

Towards Evidence-Based, Health-Promoting Eating Recommendations

Background

Canada's Food Guide sets out recommended serving quantities from four groups: vegetables and fruit, grain products, milk and alternatives, and meat and alternatives.¹ This format has been criticized by experts for being confusing, unrealistic, and unadaptable for different cultures and lifestyles.² Earlier this year, Health Canada proposed to update the food guide, publishing for public comment draft *Guiding Principles and Recommendations* for healthy eating.

In line with global trends, the proposed *Guiding Principles and Recommendations* eliminate the outdated food category and serving size/number format. Instead, broad, easy-to-follow, culturally inclusive principles would guide healthy eating patterns to promote health and reduce the risk of nutrition-related chronic disease.

Among other things, the proposed *Guiding Principles and Recommendations* recommend:

- Regular intake of vegetables, fruit, whole grains and protein-rich foods, especially plant-based sources of protein
- Inclusion of foods that contain mostly unsaturated fat, instead of foods that contain mostly saturated fat
- Regular intake of water³

The draft *Guiding Principles and Recommendations* have been praised by nutrition experts, including Professor David Jenkins, who holds the Canada Research Chair in Nutrition and Metabolism and has received numerous national and international awards in recognition of his contribution to nutrition research.⁴ Dr. Jenkins has stated that he “would like to see a big emphasis on plant foods and a reduction in animal food use.”⁵

The meat and dairy industries are concerned that these recommendations would hurt their bottom lines. However, not only would the proposed recommendations benefit the health of Canadians, they would also improve our economy overall.

¹ Government of Canada, “Eating Well with Canada’s Food Guide.”

² Heather Loney, “Is Canada’s Food Guide Unrealistic?” *Global News* 22 June 2017, online: <https://globalnews.ca/news/2042397/is-canadas-food-guide-unrealistic/>.

³ Government of Canada, “Summary of Guiding Principles and Recommendations” [Draft], online: <https://www.foodguideconsultation.ca/>.

⁴ St. Michael’s, *David Jenkins Biography*, online: <http://stmichaelshospitalresearch.ca/researchers/david-jenkins/>.

⁵ Leslie Young, “What nutrition experts want from Canada’s new food guide,” *Global News* 20 July 2017 online: <https://globalnews.ca/news/3610264/what-nutrition-experts-want-from-canadas-new-food-guide/>.

Canadians Aren't Eating Enough Plant-based Foods

Cancer is the leading cause of death in Canada, responsible for 30 percent of deaths.⁶ Cancer costs the Canadian economy \$4.4 billion per year.⁷ However, about half of all cancers can be prevented through healthy living.⁸ According to Dietitians of Canada:

Plant foods like vegetables, fruit, whole grains and legumes (beans, peas and lentils) may help lower cancer risk. That's because plant foods have phytochemicals (plant chemicals), antioxidants, vitamins, minerals and fibre that protect our bodies against cell damage.⁹

The second leading cause of death in Canada is heart disease, responsible for 20 percent of deaths. According to Heart and Stroke Foundation, up to 80 percent of premature heart disease and stroke can be prevented through lifestyle.¹⁰ They advise eating more fruits, vegetables, and whole grains, and recommend Canadians "include beans, lentils and tofu as a regular component of your diet."¹¹ Cardiovascular disease costs the Canadian economy \$21.2 billion per year in direct and indirect costs, making it the costliest disease in Canada.¹²

An astonishing 11 million Canadians are living with diabetes or prediabetes, 90 percent of whom have type 2 diabetes,¹³ which can be prevented through diet and weight management.¹⁴ Diabetes Canada advises preventing and managing diabetes through diet, including by eating "more high-fibre foods such as whole grain breads and cereals, lentils, dried beans and peas,

⁶ Canadian Cancer Society, "Cancer Statistics at a Glance," online: <http://www.cancer.ca/en/cancer-information/cancer-101/cancer-statistics-at-a-glance/?region=on>.

⁷ Government of Canada, "Special Topic: Predictions of the future burden of cancer in Canada," *Canadian Cancer Statistics* (2015) online: <http://www.cancer.ca/~media/cancer.ca/CW/cancer%20information/cancer%20101/Canadian%20cancer%20statistics/Canadian-Cancer-Statistics-2015-EN.pdf?la=en>.

⁸ Dietitians of Canada, "Cancer Prevention," online: <https://www.dietitians.ca/Your-Health/Nutrition-A-Z/Cancer-Prevention.aspx>.

⁹ Dietitians of Canada & EatRight Ontario (Government of Ontario), "Lowering your Risk of Cancer: What about Specific Foods?" online: <http://www.eatrightontario.ca/en/Articles/Cancer-/Lowering-your-Risk-of-Cancer-What-about-Specific.aspx>.

¹⁰ Heart and Stroke Foundation, "Healthy Eating," online: <http://www.heartandstroke.ca/get-healthy/healthy-eating>.

¹¹ Heart and Stroke Foundation, "Protein: What, why and how," online: <http://www.heartandstroke.ca/get-healthy/healthy-eating/protein>.

¹² Jean-Eric Tarride et al., "A review of the cost of cardiovascular disease," *Can J Cardiol.* 2009 Jun; 25(6): e195–e202.

¹³ Diabetes Canada, "About Diabetes," online: <https://www.diabetes.ca/about-diabetes>.

¹⁴ Government of Canada, "How To Prevent Type 2 Diabetes," online: <https://www.canada.ca/en/public-health/services/chronic-diseases/diabetes/prevent-type-2-diabetes.html>.

brown rice, vegetables and fruits.”¹⁵ Diabetes is projected to cost the Canadian economy \$13.8 billion annually by 2020.¹⁶

Only 20 to 25 percent of longevity is determined by genes; the rest is lifestyle.¹⁷ Research into the world’s longest-lived peoples (highest proportions of individuals living to 100 years of age and free from chronic diseases) shows that, without exception, health and longevity are associated with plant-based eating. In places where people live the longest and with the best health, legumes are the foundation of diet—meat is only consumed on average five times per month, in portions of only 3 to 4 ounces.¹⁸

Research from Oxford University shows that shifting towards more plant-based diets could reduce global mortality by 6 to 10 percent.¹⁹

Dairy Isn’t Part of Many Cultures’ Cuisines

According to the US National Library of Medicine, a large majority of the human population is lactose intolerant after infancy, especially non-Europeans:

Approximately 65 percent of the human population has a reduced ability to digest lactose after infancy. Lactose intolerance in adulthood is most prevalent in people of East Asian descent, affecting more than 90 percent of adults in some of these communities. Lactose intolerance is also very common in people of West African, Arab, Jewish, Greek, and Italian descent.²⁰

Promoting dairy as a required part of a normal human diet is ethnocentric and does not reflect contemporary Canada’s diverse population. Approximately 1.7 million Canadians identify as Aboriginal, 3.2 million as East and Southeast Asian, and 1.1 million as of African origin.²¹ These Canadians, and others, are largely unable to consume dairy.

¹⁵ Diabetes Canada, “Basic Meal Planning,” online: <https://www.diabetes.ca/diabetes-and-you/healthy-living-resources/diet-nutrition/basic-meal-planning>.

¹⁶ Canadian Diabetes Association, “An economic tsunami: The cost of diabetes in Canada” (2009) online: <https://www.diabetes.ca/CDA/media/documents/publications-and-newsletters/advocacy-reports/economic-tsunami-cost-of-diabetes-in-canada-english.pdf>.

¹⁷ Herskind AM, McGue M, Holm NV, Sørensen TI, Harvald B, Vaupel JW, “The heritability of human longevity: a population-based study of 2872 Danish twin pairs born 1870-1900” *Hum Genet* 1996 Mar; 97(3):319-23.

¹⁸ Dan Buettner for National Geographic, “Reverse Engineering Longevity,” online: <https://bluezones.com/2016/11/power-9/>.

¹⁹ Marco Springmann et al., “Analysis and valuation of the health and climate change cobenefits of dietary change,” *PNAS*, vol. 113 no. 15 (2015).

²⁰ US National Library of Medicine, Genetics Home Reference, “lactose intolerance,” online: <https://ghr.nlm.nih.gov/condition/lactose-intolerance#statistics>.

²¹ Statistics Canada, “Census Profile, 2016 Census,” online: <http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>.

Having a food group titled “dairy and alternatives” suggests that not consuming dairy is abnormal; the word “alternative” is a synonym for “different,” “other,” and “substitute,” thus further marginalizing communities that may already be struggling to find acceptance and belonging.

The Current Food Guide Is Outdated

The current food guide has been ineffective in encouraging Canadians to eat sufficient health-promoting plant-based foods. Research shows this is in part because Canadians find the classification and serving size format difficult to apply in our daily eating habits.²²

In addition, the current food guide has been criticized by health policy experts for inadvertently encouraging over-eating.²³

Canada’s food guide was created at a time when only three percent of families were getting adequate calories, and only seven percent were getting enough protein.²⁴ Today, Canadians are over-consuming both calories and protein;²⁵ 62 percent of men and 46 percent of women are overweight or obese.²⁶ Obesity is linked with many chronic diseases, including hypertension, type 2 diabetes, cardiovascular disease, osteoarthritis and certain types of cancer.²⁷ Obesity costs the Canadian economy between \$4.6 billion and \$7.1 billion per year.²⁸

Canada’s Eating Recommendations Must be Insulated from Industry Influence

The earliest versions of the food guide explicitly had a goal to promote agriculture industries, and this legacy remains in the current version. Meat, dairy, and egg industry lobbyists have

²² Government of Canada, “Evidence Review for Dietary Guidance: Summary of Results and Implications for Canada's Food Guide,” online: <https://www.canada.ca/en/health-canada/services/publications/food-nutrition/evidence-review-dietary-guidance-summary-results-implications-canada-food-guide.html>.

²³ Ann Hui, “Inside the big revamp of Canada's Food Guide,” *Globe and Mail* 18 July 2017, online: <https://www.theglobeandmail.com/news/national/a-taste-of-whats-to-come-inside-the-big-revamp-of-canadas-food-guide/article35728046/>.

²⁴ Daniel Schwartz, “The Politics of Food Guides,” *CBC News*, 30 July 2012, online: <http://www.cbc.ca/news/health/the-politics-of-food-guides-1.1268575>.

²⁵ Meagan Campbell, “The dangers of our protein diet obsession,” *Macleans*, 4 October 2015, online: <http://www.macleans.ca/society/life/the-dangers-of-our-protein-diet-obsession/>.

²⁶ Statistics Canada, “Overweight and obese adults (self-reported), 2014,” online: <https://www.statcan.gc.ca/pub/82-625-x/2015001/article/14185-eng.htm>.

²⁷ Statistics Canada, “Overweight and obese adults (self-reported), 2014,” online: <https://www.statcan.gc.ca/pub/82-625-x/2015001/article/14185-eng.htm>.

²⁸ Public Health Agency of Canada, “Obesity in Canada: A joint report from the Public Health Agency of Canada and the Canadian Institute for Health Information” (2011) online: https://secure.cihi.ca/free_products/Obesity_in_canada_2011_en.pdf.

been successful in influencing the content of food guide revisions.²⁹ Today, Canadians deserve and expect a food guide that is based on nutrition and health evidence.

Health Canada committed to not meeting with industry representatives in the creation of the most recent draft eating recommendations—a historical first that would minimize undue industry influence and maintain public confidence in the process.³⁰

Unfortunately, however, a recent investigation in the *Globe and Mail* showed that Agriculture and Agri-Food Canada (AAFC) has been lobbying Health Canada on industry's behalf. Officials from AAFC warned that, "Messages that encourage a shift toward plant-based sources of protein would have negative implications for the meat and dairy industries."³¹ The short-term economic interests of the meat and dairy industries should not be permitted to trump the health and longevity interests of Canadians.

In fact, researchers at McGill found that over-consuming meat—as Canadians currently are—negatively impacts employment and GDP. In other words, shifting Canadians towards a healthful, more plant-based diet is overall better for our economy.³²

Global Trends

Brazil's dietary guidelines state that, "Natural or minimally processed foods, in great variety, and mainly of plant origin, are the basis for diets that are nutritionally balanced, delicious, culturally appropriate, and supportive of socially and environmentally sustainable food systems."³³ The Brazilian dietary guidelines are widely praised by nutrition policy experts for many reasons, including their focus on eating patterns rather than isolated nutrients and serving sizes, and on encouraging people to choose mostly whole, unprocessed plant foods.³⁴

²⁹ Daniel Schwartz, "The Politics of Food Guides," *CBC News*, 30 July 2012, online: <http://www.cbc.ca/news/health/the-politics-of-food-guides-1.1268575>.

³⁰ Government of Canada, "Evidence Review for Dietary Guidance: Summary of Results and Implications for Canada's Food Guide," online: <https://www.canada.ca/en/health-canada/services/publications/food-nutrition/evidence-review-dietary-guidance-summary-results-implications-canada-food-guide.html>.

³¹ Ann Hui, "'Secret' memos reveal efforts to influence Canada's Food Guide," *Globe and Mail*, 26 October 2017, online: <https://www.theglobeandmail.com/news/national/secret-memos-reveal-efforts-to-influence-canadas-food-guide/article36725482/>.

³² Kakali Mukhopadhyay & Paul J. Thomassin, "Economic impact of adopting a healthy diet in Canada," *J Public Health* (2012) 20:639–652.

³³ Dietary Guidelines for the Brazilian Population 2014 (Portuguese: Guia alimentar para a população brasileira 2014), online: <http://www.fao.org/nutrition/education/food-based-dietary-guidelines/regions/countries/brazil/en/>.

³⁴ E.g. Monteiro CA et al. "Dietary Guidelines to Nourish Humanity and the Planet in the Twenty-First Century: A Blueprint from Brazil," *Public Health Nutr.* 2015 Sep;18(13):2311-22.

Recently, Belgium revised its eating pyramid, emphasizing plant-based foods like fruits, vegetables, whole grains, and legumes. Drinking water is encouraged. Dairy, eggs, fish, and poultry are to be consumed in moderation; red meat, even less.³⁵

According to the World Health Organization, all national dietary recommendations should advise shifting away from saturated fats (found almost exclusively in animal foods) and towards unsaturated fats. National dietary recommendations should also promote increased consumption fruits and vegetables, and legumes, whole grains and nuts.³⁶ This is what Canada's proposed "Guiding Principles and Recommendations" would accomplish.

Summary

- Health Canada has proposed evidence-based eating recommendations, free from food industry influence, that have been praised by nutrition experts.
- The health and longevity of Canadians is currently being compromised by diets too high in animal foods and too low in plant-based foods.
- Lifestyle diseases—including cancer, obesity, heart disease, and type 2 diabetes—cost the Canadian economy tens of billions of dollars annually. These lifestyle diseases can often be prevented and managed through healthy, plant-based eating.
- It is no longer culturally appropriate to include a "dairy" group in our national eating recommendations.
- Food groups and serving sizes are too confusing. Broad eating pattern recommendations are easier to understand and more widely applicable to a diverse population.
- The current food guide may inadvertently be encouraging over-eating and contributing to overweight and obesity.
- Health Canada must be supported in developing evidence-based healthy eating recommendations, free from industry influence or pressure from other federal departments.
- Globally, health authorities are moving towards encouraging more plant-based eating, in line with Health Canada's proposed healthy eating recommendations.

³⁵ Chase Purdy, "The new food pyramid in Belgium sticks meat next to candy and pizza," *Quartz* 29 September 2017, online: <https://qz.com/1090192/the-new-food-pyramid-in-belgium-sticks-meat-next-to-candy-and-pizza/>.

³⁶ World Health Organization, "Global Strategy on Diet, Physical Activity and Health," online: <http://www.who.int/dietphysicalactivity/en/>.