthy active lifestyles.¹

Local Action – Toronto Public Health Initiatives

Toronto Public Health delivers a range of programs and services across childhood in order to promote health and prevent obesity and other chronic diseases.

Preconception and the Prenatal Period

TPH's services in the preconception and prenatal periods aim to promote healthy pregnancy, birth and child health outcomes. Preconception programming includes population-based interventions that aim to promote overall health before conception among women and men in their reproductive years. Achieving and maintaining a healthy weight prior to pregnancy is one of several preconception health messages promoted. This message is incorporated in TPH's [Reproductive Life Plan](#), a free web-based educational resource available to women and men of reproductive age in Toronto.

TPH's prenatal services include targeted and universal programs which incorporate educational messaging on the importance of healthy weight gain in pregnancy and address other risk factors for childhood obesity, such as maternal smoking. The Healthiest Babies Possible program provides nutrition interventions for nutritionally at-risk pregnant women and encourages gestational weight gain according to current guidelines. Promoting healthy weight gain in pregnancy and returning to appropriate weight after pregnancy are also messages shared in the other prenatal programs offered and supported by TPH, such as the *Welcome to Parenting* (an e-learning prenatal education program that is available free to all pregnant individuals), and at Canada Prenatal Nutrition Program sites (currently 37 sites across Toronto).

The Early Years

The Ontario Public Health Standards (OPHS) require health units to use a comprehensive health promotion approach to increase the rate of exclusive breastfeeding to six months with continued breastfeeding to 24 months and beyond (2014). The Baby-Friendly Initiative (BFI) designation is one vehicle to achieve this objective. BFI is an internationally recognized designation established by the WHO and UNICEF acknowledging hospitals and community health services that implement best practices to protect, promote and support breastfeeding. TPH achieved BFI designation in 2013 and is committed to maintaining designation. TPH, in collaboration with our community partners, provides comprehensive breastfeeding services including telephone counselling, breastfeeding clinics and support groups and home visits. In addition, all Toronto birthing hospitals are distributing the TPH Breastfeeding Your Baby booklet to their patients.

Toronto's Peer Nutrition Program supports Toronto's diverse population of parents and caregivers of children aged six years and under and is offered in many languages. The Nobody's Perfect program teaches parents about healthy eating and physical activity, including the reduction of screen time through group health education and parent capacity building. Another parenting initiative involves the use of Physical Activity Kits in facilitated interactive workshops that include four modules: the Canadian Physical Activity Guidelines, Physical Health Promotion, Physical Literacy and Safety in Physical Activity.

Toronto Public Health staff use NutriSTEP® screening tools, which are valid and reliable questionnaires designed to assess the eating habits and identify nutrition problems in young children ages 18 months to 5 years. The toddler and preschooler questionnaires are available in different languages and can be used by professionals, parents and caregivers.

Elementary School-age Years

TPH supports Student Nutrition Programs within schools which help create healthier eating habits and prevent obesity and the early onset of chronic diseases/conditions, such as diabetes and cardiovascular disease.⁸ The nutritious meals offered provide students with nutrients and energy they need to be ready to learn and participate in school.²¹ The Healthy Kids Strategy report²⁰ recommends the establishment of a universal school nutrition program for all Ontario publicly funded schools, both elementary and secondary. In response, the Ministry of Children and Youth Services has provided funding for up to 214 new student nutrition programs in Toronto between 2013 and 2016. Within Toronto, municipally funded student nutrition programs will reach over 179,000 Toronto children and youth each day in 565 schools and community sites in 2016.

There are many other health promotion initiatives in Toronto to support the health and well-being of children. Some examples include the Toronto District School Board's Fit for Life initiative and Health Action Teams in Toronto Catholic District School Board schools. Both initiatives support physical activity and healthy eating within school specific action plans and include Toronto Public Health as a partner. Toronto Public Health staff also work with schools, child care centres, after school programs and

community agencies on a wide array of programming related to physical activity and healthy eating, such as PALS (Playground Activity Leaders in Schools), Active and Safe Routes to School, Rethink What You Drink, Who are You?, among others.

An initiative within Toronto Public Health, *Into Kids' Health (IKH)* has recently been piloted and evaluated within higher needs schools. In 2012, Toronto Public Health completed a review that expanded and updated the evidence base for nutrition and physical activity interventions to prevent obesity in school-aged children 6-12 years of age.²² The *IKH* pilot provided an opportunity for Toronto Public Health to apply recommendations from this evidence-based review in a new and innovative way.

<http://healthevidence.org/documents/webinars/Final%20Report%20Sept%202014-12.pdf>

In 2013, additional funding was approved in the TPH cost-shared budget to add six additional staff positions (4 PHNs and 2 Dietitians) to begin implementing the recommendations from the evidence-based review on preventing childhood obesity in higher needs school communities. Schools involved in the pilot were selected based on specific criteria in collaboration with the Toronto District School Board (TDSB) and the Toronto Catholic District School Board (TCDSB). All pilot schools were considered higher needs (i.e., lower socioeconomic level) according to school board criteria.

The guiding principles of *IKH* include: using the best available evidence; building on current programs while incorporating innovative approaches; integrating a positive mental health and well-being component; addressing harm or unintended effects; and ensuring that approaches align with other TPH and School Board frameworks, policies and practice guidelines.

The *IKH* pilot goal was to build capacity of higher needs school communities to foster healthy growth and development in elementary school-aged children through the promotion of nutrition, physical activity and mental health and well-being. The 10-5-2-1-0 messaging used in this pilot promotes the following on a daily basis: 10 or more hours of sleep, 5 or more servings of vegetables & fruit, 2 hours or less of screen time, 1 hour or more of moderate to vigorous physical activity and 0 sugar-sweetened drinks.

Toronto Public Health Nurses and Dietitians provided intensive support to 10 participating pilot schools. Working as “mobilizers” in school communities, they:

- facilitated each community's ability to develop and execute an action plan;
- connected the school community with other local partners and initiatives;
- engaged parents more intensively;
- coordinated services in a more comprehensive and sustained way and;
- provided access to funding for implementing their action plans.

Between December 2013 and March 2014, PHNs consulted with school staff and community partners to complete a comprehensive school community assessment. As part of the assessment, built environment audits (i.e. "walkability"), as well as food mapping, were conducted around each school. Priority setting and the development of action plans

took place and in the 2014-15 school year, activities were implemented and an evaluation was conducted.

The evaluation involved pre and post-test surveys for both grade 5 students (grade 6 students in one middle school) and parents to understand changes in their physical activity and nutrition behaviours, and mental health and well-being. It also involved post qualitative and quantitative surveys or interviews of teachers, administrators, and Public Health Nurses to examine changes in the school community that support the overall pilot goal.

Evaluation results indicate that within the first 7-8 months of implementation of activities, students and parents demonstrated an increase in knowledge of the 10-5-2-1-0 messages. Increase in knowledge in students overall was higher than parents as they were exposed to the messaging within the school community more regularly. Surprisingly, although behaviour change was not expected in such a short time frame, there were also positive changes in behaviours related to establishing set bedtimes, breakfast consumption, time spent watching television, physical activity, lunch consumption, and eating meals with family.

The evaluation also highlighted the need to emphasize these key areas in the future:

School:

1. Continue to provide events and activities that increase physical activity and build on the great work that has been done.
2. Plan activities and events for families that promote the 10-5-2-1-0 messages.
3. Promote the importance of adequate sleep and having a set bedtime.
4. Promote a school environment that encourages water consumption during the school day and at school events.
5. Provide opportunities for students to increase self-esteem and positive self-concept.

Home:

1. Plan to do something active as a family every day, inside or outside.
2. Avoid serving sugar-sweetened drinks.
3. Create a routine with your child which includes turning off screens one hour before bedtime.
4. Listen and talk to your child about how they feel and show acceptance for their feelings. Model optimistic thinking.
5. Be aware and limit the amount of time your child spends in front of screens outside of school time.
6. Turn off screens and encourage family mealtimes.

Programming recommendations include building on parent engagement activities; continuing to support student leadership activities; supporting professional development; continuing to explore and support policy development activities; and supporting school administrators in enhancing current partnerships and fostering new ones. Results of the

evaluation will be used to make program improvements as this initiative expands into more TDSB and TCDSB schools.

Policy and Supportive Environment Initiatives

Toronto Public Health is a supporting member of the Stop Marketing to Kids (M2K) Coalition, a national-level advocacy coalition led by the Heart & Stroke Foundation and Childhood Obesity Foundation. The coalition is urging the federal government to act on its commitment - stated in the Mandate Letter to the Minister of Health in November 2015 - to regulate food and beverage marketing to children. These regulations were also recommended in the recent Senate report on obesity in Canada. The Board of Health recently recommended that the federal government ban all marketing to children aged sixteen and under. <http://www.toronto.ca/legdocs/mmis/2016/hl/bgrd/backgroundfile-92004.pdf>

Through its Active City initiative, TPH staff are working with City Planning, Social Development and Finance Administration, Transportation Services to create a safer and more conducive built environment for cycling and walking. This includes providing input to the development of Toronto's Complete Street Guidelines, revisions to the bike plan and the review of the Official Plan.

Toronto Public Health staff have mapped measures of Toronto's food retail environment since many Torontonians face economic and geographic barriers to accessing nutritious and culturally appropriate foods. The results showed geographic inequalities in the density of healthier food retail outlets, but also found that there are relatively few feasible locations for new supermarkets. Staff are coordinating a Healthy Corner Stores pilot initiative to support smaller food retail establishments, such as convenience stores, to sell nutritious and affordable foods. This project is currently being expanded to include two additional stores (for a total of four) with the intent of expanding to other stores across the city. Staff have developed materials for store operators to determine which products are deemed "healthy". A multi-method research project is also being conducted in order to assess and better understand Toronto's supermarket landscape. A better understanding of this sector will lead to further exploration of innovative and effective interventions to help parents make healthier supermarket food purchases for their children.

The TPH Savvy Diner Menu Labelling initiative is focused on advocating for provincial legislation requiring calorie and sodium values on menus; educating the public on healthy eating out and the benefits of menu labelling; encouraging the public to advocate for menu labelling; testing the feasibility of providing nutrition information to customers at the point of purchase in small, independent restaurants; and assessing industry interest in an 'awards-based' program. Based on evaluation findings, TPH staff are conducting a 2nd generation communication strategy aimed at the restaurant industry, especially those who fall outside Ontario's new provincial legislation that is scheduled to take effect on January 1, 2017. TPH has recently created an expert Advisory Committee to shape the next phase of the Savvy Diner initiative. The objectives of Phase 2 are to: 1) help educate restaurant operators on menu labelling requirements, and 2) support restaurants and future chefs to create healthier menu options. TPH is committed to positively influence the behaviour of Torontonians when they choose to eat foods prepared away from home

Toronto Public Health has received designation as a Best Practice Spotlight Organizations (BPSO[®]). This designation from the Registered Nurses Association of Ontario (RNAO) is in recognition of excellence in implementation of best practice in public health. TPH staff contributed to the revision of the RNAO Primary Prevention of Childhood Obesity Clinical Best Practice Guidelines¹⁵ which is focused on evidence-based strategies to reduce obesity. The goal of this project is to promote healthy child growth and development through interventions that will promote healthy eating, physical activity and mental health and well-being. A number of the recommendations in these guidelines are being implemented through TPH programs as highlighted in this report. Professional development has also been a focus and the initial phase has involved mandatory training of Childhood Obesity Prevention Best Practice Champions using the Best Start resource, *It Takes a Village: Taking Action for Healthy Children*. <http://www.beststart.org/TakingAction/>.

Healthy Kids Community Challenge

The provincially funded Healthy Kids Community Challenge (HKCC), is the result of a recommendation in the Healthy Kids Strategy report.²⁰ The HKCC is a three-year initiative targeting children 0-12 years old, their parents/families and service providers to address prevention of childhood overweight and obesity. HKCC is based on the EPODE (Ensemble Prévenons l'Obésité des Enfants – Together Let's Prevent Childhood Obesity) methodology. EPODE began in France over two decades ago and has been recognized by the World Health Organization as an international best practice in obesity prevention. The HKCC combines a community-led approach with centralized provincial co-ordination. The program focus is on developing and leveraging new and existing policies, programs and supports to encourage positive behaviour change to prevent childhood overweight and obesity, and to promote healthy growth and development. Public Health Ontario is leading the evaluation of the HKCC.

In 2014, a City of Toronto collaboration of Public Health, Children's Services, Parks, Forestry and Recreation, and Social Development, Finance & Administration (SDFA), applied for and received one-time funding of up to \$4,500,000 over three fiscal years 2015-2018 from the Ministry of Health and Long-Term Care (MOHLTC) to lead HKCC projects in Toronto. Proposals were approved in four areas in Toronto: Rexdale, Humber-Downsvew, Central Scarborough, and Danforth-East York. There are 45 participating communities in total in the province. The City Project Manager for the HKCC in Toronto, which is housed in SDFA, is working with four lead agencies selected through an RFP process and these lead agencies have conducted a needs assessment and are implementing a specific theme related to healthy eating or physical activity every nine months. The themes are being selected by the MOHLTC according to the best available evidence on the risk and protective factors that lead to, or prevent, childhood overweight and obesity. Each community is implementing programs and policies to address the distinct needs and leverage the unique assets within their specific community. The importance of adequate sleep is to be integrated as appropriate.

The HKCC is guided by four principles:

- Focus on healthy kids, not just healthy weights

- Support health equity through interventions at the population-level and by targeting at-risk populations
- Recognize that healthy kids live in healthy families, schools and communities
- Focus on positive health messages

Toronto Public Health is on the City Steering Committee, and at the local level with staff assigned to each of the four communities. An advisory committee within TPH has also been established to co-ordinate activities, resources, programs and services to support the action plans of the four communities.

CONCLUSION

Monitoring overweight and obesity status, as well as risk and protective factors, in children continues to be challenging, due to lack of a co-ordinated provincial surveillance system. Despite this challenge, the primary prevention of childhood obesity continues to be an important public health issue from international, national, provincial and local perspectives. Toronto Public Health is addressing this issue through a multi-faceted approach during the preconception/prenatal period, the early years, and elementary school-age years. Results from the evaluation of the *Into Kids' Health* pilot initiative are encouraging, and this initiative, as well as several other TPH programs and services, align well with the provincial Healthy Kids Community Challenge. Since no one single intervention will fully address childhood obesity, TPH is using a comprehensive approach in partnership with other organizations.

CONTACT

Yvonne de Wit
Director (Acting),
Chronic Disease & Injury Prevention
Toronto Public Health
Tel: 416-392-1355
Email: ydewit@toronto.ca

Judi Wilkie
Manager,
Chronic Disease & Injury Prevention
Toronto Public Health
Tel: 416-338-1671
Email: jwilkie@toronto.ca

SIGNATURE

Dr. David McKeown
Medical Officer of Health

REFERENCES

- ¹Standing Senate Committee on Social Affairs and Technology. (2016) *Obesity in Canada: A Whole-of-Society Approach for a Healthier Canada*. Retrieved from http://www.parl.gc.ca/content/sen/committee/421/SOCI/Reports/2016-02-25_Revised_report_Obesity_in_Canada_e.pdf
- ²Public Health Ontario. (2014). *Evidence brief: The positive impacts of physical activity on the whole child*. Retrieved from https://www.publichealthontario.ca/en/eRepository/Physical_Activity_Whole_Child_EB_2014.pdf
- ³Statistics Canada, *Canadian Health Measures Survey: Directly measured physical activity of Canadians, 2012-13*. Retrieved from <http://www.statcan.gc.ca/daily-quotidien/150218/dq150218c-eng.htm>
- ⁴Toronto Public Health (2014). *Healthy Futures: Toronto Public Health Student Health Survey*. Retrieved from <http://www.toronto.ca/legdocs/mmis/2015/hl/bgrd/backgroundfile-76821.pdf>
- ⁵ParticipACTION, (2015). *2015 Report Card on Physical Activity for Children and Youth. The Biggest Risk is Keeping Kids Indoors*. Retrieved from http://www.participaction.com/sites/default/files/downloads/Participaction-2015ReportCard-FullReport_4.pdf
- ⁶Public Health Ontario. (2013). *Addressing Obesity in Children and Youth: Evidence to Guide Action for Ontario*. Retrieved from <https://www.publichealthontario.ca/en/BrowseByTopic/HealthPromotion/Pages/Addressing-Obesity-in-Children-and-Youth.aspx>
- ⁷Statistics Canada. (2011). *Sugar Consumption among Canadians of All Ages*. Retrieved from <http://www.statcan.gc.ca/pub/82-003-x/2011003/article/11540-eng.pdf>
- ⁸Toronto Public Health. (2012). *Nourishing Young Minds*. Retrieved from <http://www.google.ca/url?url=http://tfss.ca/files/download/18627aa24e83baa&rct=j&frm=1&q=&esrc=s&sa=U&ved=0ahUKEwi4ovuOh4LNAhVM2IMKHZvyDLUQFggUMA&usg=AFQjCNFfhiY7zfhNyasqwE8JF3-SayNN4Q>
- ⁹Evers S., Taylor J., Manske S., Midgett C. (2001). *Eating and smoking behaviours of school children in southwestern Ontario and Charlottetown, PEI*. *Can J Public Health*, 92(6): 433-436.
- ¹⁰Shields, M. (2006). *Overweight and obesity among children and youth*. *Health Reports*, 17(3): 27-42. Retrieved from <http://www.statcan.gc.ca/pub/82-003-x/2005003/article/9277-eng.pdf>

- ¹¹Statistics Canada, (2004). *Canadian Community Health Survey*. Retrieved from <http://www.statcan.gc.ca/pub/82-620-m/2006002/4053669-eng.htm>
- ¹² CBC News, (2011, March 18). Lack of sleep called 'global epidemic'. Retrieved from <http://www.cbc.ca/news/health/lack-of-sleep-called-global-epidemic-1.991855>
- ¹³Best Start Resource Centre. (2013). *Obesity in Preconception and Pregnancy*. Retrieved from http://www.beststart.org/resources/preconception/BSRC_obesity_report_April2014.pdf
- ¹⁴Mamun, AA, Mannan, M, and Doi, SA. (2014). *Gestational weight gain in relation to offspring obesity over the life course: a systematic review and bias-adjusted meta-analysis*. *Obesity Reviews*, 15: 338-347.
- ¹⁵Registered Nurses' Association of Ontario. (2014). *Primary Prevention of Childhood Obesity*. Toronto: ON: Registered Nurses' Association of Ontario.
- ¹⁶Toronto Public Health. (2010). *Breastfeeding in Toronto: Promoting Supportive Environments*. Retrieved from <http://www.toronto.ca/legdocs/mmis/2010/hl/bgrd/backgroundfile-28423.pdf>
- ¹⁷Statistics Canada, (2012). *Duration of Exclusive Breastfeeding in Canada* <http://www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/prenatal/exclusive-exclusif-eng.php>
<http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=1050501>
- ¹⁸Rahman, T., Cushing, R.A., Jackson, R.J. (2011). *Contributions of built environment to childhood obesity*. *Mt. Sinai J Med*, 78(1):49-57.
- ¹⁹Ministry of Health and Long-Term Care (2008) *Ontario Public Health Standards*. Revised 2015. Retrieved from http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/
- ²⁰Ministry of Health and Long-Term Care. (2013). *No time to wait: The healthy kids strategy*. Retrieved from http://www.health.gov.on.ca/en/common/ministry/publications/reports/healthy_kids/healthy_kids.aspx
- ²¹Toronto District School Board (2012). *Feeding Our Future: The First- and Second-Year Evaluation*. Retrieved from http://beta.images.theglobeandmail.com/archive/01405/Feeding_Our_Future_1405357a.pdf
- ²²A Review of the Evidence: School Based Interventions to Address Obesity Prevention in Children 6-12 Years of Age, September 2012
<http://healthevidence.org/documents/webinars/Final%20Report%20Sept%2024-12.pdf>