



## REPORT FOR ACTION

## Canada's New Food Guide - Implications and Opportunities for Action

**Date:** September 9, 2019

**To:** Board of Health

**From:** Medical Officer of Health

**Wards:** All

### SUMMARY

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Canada's new Food Guide, released by Health Canada in January 2019, presents a practical, scientific approach to healthy eating. Health Canada also released Canada's Dietary Guidelines for revising programs and policies to reflect the new Food Guide, in particular those that are government-funded. The Food Guide recommends eating a variety of nutritious foods each day focusing on fruits, vegetables, whole grains and proteins, and limiting highly-processed foods. It acknowledges that a range of culturally-diverse foods can make up a healthy diet. For the first time, Canada's Dietary Guidelines recognize the relationship between food consumption and the environment. Based on the most recent evidence, it recommends to the public how to eat to meet health as well as environmental goals. Finally, the new Food Guide acknowledges that nutrition concerns more than what people eat. It is also determined by environmental factors, including marketing, food skills, and food literacy.

Canada's Dietary Guidelines are a collection of health and environmental principles, and also a declaration of shared responsibility and a call to action to stakeholders across the country to pursue policy initiatives that will improve the food environment and reduce long-standing barriers to healthy eating while also reducing environmental impacts.

The updates to Canada's new Food Guide and Dietary Guidelines provide an opportunity for the City of Toronto to review food-related programs and policies, and to consider new actions that will actively promote healthy eating, and healthy food environments.

## RECOMMENDATIONS

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The Medical Officer of Health recommends that:

1. The Board of Health commend the federal Minister of Health on the new Canada's Food Guide which will promote a more sustainable food system and support Canadians in making healthier food choices.
2. The Board of Health, in recognition of the scientific dietary guidance upon which the new Canada's Food Guide is based, request the Medical Officer of Health to:
  - a. collaborate with relevant City divisions (Solid Waste Management Services, Parks, Forestry & Recreation, Children's Services, Seniors Services & Long-Term Care, Corporate Real Estate Management, Purchasing and Materials Management, and City Planning) and organizations in the City of Toronto, on working towards alignment with Canada's Dietary Guidelines;
  - b. collaborate with the General Manager, Parks, Forestry and Recreation, on promoting water as the beverage of choice in the City of Toronto's facilities by incorporating drinking fountains and water bottle filling stations, as appropriate, in redevelopment, state-of-good repair, and new development projects, and supporting the development of a Food and Beverage Policy;
  - c. collaborate with the General Manager of Solid Waste Management Services and the Executive Director of Corporate Real Estate Management on supporting their work to reduce single-use and takeaway items, as it relates to Canada's Dietary Guidelines on sustainable food consumption; and
  - d. collaborate with the General Manager of Solid Waste Management Services and the Chief Purchasing Officer on supporting their work to implement circular procurement as it relates to Canada's Dietary Guidelines on sustainable food consumption.
3. The Board of Health, in recognition of the social and environmental factors influencing healthy eating, as outlined in the new Canada's Dietary Guidelines:
  - a. request the Medical Officer of Health to report back in the fall of 2019 on the accessibility and affordability of healthy food and the state of food insecurity in Toronto;
  - b. urge the Province of Ontario to pass provincial Bill 60, *An Act to amend the Ministry of Community and Social Services Act to establish the Social Assistance Research Commission*, in order to establish a mechanism to account for the cost of healthy eating when social assistance rates are revised; and
  - c. continue to support the intent of federal Bill S-228, *An Act to amend the Food and Drugs Act* (prohibiting food and beverage marketing directed at children) with other health organizations.

## FINANCIAL IMPACT

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There is no financial impact resulting from the adoption of the recommendations in this report.

## DECISION HISTORY

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On November 27, 2017, the Board of Health requested that the federal Minister of Health make environmental sustainability a guiding principle in the new Canada's Food Guide, to support Canada's effort to mitigate and increase resilience to climate change.  
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.HL23.1>

On October 30, 2017, the Board of Health reiterated its request to the Ministry of Community and Social Services to increase social assistance rates to a level that supports basic needs, including household food security, and also reiterated its support for a living wage.  
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.HL22.4>

On April 16, 2019, Toronto City Council adopted a motion aimed at having the City of Toronto eliminate single-use plastic waste in all City facilities, as well as at City events and campaigns where feasible and practical.  
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.MM6.9>

## COMMENTS

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### Background

Nutrition-related chronic illnesses such as cardiovascular disease, certain cancers, type 2 diabetes, osteoporosis, and obesity continue to be serious health issues in Canada and around the world. Experts now agree that food is the single most powerful lever we have to optimize both human and planetary health.<sup>1</sup>

On January 22, 2019, Health Canada released the new Canada's Food Guide, which was last updated in 2007. Health Canada also released Canada's Dietary Guidelines for revising programs and policies to reflect the new Food Guide, in particular those that are government-funded. The Food Guide is based on evidence from over 100 systematic reviews – the strongest form of scientific evidence – on the relationship between food and health. It includes input from academics, health professionals, members of provincial and territorial governments, and national Indigenous organizations. It also draws on feedback from the public, gathered from focus groups and consultations. Unlike previous versions, food and beverage industry groups were not invited to consult, nor were any industry-commissioned studies included in the evidence review.<sup>2</sup>

# The New Canada's Food Guide

## *Guiding Principles*

Canada's new Food Guide is based on three principles: (1) that nutritious foods are the foundation for healthy eating; (2) that highly-processed or prepared foods and beverages undermine healthy eating by contributing to excess sodium, free sugars (easily digested, quickly absorbed), and saturated fat, and therefore should not be consumed regularly; and (3) that food skills are needed to navigate the complex food environment and support healthy eating.<sup>3</sup>

Based on the latest scientific evidence, key recommendations include:

- eat plenty of vegetables and fruit (visually half your plate);
- eat protein foods that are plant-based as a regular alternative to meat and poultry (visually a quarter of your plate);
- choose whole grain foods (visually a quarter of your plate);
- make water your drink of choice;
- cook more often;
- eat meals with others;
- be mindful of your eating habits;
- use food labels;
- be aware of food marketing; and
- limit foods high in sodium, sugar, and saturated fat.

In addition, based on the latest scientific evidence:

- juice is no longer recommended in any amount;
- refined grains (e.g., white bread, white rice) are no longer recommended;
- dairy is no longer a distinct food group (it is now one of many “protein foods”); and
- the health risks of alcohol consumption are acknowledged.

There is also emphasis on environmental sustainability in the Canada's Dietary Guidelines. For the first time, it recognizes the relationship between food choices and the environment.<sup>3</sup> In addition, food production, processing, transportation and waste can contribute to climate change.<sup>1</sup> Healthy eating, with an emphasis on minimally-processed, plant-based foods, is more sustainable and is an effective action to reduce greenhouse gas emissions.<sup>1</sup> Based on the most recent evidence, the new Food Guide recommends to the public how to eat in a healthy way that will also help achieve environmental goals.

Appendix A reviews the new Food Guide's main messages in detail, providing an explanation of the scientific evidence on which they are based.

The purpose of Canada's Food Guide is to present an evidence-based pattern of eating that will promote health and reliably lower the risk of disease.<sup>3</sup> It acknowledges barriers to following such a pattern and, in doing so, exposes structural disparities related to nutrition in Canada providing opportunities for stakeholders to recognize and address these barriers.

## Implications for the City of Toronto

Health Canada's new Dietary Guidelines state that, "foods and beverages offered in publicly-funded institutions should align with Canada's Dietary Guidelines."<sup>3</sup> The City of Toronto currently operates 50 child care centres, 10 emergency and transitional shelter programs, 10 long-term care homes, and more than 180 recreational facilities, including community centres and libraries. Adoption of portions of the Food Guide may result in changes to menu planning, food production and related purchasing and delivery in these settings.

Some guidelines have already been adopted by City divisions. For example, Children's Services has notified caregivers that, to align with Canada's new Dietary Guidelines, fruit juice will no longer be offered in City-operated child care centres and children are now encouraged to bring reusable water bottles. This report recommends that the Medical Officer of Health collaborate with all relevant City divisions (Solid Waste Management Services; Parks, Forestry & Recreation; Children's Services; Seniors Services & Long-Term Care; Corporate Real Estate Management; Purchasing and Materials Management; and City Planning) to align with Canada's Dietary Guidelines. This work will include supporting the City's efforts to reduce single-use and takeaway items through convenient access to drinking water in City facilities and supporting Parks, Forestry and Recreation in developing a Food and Beverage Policy.

Appendix B provides an overview of the technical implications of the new Canada's Food Guide for City programs and community services, as well as other actions taken to date.

## A Broader Responsibility to Create a Less Harmful Food Environment

The healthy choice should be the easy choice, but that is not always the case for Toronto residents. A food environment characterized by strong marketing of unhealthy options and persistent inequities often stands in the way of eating in a healthy and sustainable manner.

### *Federal Policy*

The revised Food Guide recognizes the powerful role that marketing has on food choices. Marketing includes a wide array of tactics used by companies to promote food products, including advertisements, packaging, product placement, promotions and sponsorship. Children are uniquely vulnerable to these tactics<sup>4</sup>. Bill S-228, legislation to amend the *Food and Drugs Act* – prohibiting food and beverage marketing directed at children aimed to ban the marketing of unhealthy foods and beverages to children under 13 years of age. By the time the federal government rose for the summer in 2019, the bill had not passed. This report recommends continued support for the intent of Bill S-228, and continued collaboration with local partners on similar policy initiatives.

## *Provincial Policy*

In Toronto, one in every five households reports experiencing food insecurity – having inadequate access to food due to financial constraints.<sup>5</sup> Following the new Food Guide is expected to save Canadian families, on average, 6.8 percent of their annual food costs – but this may not be enough to prevent some people from having to choose between food and other expenses, such as housing.<sup>6</sup>

Social assistance policy in Ontario is currently under review. *Bill 60*, an act to amend the Ministry of Community and Social Services Act to establish the Social Assistance Research Commission, would see a group formed to study the current cost of living in the province, and make recommendations regarding social assistance rates. The group would be well-positioned to ensure the cost of healthy eating is included in those calculations. This report recommends support for *Bill 60*, and the establishment of a mechanism to account for the cost of healthy eating as social assistance rates are revised. The report also recommends that Toronto Public Health staff report back in fall 2019 on the state of food insecurity in Toronto.

## *Municipal Policy*

The City of Toronto is a major purchaser of food, beverage and catering services. Within the Solid Waste Management Services and Purchasing and Materials Management divisions, there is already work underway to develop socially and environmentally-responsible procurement policies under the Circular Procurement Framework and Implementation Plan. In addition, Toronto Public Health and Solid Waste Management Services are working together to reduce food waste and have successfully become a "Participant City" in the Ellen MacArthur Foundation's Cities and a Circular Economy for Food Initiative, where Toronto is part of a leading group of organizations working to shift towards a regenerative food system. This report recommends that the Medical Officer of Health collaborate with the General Manager of Solid Waste Management Services, the Chief Purchasing Officer, and other organizations in the city to explore how this work could incorporate the principles of Canada's Dietary Guidelines by emphasizing nutritious, plant-based foods, limiting highly-processed foods, and support menus that set whole grains as the default, and reducing or eliminating sugar sweetened beverages.

## **CONTACT**

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## **SIGNATURE**

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Dr. Eileen de Villa  
Medical Officer of Health

## **ATTACHMENTS**

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Appendix A: Canada's New Food Guide: Explanation of the Main Messages  
Appendix B: Canada's New Food Guide: Implications for City Programs and  
Community Services

## **Appendix A: Canada's New Food Guide: Explanation of the Main Messages**

### **Healthy Eating Concerns Patterns, Not Portions**

Health Canada set out to make the new Food Guide more relevant and useful to the average Canadian. The emphasis is now on proportion, or the relative mix of foods, rather than portion size. There are no prescriptive daily quotas or targets to reach (or fail to reach), and the advice is designed to be adaptable to different cultural traditions. The aim is to encourage a habit of thinking holistically about food rather than following rigid, item-by-item rules.

Patterns of eating that emphasize plant-based, minimally-processed, and whole grain foods typically result in higher intakes of vegetables and fruit, nuts, soy protein and dietary fibre. These foods are all associated with a lower risk of cardiovascular disease through well-established protective factors such as lowering LDL-cholesterol.<sup>7</sup> Dietary fibre is also associated with a reduced risk of colon cancer and type 2 diabetes.<sup>8</sup>

### **Highly-Processed Foods Undermine Health**

In recent years, there has been a significant increase in the availability and consumption of highly-processed food and beverages.<sup>9</sup> This shift in consumption patterns has been linked to, among other problems, the global rise in obesity rates.<sup>10-11</sup> Highly-processed foods and beverages, when consumed on a regular basis, contribute to excess intake of saturated fat, sodium, and/or sugar—all of which undermine health.

The body's processes for digesting food and using food energy are designed to achieve balance, among, electrolytes, vitamins, minerals, and hormone levels—all of which have optimal ranges. Occasional consumption of unhealthy food will not compromise the body's systems, however, chronic overconsumption of certain types of food can eventually disrupt the biological functions needed to process them. The result is ill health and disease. Overconsumption of saturated fat, salt, and sugar, in particular via highly-processed foods (where saturated fat, salt, and sugar are concentrated), is consistently linked to the risk factors for a host of chronic illnesses, including heart disease, cancer, diabetes, and stroke.<sup>12</sup>

#### ***Saturated Fat***

Cholesterol is a fat-like substance essential to the proper functioning of the body's cells. It moves throughout the body packaged inside two main types of molecules—high-density lipoproteins (HDL) and low-density lipoproteins (LDL). LDL molecules transport cholesterol throughout the body, delivering it to cells that require it to function. If LDL molecules are damaged before they reach their destinations, they spill cholesterol into the bloodstream where it can amass into plaques. These plaques can obstruct blood flow. Narrowed or blocked blood vessels can lead to chest pain (angina), heart attack, or stroke (cardiovascular disease).



Saturated fats are mainly found in animal-based foods, such as cream, butter, cheeses, and fatty meats, as well as some tropical oils, like coconut and palm kernel. Their consumption has been associated with increased total and LDL cholesterol in the blood, and implicated in the formation of cholesterol plaques.<sup>13</sup>

Half of Canadians consume saturated fat above the recommended limit, with top sources being cheese, red meat, butter and hard margarine.<sup>3</sup> Lowering the intake of foods that contain mostly saturated fat, and replacing them with foods that contain mostly unsaturated fat (commonly found in plant-based products) has been shown to improve blood lipids in children and adults and to decrease the risk of cardiovascular disease.<sup>14,15,16,17,18,19,20</sup> Lower saturated fat intake in children is also associated with lower blood pressure and reduced risk of obesity.<sup>13</sup>

### *Sodium*

When the concentration of sodium in the bloodstream is high, the body retains water in an effort to dilute it. This increases the amount of fluid surrounding cells as well as the overall volume of blood in the body. Higher blood volume means more pressure on the walls of blood vessels and more work for the heart. Like any other muscle tissue, the walls of the heart and blood vessels will thicken over time if regularly over-exercised in this way. This leads to narrower conduits through which blood may flow and an increasingly rigid, inflexible heart muscle. Pumping blood through narrowed vessels is yet more work for the heart, and the blood flowing through narrower vessels puts yet more pressure on vessel walls. The resulting condition, high blood pressure is a risk factor for cardiovascular disease and stroke.<sup>21</sup>

The top sources of dietary sodium in Canada are highly-processed foods such as bakery products, processed meats and mixed dishes (e.g., refrigerated or frozen entrees and appetizers).<sup>22</sup> In 2017, 58 percent of all Canadians, 72 percent of children 4-13 years old, and more than 90 percent of males between the ages of 14-30 were consuming sodium above the recommended limits.<sup>22</sup>

### *Sugar*

When food is digested, the body converts carbohydrates (including sugar) into glucose. Most is sent into the bloodstream, causing a rise in blood glucose levels. This signals the pancreas to produce the hormone insulin, which directs cells to absorb glucose from the blood. Many cells will use glucose as energy but in excess it can be stored as fat. The process of converting food into energy is known as metabolism.

A diet consistently high in sugar can diminish the effectiveness the body's natural metabolic response. If blood glucose levels are chronically elevated, cells become unwilling or unable to respond to insulin's signals to take up glucose. So, the levels of glucose get even higher. And more insulin is released. Over time, cells may lose some or all of the receptors that respond to insulin and the pancreas may lose some or all of its ability to even produce the hormone.

The body can remain responsive to insulin's fat-storing messages during this process. Fat may start to accumulate posing a health risk, particularly around the organs and around the abdomen. Chronically high blood sugar levels can also interfere with leptin,

a hormone that communicates whether the body is hungry or full. This, again, can lead to fat accumulation and weight gain.

The main sources of sugar in the diets of Canadians are: sugary drinks, sugars, syrups, preserves, confectioneries, desserts and bakery products.<sup>23</sup> Sugary drinks are the top source in Toronto residents' diets, contributing 23 percent of total sugar intake.<sup>24</sup> Consumption data indicate that Toronto youth are the highest consumers of sugary drinks. Children and youth who consume at least one sugar-sweetened beverage serving per day are 55 percent more likely to be overweight or obese.<sup>25</sup>

### *Chronic Disease*

Blood pressure that is persistently elevated is described as hypertension. When an artery becomes so clogged that blood flow is reduced or stopped, it is referred to as atherosclerosis. When there is such weakness or pressure that a blood vessel finally bursts open, an aneurysm has occurred. The clot that forms over a ruptured blood vessel can cause a heart attack or stroke. When the heart becomes worn out, too weak to pump effectively, it is called heart failure. And when the body loses the ability to produce or respond to insulin, the result is diabetes. The risk of all of these health problems is increased by a diet high in salt, sugar, and/or saturated fat. <sup>12,16,17,18,22,26,27,28</sup>

## **Food Literacy and Skills Are Important**

It is difficult to resist consuming highly-processed foods. They are heavily promoted, readily available, and inexpensive. But even basic food skills, such as the ability to assemble simple meals or snacks using nutritious ingredients, can contribute to improved food choices and eating behaviors. This is true at any age, but particularly among children and youth. Among 4-18 year-olds, for example, food skills programs have led to significantly increased vegetable and fruit consumption.<sup>29</sup> Self-perceived cooking skills in youth 18 to 23 years of age have been associated with positive nutrition-related outcomes up to ten years later, including more frequent preparation of meals that include vegetables and less frequent consumption of fast foods.<sup>30</sup> When food is prepared and cooked at home, the use of highly-processed products can be reduced.

## **Food Choices Affect the Environment**

Plant-based foods generally have a lower environmental impact than dairy and meat, particularly red meat. Patterns of eating that are higher in plant-based foods and lower in animal-based foods have environmental benefits including helping to conserve soil, water and air, and reducing greenhouse gas emissions.<sup>1</sup> While health is the primary focus of Canada's Food Guide, the dietary guidance aligns well with a report recently released by established agencies. Over 30 international scientists contributed to Food in the Anthropocene: the EAT-Lancet Commission on Healthy Diets from Sustainable Food Systems.<sup>1</sup> The EAT Lancet report explains how food production, processing, transportation and waste contribute to climate change, and how land and water system use affects biodiversity and soil health. It outlines the dietary shifts necessary to benefit both human and planetary health, which are largely mirrored in the new Food Guide. In addition, in August 2019, the United Nations Intergovernmental Panel on Climate Change released a Special Report on Climate Change and Land suggesting that coordinated actions and policies across the food system are necessary to improve

climate change adaptation and mitigation, reduce poverty, and improve public health. They recommended "balanced diets, featuring plant-based foods, such as those based on coarse grains, legumes, fruits and vegetables, nuts and seeds, and animal-sourced food produced in resilient, sustainable and low-greenhouse gas emission systems to improve planetary and human health."

## **Appendix B: Canada's New Food Guide: Implications for City Programs and Community Services**

### **Child Care Settings**

Food served in child care settings is subject to standards set out in the Ontario Ministry of Children and Youth Services' *Child Care and Early Years Act*. The Act states that all meals, snacks and beverages provided to children must meet requirements detailed in Health Canada's food guidance documents and that drinking water must be available at all times.<sup>31</sup>

The City of Toronto operates over 50 child care centres. Staff report that meals offered to children at Toronto Early Learning & Child Care Services were already incorporating many of the principles of the new Food Guide. For example, the menus include little or no added saturated fat; are low in sugar and sodium; feature whole grains, fruits and vegetables, cow's milk and unsweetened fortified soy beverages; and promote water.

In the previous Food Guide, 100 percent apple and orange juices were part of the "Vegetables and Fruit" food group. Fruit juices are now recognized as sugary drinks that should not be consumed regularly, and water is identified as the beverage of choice. As of April 1st, 2019, fruit juice is no longer offered in City-operated child care centres. It has been replaced by extra fruits and/or vegetables. Children are being encouraged to bring reusable water bottles. This shift in policy has environmental as well as nutritional benefits, as it is expected to reduce food packaging waste.

### **Shelters**

The City's Shelter, Support & Housing Administration division operates 10 emergency and transitional shelter programs. Meals and snacks served in these settings are guided by the Toronto Shelter Standards, which state that staff must "ensure meals and snacks are of a size, quality, variety and nutritional value to meet the recommended guidelines of the Food Guide."<sup>32</sup>

In shelters, all meals are prepared from "scratch" which limits the number of highly-processed foods served. While previous menus included plant-based protein for lunch and always included a vegetarian option, a policy decision has been made to introduce a plant-based dinner entrée as the only menu option once per week. City-run shelters now serve fruit juice only for breakfast. Throughout the day, water is served, along with milk for breakfast and dinner. Plans to install water refill stations throughout the new and existing shelters are underway.

### **Seniors Services and Long-Term Care**

The City of Toronto operates 10 long-term care homes, with a total of 2,641 beds. Nearly half of all residents require a modified diet. Menu planning is based on requirements set out in the *Long-Term Care Homes Act*, which states that all menus must provide for adequate nutrients, fibre and energy based on the current Dietary Reference Intakes and for food variety as set out in the Food Guide.<sup>33</sup>

In City-operated homes, tap water is encouraged and served with every meal. These facilities have also committed to monitoring food waste, emphasizing locally produced foods, using whole wheat breads as a default for sandwiches, and making the primary menu item a healthier, lower sodium choice.

### **Recreation Centres, Libraries and other City Facilities**

Contracts that currently govern vending machines in recreation centres and public libraries require a proportion of products to be healthier snack and beverage choices. Products that were once considered “healthier” beverages, such as fruit juices and sweetened milks, are now recognized as sugary drinks that should not be consumed regularly. The new Food Guide recommends that water be available instead. Aligning with Canada's new Dietary Guidelines will allow the City to support convenient access to water bottle filling stations and drinking fountains while contributing to the projected decrease in single-use plastic and takeaway items resulting from a ban on the sale or provision of plastic bottled water in City facilities.

### **Schools**

The Ontario Ministry of Education's Policy/Program Memorandum 150 (P/PM 150) stipulates that Ontario school boards must ensure that all food and beverages sold on school premises for school purposes meet specified nutrition standards. It is anticipated that the nutrition standards of P/PM 150 will be updated by the Ontario Ministry of Education to align with the new Food Guide.

Toronto's Student Nutrition Programs are community-based meal and snack programs that operate primarily in schools. The foods served are based on provincial student nutrition guidelines set by the Ontario Ministry of Children and Youth Services, which will also require updating to align with the new Food Guide.

## REFERENCES

- <sup>1</sup> Willett W, Rockstrom J, Loken B, Springmann M, Lang T, Vermeulen S, et al. Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. *Lancet*. 2019;393(10170):447-492. doi:10.1016/S0140-6736(18)31788-4
- <sup>2</sup> Health Canada. Revision process for Canada’s Food Guide. Ottawa: Health Canada; 2019.
- <sup>3</sup> Health Canada. Canada's Dietary Guidelines. Ottawa: Health Canada; 2019.
- <sup>4</sup> Smith R, Kelly B, Yeatman H, Boyland E. Food Marketing Influences Children's Attitudes, Preferences and Consumption: A Systematic Critical Review. *Nutrients*. 2019;11(4):875-888. doi: 10.3390/nu11040875.
- <sup>5</sup> Canadian Community Health Survey (CCHS), 2017. Statistics Canada, Share File, Knowledge Management and Reporting Branch, Ontario Ministry of Health and Long-Term Care.
- <sup>6</sup> Charlebois S, Wambui B, Racey M, Fiander D, Smook M, Somogyi S, et al. Canada’s Food Guide: Awareness, Understanding, Affordability, and Barriers to Adoption (Preliminary Results). Dalhousie University and University of Guelph; 2019.
- <sup>7</sup> Anderson TJ, Gregoire J, Pearson GJ, Barry AR, Couture P, Dawes M, et al. 2016 Canadian Cardiovascular Society guidelines for the management of dyslipidemia for the prevention of cardiovascular disease in the adult. *Can J Cardiol*. 2016;32(11):1263–1282. doi:10.1016/j.cjca.2016.07.510
- <sup>8</sup> Scientific Advisory Committee on Nutrition. SACN Carbohydrates and health report. Norwich: Public Health England; 2015.
- <sup>9</sup> Moubarac JC, Batal M, Martins AP, Claro R, Levy RB, Cannon G, et al. Processed and ultra-processed food products: Consumption trends in Canada from 1938 to 2011. *Can J Diet Pract Res*. 2014;75(1):15-21. doi:10.3148/75.1.2014.15
- <sup>10</sup> Popkin BM, Gordon-Larsen P. The nutrition transition: worldwide obesity dynamics and their determinants. *Int J Obes Relat Metab Disord*. 2004;28(Suppl 3):S2-S9. doi:10.1038/sj.ijo.0802804
- <sup>11</sup> Swinburn BA, Sacks G, Hall KD, McPherson K, Finegood DT, Moodie ML, et al. The global obesity pandemic: shaped by global drivers and local environments. *Lancet*. 2011;378(9793):804-814. doi:10.1016/S0140-6736(11)60813-1
- <sup>12</sup> 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. April 3, 2019. doi: 10.1016/S0140-6736(19)30041-8
- <sup>13</sup> Health Canada. Fats. Ottawa: Health Canada; 2019.
- <sup>14</sup> Dietary Guidelines Advisory Committee. Scientific report of the 2015 Dietary Guidelines Advisory Committee: advisory report to the Secretary of Health and Human Services and the Secretary of Agriculture. Washington: U.S. Department of Agriculture, Agricultural Research Service; 2015.

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- <sup>15</sup> Eckel RH, Jakicic JM, Ard JD, de Jesus JM, Miller NH, Hubbard VS, et al. 2013 AHA/ACC guideline on lifestyle management to reduce cardiovascular risk: a report of the American College of Cardiology/American Heart Association task force on practice guidelines. *Circulation*. 2014;129(25 Suppl 2):S76-S99. doi:10.1161/01.cir.0000437740.48606.d1
- <sup>16</sup> Dietary Guidelines Advisory Committee. Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010: to the Secretary of Agriculture and the Secretary of Health and Human Services. Washington: U.S. Department of Agriculture, Agricultural Research Service; 2010.
- <sup>17</sup> Food and Agriculture Organization of the United Nations. Fats and fatty acids in human nutrition: report of an expert consultation. Rome: Food and Agriculture Organization of the United Nations; 2010.
- <sup>18</sup> Mensink RP. Effects of saturated fatty acids on serum lipids and lipoproteins: a systematic review and regression analysis. Geneva: World Health Organization; 2016.
- <sup>19</sup> Te Morenga L, Montez JM. Health effects of saturated and trans-fatty acid intake in children and adolescents: systematic review and meta-analysis. *Plos One*. 2017;12(11):e0186672. doi:10.1371/journal.pone.0186672
- <sup>20</sup> Brouwer IA. Effect of trans-fatty acid intake on blood lipids and lipoproteins: a systematic review and meta-regression analysis. Geneva: World Health Organization; 2016.
- <sup>21</sup> Ettehad, D, Emdin CA, Kiran A, Anderson SG, Callender T, Emberson J, et al. Blood pressure lowering for prevention of cardiovascular disease and death: a systematic review and meta-analysis. *Lancet*. 2016;387(10022):957-967. doi.org/10.1016/S0140-6736(15)01225-8
- <sup>22</sup> Health Canada. Sodium Intake of Canadians in 2017. Ottawa: Health Canada; 2017.
- <sup>23</sup> Langlois K, Garriguet D, Gonzalez A, Sinclair S, Colapinto CK. Change in total sugars consumption among Canadian children and adults. *Health Reports*. 2019;30(1):10-19.
- <sup>24</sup> Jones AC, Hammond D. Sugar consumption among Canadians and Toronto residents in 2015. University of Waterloo; 2018. (Unpublished report commissioned by Toronto Public Health)
- <sup>25</sup> Te Morenga L, Mallard S, Mann J. Dietary sugars and body weight: systematic review and meta-analyses of randomized controlled trials and cohort studies. *BMJ*. 2013;346:e7492. doi:10.1136/bmj.e7492
- <sup>26</sup> Strazzullo P, D'Elia L, Kandala N, Cappuccio FP. Salt intake, stroke, and cardiovascular disease: meta-analysis of prospective studies. *BMJ*. 2009;339:b4567
- <sup>27</sup> Schwingshackl L, Hoffmann G, Lampousi A, Knuppel S, Iqbal K, Schwedhelm C, et al. Food groups and risk of type 2 diabetes mellitus: a systematic review and meta-analysis of prospective studies. *European Journal of Epidemiology*. 2017;32(5):363-375.
- <sup>28</sup> Lim SS, Vos T, Flaxman AD, Danaei G, Shibuya K, Adair-Rohani H, et al. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: a systematic analysis for the

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Global Burden of Disease Study 2010. *Lancet*. 2012;380(9859):2224-60. Epub 2012/12/19. pmid:23245609

<sup>29</sup> Ontario Agency for Health Protection and Promotion (Public Health Ontario), Mensah G. Evidence Brief: Impact of food skills programs on fruit and vegetable consumption among children and youth. Toronto: Queen's Printer for Ontario; 2016.

<sup>30</sup> Utter J, Larson N, Laska M, Winkler M, & Neumark-Sztainer D. Self-perceived cooking skills in emerging adulthood predict better dietary behaviors and intake 10 years later: a longitudinal study. *J Nutr Educ Behav* 2018;50(5):494-500. doi:10.1016/j.jneb.2018.01.021

<sup>31</sup> Child Care and Early Years Act, 2014, S.O. 2014, c. 11, Sched. 1.

<sup>32</sup> City of Toronto Division of Shelter, Support & Housing Administration. Toronto Shelter Standards. Toronto; 2018.

<sup>33</sup> Long-Term Care Homes Act, 2007, S.O. 2007, c.8.