

Supporting healthier food environments in the City of Toronto: Current policies and priority actions

Official Report of the Local Food-EPI Project
Spring 2019



Report Authors

Kimiya Karbasy, MSc
Lana Vanderlee, PhD
Mary L'Abbé, PhD

Acknowledgements

The Local Food-EPI Project is led by Kimiya Karbasy and Dr. Mary L'Abbé, an extension of the Food-EPI Canada study led in 2017 by Dr. Lana Vanderlee and Dr. Mary L'Abbé in the WHO Collaborating Centre of Nutrition and Chronic Disease Prevention at the Department of Nutritional Sciences, University of Toronto. This research was funded by a grant from the Canadian Institutes of Health Research (CIHR) (#343709). We would like to gratefully acknowledge the support of Sahar Goorang, the INFORMAS research group, including Dr. Stefanie Vandevijvere, Dr. Boyd Swinburn and Dr. Gary Sacks, as well as Ms. Karbasy's thesis advisory committee, Dr. Loren Vanderlinden, and Dr. Erin Hobin.

We would like to extend our sincerest gratitude to the government representatives who have helped review the policy evidence collated for this work, and the experts involved in this process.

Recommended citation:

Karbasy K, Vanderlee L, L'Abbe M. Supporting healthier food environments in the City of Toronto: Current policies and priority actions. 2019. Available at:
www.labbelab.utoronto.ca/Local-Food-EPI-2019

ISBN: 978-0-7727-8780-4

© University of Toronto



UNIVERSITY OF
TORONTO

Table of Contents

Background	4
Global Food-EPI	6
Local Food-EPI Process	6
<i>Methods</i>	<i>13</i>
Results	18
<i>Extent of Implementation Compared to Good Practice</i>	<i>19</i>
<i>Proposed Actions</i>	<i>20</i>
Evaluation, challenges and limitations	21
Implications for Policy	22
List of Experts	23
References	24

Background

Diet related NCDs

The high global burden of non-communicable diseases (NCDs) is worrisome, and diet is now the leading risk factor for mortality globally, with the issue spanning both high income and low-income countries. Canada is no exception, with the most recent estimates suggesting that approximately 64% of Canadians are living with overweight or obesity⁷. The most recent nutrition data from Canada suggest that there has been little improvement in dietary habits, and that the quality of the Canadian diet is poor^{8,9}. As a result, unhealthy diet is one of the leading cause of mortality in Canada¹⁰.

The nutrients of public health concern most closely related to obesity and NCDs include added sugar, saturated and *trans*-fat and sodium, as they are also currently consumed in excess amounts by Canadians. In addition, low consumption of vegetables and fruit, nuts and seeds, milk, and whole grains are often of concern as the vast majority of Canadians consume these 'healthy food' in amounts much lower than recommended targets¹⁰.

Importance of food environments

The food environment is comprised of the physical, economic, political and sociocultural surroundings, opportunities and conditions that can all influence food choices and, ultimately, health^{1,11}.

Government policy lays a foundation for the food environment, by establishing regulations and priorities for investment of government funding and resources, providing a framework within which the food industry and the general public operate. The current Canadian food environment is dominated by nutrient-poor, energy dense food items, which are increasingly more accessible, available at a lower cost and more heavily promoted than their healthy food counterparts, all of which are known to contribute to poor dietary habits among Canadians.

Comprehensive government policy action is needed to support a food environment that can contribute to healthy diets and improve health among all Canadians.



International Network for Food and Obesity/non-communicable diseases Research, Monitoring and Action Support

The INFORMAS network was founded by a group of international experts from 9 universities and 4 global NGOs in the area of food and nutrition, and this network has since expanded to include dozens of researchers from more than 30 countries across the globe. The objective of INFORMAS is to 'monitor and benchmark food environments and policies globally to reduce obesity, diet-related non-communicable diseases and their related inequalities', and the work aligns with overarching efforts of the United Nations and the World Health Organization to prioritize monitoring of NCDs and associated risk factors to improve population health¹⁻⁶.

The INFORMAS group is led by Prof. Boyd Swinburn from University of Auckland, and Dr. Mary L'Abbé is the Canadian lead for INFORMAS. For more information, visit www.informas.org and www.labbelab.utoronto.ca/INFORMAS

Importance of municipal government action

Municipal governments have the flexibility and mandate to respond to local concerns and consider issues that directly affect the specific interests of their electorate¹². Given the important influence that local policies can have on citizens, local policy development and implementation relies heavily on the local context, which varies from place to place¹³. Though in many instances regional or local government authority and resources are less extensive than state/provincial or federal jurisdictions, they are at times better able to ‘test out’ grassroots initiatives to determine its stability and effectiveness before higher level jurisdictions begin to dedicate financial and political resources to introducing a policy at their level^{14,15}.

In addition, local legislation has potential to influence neighbouring municipalities to adopt similar laws, thereby causing a ‘snowballing’ effect¹⁴. If a policy is successful at the local level, then the policy may ‘snowball’ to broader implementation at the state/provincial and federal governments. An excellent example of this in the food environment is New York City’s 2008 mandatory menu labelling of calories in restaurant chains, which was implemented in various other cities and states until it was fully implemented across the US in May 2018¹⁶. The increased flexibility and ability of local governments to quickly implement policies often lead them to be innovators in creating healthy public policy. Thus, local policy implementation and support plays a critical role in shaping the overall food environment.



Global Food-EPI

The Food Environment Policy Index (Food-EPI) has been implemented in 20 countries to date. Each country has adapted the Food-EPI methods to ensure that the analysis is appropriate at the country level using the same process infrastructure.

Food-EPI Canada was led by Dr. Lana Vanderlee and Dr. Mary L'Abbé in 2017. A panel of 71 non-government experts from across the country gathered to comprehensively assess federal and provincial food environment policies compared to international benchmarks of current best practices. For full reports, visit www.labelab.utoronto.ca/INFORMAS

These international efforts will provide opportunities for cross-country comparisons and lay the groundwork for policy evaluation unfolding at national and subnational levels worldwide.



Local Food-EPI Process

The Local Food Environment Policy Index (Local Food-EPI) is based on the Healthy Food Environment Policy Index, developed by INFORMAS to comprehensively assess government policies and actions for creating healthier food environments using a set of standardized, common tools¹⁷.

The Local Food-EPI framework distinguishes government action based on two components: 1) Policy and 2) Infrastructure Support.

Policy Component

Within the **Policy component**, there are 6 domains or policy areas that can be implemented to improve the municipal food environment:



Food Composition: There are government systems implemented to ensure that out-of-home meals minimize the energy density and the levels of nutrients of concern (salt, saturated fat, trans fat, added sugar)



Food Labelling: There is a regulatory system implemented by the government for consumer-oriented labelling on menu boards in restaurants to enable consumers to easily make informed food choices



Food Promotion: There is a comprehensive policy implemented by the government to reduce the impact (exposure and power) of promotion of unhealthy foods to children (<16 years)



Food Prices: Food pricing policies (e.g. taxes and subsidies) are aligned with health outcomes by helping to make healthy eating choices the less expensive choices



Food Provision: The government ensures that there are healthy food service policies implemented in publicly-funded settings to ensure that food provision encourages healthy food choices, and the government actively encourages and supports private companies to implement similar policies



Food Retail: The government has the power to implement policies and programs to support the availability of healthy foods and limit the availability of unhealthy foods in communities (outlet density and locations) and in-store (product placement)

Infrastructure Support Component

In the **Infrastructure Support component**, there are 7 support domains that outline municipal government practices that enable the implementation of successful government policy and action. These include:



Political Leadership: The political leadership ensures that there is strong support for the vision, planning, communication, implementation and evaluation of policies and actions to create healthy food environments, improve population nutrition, and reduce diet-related inequalities



Governance: Governments have structures in place to ensure transparency and accountability, and encourage broad community participation and inclusion when formulating and implementing policies and actions to create healthy food environments, improve population nutrition, and reduce diet-related inequalities



Monitoring and Intelligence: The government's monitoring and intelligence systems (surveillance, evaluation, research and reporting) are comprehensive and regular enough to assess the status of food environments, population nutrition and diet-related NCDs and their inequalities, and to measure progress on achieving the goals of nutrition and health plans



Funding and Resources: Sufficient funding is invested in ‘population nutrition’ to create healthy food environments, improved population nutrition, reductions in obesity, diet-related NCDs and related inequalities



Platforms for Interaction: There are coordination platforms and opportunities for synergies across government departments, levels of government, and other sectors (NGOs, private sector, and academia) such that policies and actions in food and nutrition are coherent, efficient and effective in improving food environments, population nutrition, diet-related NCDs and their related inequalities



Health-in-all-policies: Processes are in place to ensure policy coherence and alignment, and that population health impacts are explicitly considered in the development of government policies



Support for Communities: The local government prioritizes coordinated support mechanisms and resources for community-based interventions to create healthy food environments, improved population nutrition, reductions in obesity, diet-related NCDs and their related inequalities

Policy and Infrastructure Support indicators

The table below shows indicator names and good practice statements to which policy evidence from the Region of Peel, the City of Greater Sudbury, and the City of Toronto were compared.

Policy Indicators	
Indicator title	Good Practice Statements
1. Composition for out-of-home-meals	Food composition targets/standards/restrictions for out-of-home meals in food service outlets have been established by the government for nutrients of concern in certain foods or food groups (trans fats, saturated fat, salt, and added sugars)
2. Menu labelling	A consistent, single, simple, clearly-visible system of labelling the menu boards of all quick service restaurants (i.e. fast food chains) is applied by the government, which allows consumers to interpret the nutrient quality and energy content of foods and meals on sale
3. Restrict promotion of unhealthy food: non-broadcast media	Effective policies are implemented by the government to restrict exposure and power of promotion of unhealthy foods to children across non-broadcast media (e.g. print, outdoors and on/around public transport, cinema advertising, direct marketing, product design and packaging or point-of-sale (POS) displays)
4. Restrict promotion of unhealthy food: public sector settings	Effective policies are implemented by the government to ensure that unhealthy foods are not commercially promoted to children in public sector settings
5. Increase taxes on unhealthy foods	Taxes or levies on unhealthy foods (e.g. sugar-sweetened beverages, foods high in nutrients of concern) are in place to increase the retail prices of these foods and discourage unhealthy food choices where possible, and these taxes are reinvested to improve population health
6. Existing subsidies and food-related income supports favour healthy foods	The government ensures that subsidies and food-related income support programs are for healthy foods
7. Policies in public settings promote healthy food choices	The government ensures that there are clear, consistent policies in public sector settings for food service activities (canteens, food at events, fundraising, promotions, vending machines, water availability, public procurement standards etc.) to provide and promote healthy food choices
8. Support and training systems (public sector settings)	The government ensures that there are good support and training systems to help schools and other public sector organizations and their caterers meet the healthy food service policies and guidelines

9. Support and training systems (private companies)	Government actively encourages and supports private companies to provide and promote healthy foods and meals in their workplaces
10. Robust government policies and zoning laws: unhealthy foods	The local government has placed limits on the density or placement of quick serve restaurants or other outlets selling mainly unhealthy foods in communities by making community health and wellbeing an enforceable objective of the planning system
11. Robust government policies and zoning laws: healthy foods	Zoning laws and related policies provide robust mechanisms are being used, where needed, by local governments to encourage the availability of outlets selling fresh fruit and vegetables, with a special focus on low-income neighbourhoods
12. In-store availability of healthy and unhealthy foods	The government ensures support systems are in place to encourage food stores to promote the in-store availability of healthy foods and to limit the in-store availability of unhealthy foods
13. Food service outlet availability of healthy and unhealthy foods	The government ensures support systems are in place to encourage food service outlets to increase the promotion and availability of healthy foods and to decrease the promotion and availability of unhealthy foods

Infrastructure Support Indicators

Indicator title	Good Practice Statements
1. Strong, visible political support	There is strong, visible, political support (at the level of the office of the Mayor or Medical Officer of Health or Chair of the Board of Health) for improving food environments, population nutrition, diet-related NCDs and their related inequalities
2. Comprehensive implementation plan to link municipal needs	There is a comprehensive, transparent, up-to-date food strategy/food charter (including priority policy and program strategies) linked to local needs and priorities, to improve food environments, achieve a local and sustainable food system, reduce the intake of the nutrients of concern to meet WHO and national recommended dietary intake levels, and reduce diet-related NCDs
3. Priorities for reducing inequalities	Government priorities have been established to reduce inequalities or protect vulnerable populations in relation to diet, nutrition, obesity and NCDs
4. Support for State/Provincial or Federal policy agenda	There is strong advocacy from local government to improving food environments, population nutrition, diet-related NCDs and their related inequalities pushing State/Provincial or Federal level policy agenda
5. Restricting commercial influence on policy development	There are robust procedures to restrict commercial influences on the development of policies related to food environments where they have conflicts of interest with improving population nutrition
6. Use of evidence in food policies	Policies and procedures are implemented requiring the use of evidence in the development of food policies

7. Transparency for the public in the development of food policies	Policies and procedures are implemented for ensuring transparency in the development of food policies
8. Access to government information	The government ensures public access to comprehensive information and key documents (e.g. budget documents, annual performance reviews and health indicators) related to public health nutrition and food environments
9. Monitoring food environments	Monitoring systems, implemented by the local government, are in place to regularly monitor food environments (especially for food promotion to children, and nutritional quality of food in schools and other public sector settings), against codes/ guidelines/ standards/ targets
10. Monitoring population health indicators	There is regular monitoring of adult and childhood nutrition status and population intakes, overweight and obesity prevalence using anthropometric measurements, and prevalence of NCD risk factors and occurrence rates (e.g. prevalence, incidence, mortality) for the main diet-related NCDs
11. Evaluation of major programs	There is sufficient research and evaluation of major programs and policies to assess effectiveness and contribution to achieving the goals of the nutrition and health plans
12. Monitoring progress on reducing health inequalities	Progress towards reducing health inequalities or health impacts in vulnerable populations and social determinants of health are regularly monitored
13. Population nutrition budget	The 'population nutrition' budget, as a proportion of total health spending and/or in relation to the diet-related NCD burden is sufficient to reduce diet-related NCDs
14. Research funding for obesity & NCD prevention	Municipal funded research and evaluation is targeted for improving food environments, reducing obesity, NCDs and their related inequalities
15. Coordination mechanisms	There is a formal platform set in place to ensure policy coherence, alignment, and integration relating to food, obesity and diet-related NCD prevention
16. Platforms for government and food sector interaction	There are formal platforms between local government and the commercial food sector to implement healthy food policies
17. Platforms for government and civil society interaction	There are formal platforms for regular interactions between government and civil society on food policies and other strategies to improve population nutrition
18. Assessing the health impacts of food and non-food policies	There are processes (e.g. health impact assessments) to assess and consider health impacts during the development of food and non-food policies
19. Mechanisms to support community-based interventions	The local government has put in place overarching structures to provide broad and coordinated support for creating and maintaining healthy food environments at the community level across multiple settings

20. Implementation of social marketing campaigns	The local government implements evidence-based public awareness, informational and social marketing campaigns across a range of broadcast and non-broadcast media to promote healthy eating
21. Food and nutrition in education curricula	The local government provides guidance and support for the inclusion of food and nutrition programming for preschool, primary and secondary school children
22. Unique initiatives	The local government has undertaken unique initiatives not captured elsewhere that promote healthy food environments and healthy food behaviours in creative ways

Methods

The Local Food-EPI was adapted to the Ontario municipal context to enable a thorough understanding of the state of food environment policy in each of the three municipal jurisdictions.

A depiction of the overall Local Food-EPI process is shown below:



Step 1. Analyze context

In consultation with experts in local food policy, the following Ontario municipal legislations were considered to better understand the scope of municipal jurisdictional control: *Municipal Act, 2001* (*City of Toronto Act, 2006* for City of Toronto), *Municipal Freedom of Information and Protection of Privacy Act, 1990*, *Local Food Act, 2013*, and Ontario Public Health Standards (OPHS) [under the *Health Protection and Promotion Act*], most recently updated in 2018.

Municipal jurisdictions in Ontario are recognized as either single-tier or two-tier, which consists of upper-tier and lower-tier municipalities¹⁸. Upper-tier municipalities, such as regions, counties or districts, govern and provide services to multiple lower-tier municipalities (e.g., cities or towns) located within their jurisdictional boundaries while single-tier municipalities govern a single city¹⁸. Single-tier municipalities assume full responsibility of provincially-set legislations, including the *Municipal Act, 2001* however, in two-tier municipalities, this responsibility is divided between the upper-tier and lower-tier municipalities.

Step 2. Policy search and evidence document development

A comprehensive search was conducted from January to April 2018 to identify policies that were implemented for each of the domains/indicators as of January 1st, 2018 in the Region of Peel, the City of Greater Sudbury, and the City of Toronto. Policy collation for the Region of the Peel was limited to the regional government rather than policies implemented by its lower-tier local municipalities (Cities of Mississauga, Brampton, and Town of Caledon). The search strategy included government websites (i.e., public health unit and city websites), published grey literature sources, and knowledge from experts. Whenever possible, information was obtained on the level of implementation of the policy and considered all levels of the policy cycle (agenda setting and initiation, policy development, implementation, and enforcement).

Each evidence document described the policy context with regards to relevant policies at the federal and provincial level, municipal regulations or requirements governed by the province of Ontario, and jurisdiction structure (i.e., regional versus local municipal control). Evidence of local policy evaluation that had been conducted regarding the specific policy domain (either by government bodies or in peer-reviewed literature) was also included. The evidence documents that were used for the ratings exercise can be accessed online at: www.labbelab.utoronto.ca/Local-Food-EPI-2019

Step 3. Policy verification

Policy information collated in Step 2 was verified for accuracy by public health officials (also known as government stakeholders) from each jurisdiction's public health unit. Government stakeholders were given an opportunity to provide additional details or information that was not identified in the comprehensive search. Certain references provided by the public health units are not publicly available, but were used to provide more detail for the purposes of the rating exercise. Evidence documents were verified by staff from the Region of Peel - Public Health, Public Health Sudbury & Districts, and Toronto Public Health for the Region of Peel, the City of Greater Sudbury, and the City of Toronto, respectively.

Step 4. Expert Panel and Rating Workshops

Experts from public health units and various areas of food environment who were local to each jurisdiction were invited to participate in the expert panel. Invitations were extended to academic experts, health and nutrition-related non-governmental organizations, and public health officials to ensure a broad mix of representation in each jurisdiction. Government actors were purposefully included in the sample to support dissemination of the results, as has successfully been conducted in other countries completing the original Food-EPI process¹⁹⁻²¹. Public health officials who participated in the workshops were also able to answer any questions and provide any clarification on policies being rated, as needed. All experts were asked to declare any conflict of interest specifically relating to work with the food industry prior to participating.

Evidence documents were shared with expert panels two weeks prior to the workshop to allow them to familiarize themselves with the Local Food-EPI process and the policies and infrastructure supports that were to be rated. A workshop was held at each jurisdiction's public health unit, with the exception of Toronto, which was conducted at the University of Toronto. The expert panels were given an opportunity to introduce themselves and given a detailed background of the study by the workshop moderators. Before rating, a brief overview of the policy or infrastructure support in question was given by the moderators and an opportunity was provided to participants to ask for clarification. Ratings were collected using the Qwizdom© clickers and audience response system. Due to unforeseen circumstances and time constraints of this study, the structure of the Toronto workshop was modified such that participants conducted the ratings individually in advance of the workshop and had the policy discussions as a group with the workshop moderators.

The policy data collected for 31/35 indicators were rated for the extent of implementation compared to 'good practice' statements in all policy areas by the expert panels for each jurisdiction; the remaining 4 indicators were not evaluated for municipal level implementation as they were governed by provincial legislation in Ontario (menu labelling of calories in Ontario, taxes on unhealthy food) or data was not available and not relevant to the local jurisdiction (sufficient population nutrition budget, unique initiatives). The rating process used a Likert scale

to rate the current degree of implementation compared to the ‘good practice’ statement for each indicator (0-20%; 21-40%; 41-60%; 61-80%; 81-100%). Participants were asked to take into consideration several factors in their rating, including the various stages of the policy cycle, the details of the policy at hand, and intentions and plans of the government such as establishment of working and advisory groups. For example, a policy in the development stage would receive a lower rating than a policy that was been adopted by the local government and fully implemented and evaluated.

Step 5. Prioritization of proposed actions

Upon completion of all the ratings, there was a group discussion to identify the policy gaps and action areas in order to compile a list of proposed policies and infrastructure support actions. The outcome of this process identified policy gaps and a list of proposed prioritized actions for each municipality. Before discussion began, participants were asked to consider two elements when proposing and prioritizing actions: ‘Importance’ and ‘Achievability’. Evaluation criteria for each element can be found in the table below. Afterwards, comments and feedback provided during the discussion were taken into consideration to compile a list of 10 proposed actions with the top 5 actions being prioritized. The list was circulated with the participants of the workshops for a final chance for feedback and priority ranking.

Note that proposed and prioritized actions were not needed in every Local Food-EPI domain. Expert panels for each jurisdiction identified areas which they believed actions were needed.

Before the end of each workshop, participants were asked to fill out an outcome evaluation regarding the Local Food-EPI process and provide any feedback on the appropriateness of the indicators rated in the workshop.

Importance includes:		Achievability includes:	
Need	Size of the implementation gap	Feasibility	How easy or hard the action is to implement
Impact	Effectiveness of the action on improving food environments and diets (including reach and effect size)	Acceptability	The level of support from key stakeholders including government, the public, public health, and industry
Equity	Progressive / regressive effects on reducing food/diet-related health inequalities	Affordability	The cost of implementing the action
Other positive effects	For example on protecting rights of children and consumers	Efficiency	The cost-effectiveness of the action
Other negative effects	For example regressive effects on household income, infringement of personal liberties		

Step 6. Data Analysis

For each jurisdiction, descriptive statistics (median and percentage) were determined to examine the ratings on the level of implementation of each policy and infrastructure support indicator. **The rating scores were categorized into 4 implementation levels: high (>75% implemented), moderate (51-75% implemented), low (25-50% implemented), and very little, if any (<25% implemented) compared to good practice statements.** Assessment of inter-rater reliability was performed using AgreeStat, estimated as the percentage of agreement between experts using quadratic weights (Agreestat 2013.1, Advanced Analytics, Gaithersburg USA). For estimation of variance, the sample of subjects was set at 100%, and the sample of raters was set according to the response rate for each workshop. Gwet's AC2 statics was done to measure the degree to which experts in each workshop agreed in their assessment decisions for each of the indicators presented from Local Food-EPI.

Differences between ratings provided by government and non-government raters were then compared across all three jurisdictions. The distribution of the data was tested using the Shapiro-Wilk test. The data were found to be non-normally distributed and therefore the Wilcoxon rank-sum test was conducted to assess whether there was a significant difference between the two groups of expert raters.

Results

A total of 48 experts were invited to be a part of the Local Food-EPI process. Of those, 21 participated in the workshops (1 Toronto expert participated in the ratings and did not participate in the policy discussion), for an overall response rate of 44%.

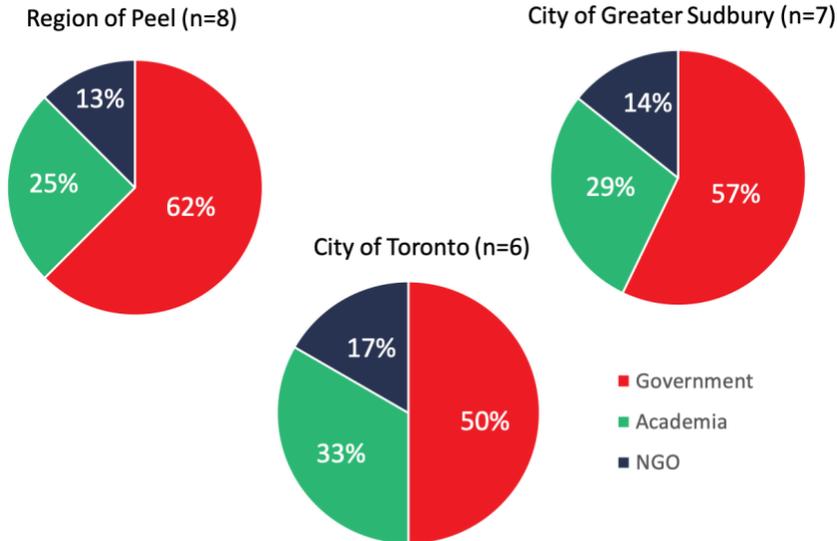
Each municipality was by rated by 6-8 experts. The inter-rater reliability ranged from 0.48-0.73, with average inter-rater reliability of 0.64; 2 of 3 jurisdictions had a coefficient greater than 0.5.

Comparing the two groups, there was no statistically significant difference in the rating scores of actions between government and non-government experts in any of the jurisdictions (Wilcoxon rank-sum test $P > 0.05$).

Local Jurisdiction	n of raters	Inter-rater reliability and percent agreement			
		Gwet's AC2	95% CI	Percent agreement	95% CI
Region of Peel	8	0.73	0.66-0.80	0.91	0.89-0.94
City of Greater Sudbury	7	0.72	0.69-0.76	0.92	0.91-0.93
City of Toronto	6	0.48	0.26-0.70	0.87	0.81-0.92

Expert Breakdown

A breakdown of experts from academia, non-governmental organizations for each municipality is shown in the pie charts below

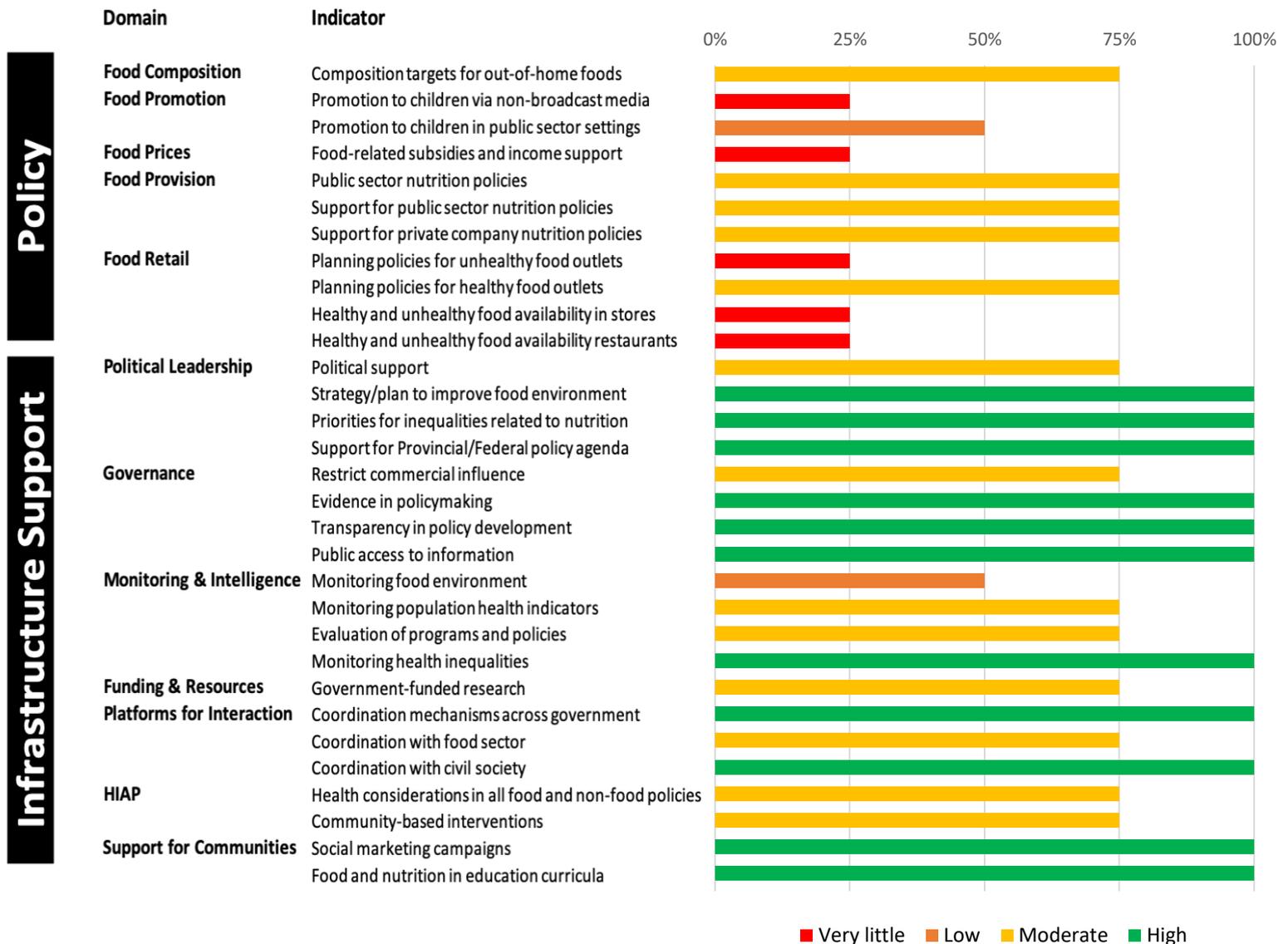


Extent of Implementation Compared to Good Practice

Expert Ratings for 31 policy and infrastructure support indicators

City of Toronto Highlights

- Strong city advocacy to advance federal and provincial policy agenda around issues related to food and nutrition
- Up-to-date systems to measure health inequalities in the city
- High number of city-backed programs to implement food and nutrition education in schools and community settings



Proposed Actions

The following actions were proposed and prioritized by the Expert Panel:

Prioritized Actions:

- **Advocate for provincial action to mandate warning labels for nutrients of concern (sodium, sugar, and saturated fat) on menus and menu boards in restaurant chains with 20 or more establishments.**
 - **In collaboration with the city divisions, introduce a policy in city contracts to restrict all marketing to children on city property.**
 - **Implement food access initiatives to bring healthy, affordable food to lower income areas throughout the city by identifying a program model that can be sustained and expanded.**
 - **Create local, sustainable food procurement standards for city-run settings such as recreation facilities, public libraries, and parks to promote healthy food options and restrict sales of unhealthy food in vending machines, cafeterias, and snack bars/concession stands.**
 - **Support full implementation of the city's Food Charter through increased investment of resources and political commitment towards the city's Food Policy Council and Food Strategy.**
-
- Require warning symbols or messages on all advertisements on sugar-sweetened beverages within the City of Toronto (i.e., signage, posters, billboards, transit shelters and vehicles, wall or any other surface or material).
 - Invest in infrastructure to ensure there is access to adequate, safe, free drinking water in all city-run facilities, going beyond recreation centers.
 - Establish a public health lens, with reference to healthy eating behaviours, into the city's zoning code to regulate the density of food service outlets near residential neighbourhoods and schools.
 - Develop and provide simplified, self-administered monitoring tools to community organizations and recreation centers to evaluate and track progress on programs to improve the food environment.
 - Invest in monitoring and enforcement of city policies related to healthy, sustainable diets through an annual assessment of compliance for city divisions that procure, serve and sell food.

Evaluation, challenges and limitations

Strengths of the Local Food-EPI process

- **INTERNATIONAL METHODS:** Based on internationally-developed process created by leading experts in food environment policy in INFORMAS and implemented methods conducted in 20 countries to date.
- **BROAD EXPERTISE:** An expert panel with a broad range of expertise local to each municipality from a variety of institutions and organizations.
- **TRANSPARENCY:** There was involvement of government stakeholders throughout the process to increase transparency of the process and to inform the process at multiple steps.
- **VARYING JURISDICTIONS:** The pilot considered local jurisdictions in Ontario with differing geographic locations, population densities, and government structure (i.e., 1-tier versus 2-tier governments) to assess the successful utility of the Local Food-EPI process in different contexts.

Challenges of the Local Food-EPI Process

- **BIAS:** Typically, an area of expertise for any expert in food environments is focused on one or two domains or policy areas, and few experts have a knowledge of all food environment policy areas. As a result, each expert brings a certain lens that is applied to their evaluation of the importance and achievability of these actions. This may have introduced some level of individual bias in each individual prioritization exercise; however, it is likely that using group scores may help to minimize this individual influence.

OUTCOME EVALUATION

A post-workshop evaluation form was completed by 19/21 experts, to evaluate both the Local Food-EPI process as well as personal development of the Expert Panel. Highlights of the results showed:

- **81%** of participants agreed or strongly agreed that their knowledge of food environments and related food and nutrition policy increased
- **93%** of participants agreed or strongly agreed that they increased their knowledge of current best practices that other governments are taking in North America in relation to food environment policy
- **81%** agreed or strongly agreed that they had made new professional connections or strengthened existing relationships
- **87%** agreed or strongly agreed that the Local Food-EPI process was likely to contribute to beneficial policy change
- **94%** felt it was important to repeat the study to monitor government progress
- **81%** stated that they would definitely like to be involved in future iterations of the Local Food-EPI project

- **VARIATIONS BETWEEN WORKSHOPS:** Each workshop was designed to begin with in-person ratings followed by a discussion moderated by the authors, however, experts for the City of Toronto were asked to conduct the ratings prior to the meeting, which was followed by discussion at a later date due to technical challenges of bringing the group together. It should be acknowledged that the nature of the Local Food-EPI process demands flexibility while maintaining the objectives of the study as a priority.

Implications for Policy

Municipal food environment policies have significant potential to influence the food environment policy landscape in Canada, complementing federal and provincial policies²². The Local Food-EPI framework highlighted municipal advocacy efforts to drive implementation of policies beyond the local jurisdiction, particularly with action in areas of food labelling and income support for healthy foods. Advocacy by local governments to support provincial or federal governments to apply impactful healthy food policies in Canada, such as restricting marketing of unhealthy food and beverages to children, can positively shape the broader food environment, as has been observed in several other countries¹⁷.

As a result of this process, municipal governments were further informed of the strengths, weaknesses, and gaps in their local food environment policy and action. While the region and cities examined in this study have implemented some policies, there are a variety of opportunities to develop new food policies to improve their local food environments. It is our hope that this research will help guide the food and nutrition policy agenda in municipalities in Canada.

What next?

Future directions involve further implementing the Local Food-EPI process in other municipalities in Ontario and beyond to potentially conduct a cross municipality comparison based on similar indices such as urbanization and population density. Furthermore, future iterations of this pilot study will allow for monitoring progress of the local food environment policies in these three jurisdictions.

List of Experts

The experts that contributed to the municipal assessment of policies and prioritization, and their respective affiliations, are listed below. Note that participants were familiar with the municipal jurisdiction in which they evaluated. **All experts took part on their own behalf, and were not formally representing the organizations to which they belong.** Experts were involved in the ratings and prioritization exercise. The final preparation of this report and the contents here within are solely the responsibility of the authors, and experts have not explicitly endorsed the contents of this report.

Mavra Ahmed, University of Toronto
Diana Johnson, Toronto Public Health
Jennifer Levy, Toronto Public Health
Lisa Swimmer, Toronto Public Health
Pat Vanderkooy, Dietitians of Canada
Fiona Yeudall, Ryerson University

References

- (1) Swinburn B, Sacks G, Vandevijvere S, Kumanyika S, Lobstein T, Neal B, et al. INFORMAS (International Network for Food and Obesity/non-communicable diseases Research, Monitoring and Action Support): overview and key principles. *Obesity Reviews*. 2013;14(S1):1-12.
- (2) United Nations General Assembly. Political declaration of the high-level meeting of the general assembly on the prevention and control of non-communicable diseases. 2011.
- (3) World Health Organization. Report of the commission on ending childhood obesity. 2016.
- (4) World Health Organization. Global Strategy on Diet, Physical Activity and Health. 2004.
- (5) World Health Organization. Global action plan for the prevention and control of noncommunicable diseases 2013-2020. 2013.
- (6) World Health Organization. Set of recommendations on the marketing of foods and non-alcoholic beverages to children. 2010.
- (7) Statistics Canada. Table 105-2023 Measured adult body mass index (BMI) (World Health Organization classification), by age group and sex, Canada and provinces, Canadian Community Health Survey - Nutrition. 2017; Available at: <http://www5.statcan.gc.ca/cansim/a26;jsessionid=88BDD65D7D8EF08E45F0CC37FC62C935?lang=eng&retrLang=eng&id=1052023&tabMode=dataTable&p1=-1&p2=31&srchLan=-1>.
- (8) Jessri M, Nishi SK, L'Abbe MR. Assessing the nutritional quality of diets of Canadian children and adolescents using the 2014 Health Canada Surveillance Tool Tier System. *BMC Public Health*. 2016;16(1):381.
- (9) Garriguet D. Diet quality in Canada. *Health Rep*. 2009;20(3):41-52.
- (10) GBD 2017 Diet Collaborators. Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2019:1-15.
- (11) Swinburn BA, Sacks G, Hall KD, McPherson K, Finegood DT, Moodie ML, Gortmaker SL. The global obesity pandemic: shaped by global drivers and local environments. *The Lancet*. 2011;378(9793):804-814.
- (12) Pomeranz JL. The Unique Authority of State and Local Health Departments to Address Obesity. *American Journal of Public Health*. 2011;101(7):1192-1197.

- (13) Matland RE. Synthesizing the Implementation Literature: The Ambiguity- Conflict Model of Policy Implementation. *Journal of Public Administration Research and Theory*. 1995;5(2):145-174.
- (14) Shipan CR VC. Bottom-up Federalism: The Diffusion of Antismoking Policies from U.S. Cities to States. *American Journal of Political Sciences*. 2006;50(4):825-843.
- (15) Shipan CR VC. Policy Diffusion: Seven Lessons for Scholars and Practitioners. *Public Administration Review*. 2012;72(6):1-9.
- (16) New York City Department of Health and Mental Hygiene. De Blasio Administration Announces New Calorie Labeling Rules. 2015; Available at: <https://www1.nyc.gov/site/doh/about/press/pr2017/calorie-label-rules.page>.
- (17) Swinburn B, Vandevijvere S, Kraak V, Sacks G, Snowdon W, Hawkes C, et al. Monitoring and benchmarking government policies and actions to improve the healthiness of food environments: a proposed Government Healthy Food Environment Policy Index. *Obesity Reviews*. 2013;14(S1):24-37.
- (18) Sancton A. *Canadian local government: an urban perspective - Second Edition*. Canada: Oxford University Press Canada; 2015.
- (19) Vandevijvere, S., Mackay S, Swinburn B. Benchmarking Food Environments - Progress by the New Zealand Government on Implementing Recommended Food Environment Policies and Prioritised Recommendations. 2017; Available at: <https://cdn.auckland.ac.nz/assets/fmhs/soph/globalhealth/informas/docs/Executive%20Summary%2018%20July%202017%20CW03.pdf>.
- (20) Phulkard S, Vandevijvere S, Lawrence M, Tangcharoensathien V, Sacks G. Level of implementation of best practice policies for creating healthy food environments: assessment by state and non-state actors in Thailand. *Public Health Nutrition*. 2017;20(3):381-390.
- (21) Nieto C, Rodríguez E, Sánchez-Bazán K, Tolentino-Mayo L, Carriedo-Lutzenkirchen A, Vandevijvere S, Barquera S. The INFORMAS healthy food environment policy index (Food-EPI) in Mexico: An assessment of implementation gaps and priority recommendations. *Obesity Reviews*. 2019:1-11.
- (22) Vanderlee L, Goorang S, Karbasy K, Schermel A, L'Abbé MR. Creating healthier food environments in Canada: Current policies and priority actions. 2017; Available at: <http://www.labbelab.utoronto.ca/Food-EPI-Canada-2017>.

Department of Nutritional Sciences
Faculty of Medicine
University of Toronto

Medical Sciences Building
1 King's College Circle
Toronto, ON, Canada
M5S 3K1

www.labbelab.utoronto.ca/Local-Food-EPI-2019



UNIVERSITY OF
TORONTO