Original qualitative research

The bio-food industry's corporate political activity during Health Canada's revision of Canada's food guide

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Abstract

Introduction: We analyzed the bio-food industry's corporate political activity (CPA) during the revisions of Canada's food guide between 2016 and 2019.

Methods: We undertook a content analysis of the websites of 11 bio-food industry organizations and of the briefs that 10 of them submitted to the Canadian House of Commons Standing Committee on Health, as part of this Committee's review of the food guide. Data were classified according to an existing conceptual framework.

Results: We identified 366 examples of CPA used by the bio-food industry during and immediately after the development of the food guide. Most of the industry actors opposed the guide's recommendations. The most common CPA strategies were information management (n=197), used to create and disseminate information in industry's favour, and discursive strategies (n=108), used to defend food products and promote the industry's position regarding the food guide. Influencing public policy (n=40), by gaining indirect access to policy makers (e.g. through lobbying) and becoming active in government decision-making, as well as coalition management (n=21), by establishing relationships with opinion leaders and health organizations, were also common strategies.

Conclusion: Bio-food industry actors used many different CPA strategies during the revisions of the food guide. It is important to continue to document the bio-food industry's CPA to understand whether and how this is shaping public policy development in Canada and elsewhere.

Keywords: corporate policy activity, commercial determinants of health, bio-food industry, public policy, Canada's food guide, public health

Introduction

Between 2016 and 2019, Health Canada launched revisions of Canada's food guide. The new version encourages people to cook their own food more often, to eat more plant-based foods and reduce their meat consumption, and to limit their intake of highly processed foods. Another major change is the disappearance of the "milk and alternatives" and "meat and alternatives" categories; these are now

less prominently displayed in the new "protein foods" category.² These recommendations, if adopted by Canadians, will affect the profits of certain segments of the bio-food industry,³ that is, the meat, dairy and ultraprocessed foods sectors.

During the development of the food guide, Health Canada permitted public access to useful and relevant health and safety information on its website. Health Canada also decided against meeting with industry

Highlights

- We examined the Canadian bio-food industry's position on the 2019 Canada's food guide and related corporate political activity (CPA).
- Most bio-food industry organizations opposed the 2019 food guide's recommendations to limit highly processed foods and to favour plantbased foods.
- Bio-food industry organizations used many different CPA strategies.
- The most common strategies were to create and disseminate information in favour of the industry, to defend their food products and to promote their position regarding the food guide.
- This research highlights the importance of monitoring industry's attempt to influence public policy development in Canada.

during the development process^{1,4} to avoid conflict of interest and undue corporate influence. Moreover, the academic experts Health Canada engaged during the revision process had no conflicts of interest with the development and revision of the food guide.¹

There is evidence that the bio-food industry interferes with the development of public food policies worldwide through corporate political activity (CPA).⁵⁻¹¹ CPA is defined as the attempts by corporate actors to shape public policy in ways that would protect or expand their markets or favour their industry's interests.⁶ CPA can

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involve instrumental strategies (industry actions) and discursive strategies (industry arguments).⁸ Instrumental strategies include information management, coalition management, legal actions, direct involvement and influence in public policy. The World Health Organization (WHO) expressed concerns that CPA may limit governments' abilities to develop and maintain effective public health policies.^{12,13}

The bio-food industry (along with other players) had the opportunity to participate in the public consultation phases of the revisions. The House of Commons Standing Committee on Health conducted a brief study of the food guide on 9 November 2017. Two meetings were held on 5 December and 12 December later that year. Two additional meetings scheduled for June 2018 were cancelled. Stakeholders were invited to submit briefs mid-2018. The chair of the Standing Committee sent a letter to the Minister of Health regarding this matter in the summer of 2018. The Minister of Health responded in the fall of 2018, prior to the publication of the new food guide.

A case study examined the correspondence and presentations exchanged between Health Canada and industry and non-industry actors after the release of the 2016 Healthy Eating Strategy. ¹⁴ Data for that study were obtained via Health Canada's openness and transparency website, and the study revealed that "industry stakeholders are highly active in their attempts to influence Canadian nutritional policies. "^{14,p,1}

As yet, no study has analyzed the biofood industry's use of CPA strategies during the revisions of national dietary guidelines. The objectives of our research were to (1) study the bio-food industry's CPA during the latest revisions of Canada's food guide; and (2) analyze industry positions concerning the guiding principles proposed by Health Canada during the revisions.

Methods

This single instrumental case study allowed us to conduct a qualitative in-depth analysis of phenomena in their natural context. The issue under consideration was the bio-food industry's use of CPA during Health Canada's revision of Canada's food guide. The bio-food companies that

were studied constituted the units of analysis.

Case study and sample

To develop the food guide, Health Canada reviewed the scientific literature and ran two rounds of public consultations on the items to be considered in the revisions for the Canadian context.1 The first round occurred between 24 October and 8 December 2016 and focussed on the vision for the guide and general considerations. In response to the feedback from this public consultation, Health Canada proposed three guiding principles that would be used to inform future Canadian dietary public policies¹ (Table 1). Input on these three guiding principles was sought during the second round of public consultations held in the summer of 2017.1

In addition, the House of Commons Standing Committee on Health held two sessions on the food guide and accepted briefs written by the bio-food industry and from civil society in 2018. Of the 17 submissions, the 10 from the bio-food industry were selected for this study. The other submissions came from public health or nutrition research organizations. Each industry actor submitted one brief, except for the Dairy Farmers of Canada (DFC), which filed two. The Canadian Juice Council (CJC) filed the longest response (43 pages) and the Fisheries Council of Canada (FCC) the shortest (5 pages). None of these actors were food manufacturers; trade associations representing manufacturers submitted responses on behalf of their corporate members.

We also included another key player to better represent the variety of bio-food industry actors in Canada: the Conseil de la transformation alimentaire du Québec (CTAQ) is a provincial association that represents food manufacturers.

The 11 bio-food industry organizations included in our study are listed in Table 2.

Data collection and analysis

The research team collected data from documents published during and immediately after the revision of the food guide, between October 2016 and March 2019. A single team member (MCR) collected these data from October 2018 to March 2019, that is, until two months after the launch of the food guide. We also continued to analyze the websites of the 11 biofood industry organizations after publication of the food guide in January 2019 to evaluate the effects of the CPA strategies used. Note that we concluded data collection in March 2019 after which date additional data did not significantly contribute to enriching or contradicting our analysis.

We analyzed the content of the briefs written by industry organizations in response to an invitation from the Standing Committee on Health to comment on the food guide recommendations as well as the content of industry websites.16 Websites of the 11 bio-food industry organizations were searched using the general search function and the keywords "Canada food guide" and "guiding principles." The analysis included the industry organizations' comments on the three guiding principles and Health Canada's recommendations. Documents related to other policies, such as front-of-package labelling, were not included in the analysis.

Once the documents were obtained and extracted on a personal computer, a research team member (MCR) analyzed their content according to a framework developed by the International Network for Food and Obesity/Non-Communicable Diseases Research, Monitoring and Action Support (INFORMAS)¹⁷ that has been used in dozens of countries to classify the biofood industry's CPA. 9-11,14,18-27 In this deductive approach to data analysis, we first

TABLE 1
Three guiding principles of the 2019 Canadian food guide

Principle 1	A variety of nutritious foods and beverages is the foundation for healthy eating; Health Canada recommends a regular intake of vegetables, fruit, whole grains and protein-rich foods, especially plant-based sources of protein
Principle 2	Processed or prepared foods and beverages high in sodium, sugars or saturated fat undermine healthy eating
Principle 3	Knowledge and skills are needed to navigate the complex food environment and support healthy eating

TABLE 2 Bio-food industry organizations^a included in our study

Bio-food industry organization	Represented sector		
Canadian Juice Council (CJC)	Juices and beverages		
Canadian Meat Council (CMC)	Meat		
Chicken Farmers of Canada (CFC)	Poultry		
Conseil de la transformation alimentaire du Québec (CTAQ)	Processed foods		
Dairy Farmers of Canada (DFC)	Dairy products		
Dairy Processors Association of Canada (DPAC)	Processed milk products		
Egg Farmers of Canada (EFC)	Eggs		
Fisheries Council of Canada (FCC)	Fish		
Food and Consumer Products of Canada (FCPC)	Processed foods		
National Cattle Feeders' Association (NCFA)	Meat		
Turkey Farmers of Canada (TFC)	Poultry		

^a Of the 17 written briefs submitted to the House of Commons Standing Committee on Health sessions on the food guide, the 10 from the bio-food industry were included in this study. The Conseil de la transformation alimentaire du Québec (CTAQ) was also included to better represent the variety of bio-food industry actors in Canada.

used the framework to code pieces of texts as either instrumental or discursive strategies (Table 3). The CPA strategies were then divided into broad practices, and then into the specific concrete mechanisms through which these practices apply. Each code and the corresponding text were copied and pasted into Microsoft Excel 2019 (Microsoft Corp., Redmond, WA, US). This made it easier to code the material and share it electronically with team members.

To validate the coding, another team member (JCM) reviewed all the information and codes, and proposed changes and revisions as necessary. Finally, the third team member (MM) spot-checked onefifth of the information and applied codes. The level of interrater agreement was 81%. Following this review, the team discussed the points of divergence to finalize the codification. For each document analyzed, we focussed on how the text was constructed, its general content and how the 11 bio-food industry organizations communicated their positions. Next, we matched the pieces of text to each related guiding principle and identified the actors' positions and discourse regarding the principle's recommendations.

There might be an overlap between the different CPA strategies in the framework we used. In some instances, an example of CPA fitted into two categories—a point the framework authors noted.⁶ Research team members reached agreement on categorization after discussion among themselves.

For the second of our two objectives, we identified recurring topics to do with the bio-food industry actors' positions towards each guiding principle, where relevant. We focussed on the content of the messages, and the way the positions were communicated by the actors. Quotations were grouped by guiding principles. In the final analysis, we identified recurring themes corresponding to the position of the actors for each of the guiding principles when this was relevant. One researcher (MCR) selected the quotations, and the other two researchers (MM and JCM) collaborated in the review and revision of the entire analysis.

Ethical considerations

The research protocol was submitted to the Université de Montréal's Health Research Ethics Committee in Quebec, Canada. Because the data used in this research were publicly available, ethics approval was not required.

Results

Bio-food industry's use of CPA

We analyzed 11 written briefs available to the public via the House of Commons website and 13 documents retrieved from the 11 bio-food industry organizations' websites.

In the relevant documents, we identified 366 examples of CPA during the development of the food guide. The most common CPA strategies documented in our

analysis were information management strategy (n=197), discursive strategies (n=108), involvement and influence in public policy (n=40) and coalition management strategy (n=21) (Table 4). The information management strategy represents more than half of the examples identified.

The most common information management CPA practices were the suppression, amplification or production of evidence related to the food guide, for example, by discrediting established scientific data and claiming that some doubt remained regarding a particular topic (Table 5). Gaining indirect access to policy makers (for example, through lobbying) and willingness to become active in government decision-making were common practices in the "involvement and influence in public policy" CPA strategy.

The most common discursive strategy arguments used were those that framed the debate on food and health issues in ways that favoured the industry's interests and those that discussed the economic cost of public policies for the industry. For example, some organizations noted the benefits they generated for the Canadian economy in terms of the number of people employed in their respective industries.

The most frequently observed coalition management strategy practice was the recruitment of third parties or relationship building with opinion leaders and health organizations that advocate for the biofood industry's interests. The practices used were fairly similar across industry sectors, but there was significant variance among some actors in the frequency of specific practices.

The bio-food industry organizations that were most active in their use of CPA were the DFC (n=87; 23.8% of all CPA), the CJC (n=73; 19.9% of all CPA) and the National Cattle Feeders' Association (n=60; 16.4% of all CPA) (Table 5). This is not surprising given that consumption of juices, dairy products and meat would most likely decrease if Canadians adopted the new food guide recommendations, and the associated industry organization may have invested more resources and put greater efforts into their CPA as a result.

TABLE 3
Framework used for analysis of the CPA of the bio-food industry in the context of the Canada's food guide revision process, October 2016–March 2019

	Practices	Mechanisms
Instrume	ental strategies	
	Establish relationships with key opinion leaders and health organizations	Promote public–private interactions with health organizations Support professional organizations, including through funding and/or advertising in their publications Establish informal relationships with key opinion leaders Support the placement of industry-friendly personnel within health organizations
Coalition management	Seek involvement in the community	Undertake corporate philanthropy Support physical activity initiatives Support events (such as for youth or the arts) and community-level initiatives
tion ma	Establish relationships with the media	Establish close relationships with media organizations, journalists and bloggers to facilitate media advocacy
Coali	Constituency fabrication	Establish fake grassroots organizations ('astroturfing') Procure the support of community and business groups to oppose public health measures
	Opposition, fragmentation and destabilization	Discredit public health advocates personally and publicly, e.g. through the media, blogs Infiltrate, monitor the operation and advocacy strategies of public health advocates, groups and organizations Create antagonism between professionals
	Production of information/evidence	Fund research, including through academics, ghost writers, own research institutions and front group
anagement	Amplification of information/evidence	Cherry-pick data that favour the industry, including use of non-peer reviewed or unpublished evidence Participate in and host scientific events Propose industry-sponsored education
Information management	Suppression of information/evidence	Suppress the dissemination of research that does not fit the industry's interests Emphasize disagreement among scientists and focus on doubt in science Criticize evidence and emphasize its complexity and uncertainty
=	Using the credibility of a third party	Fronting: concealing industry links to information/evidence, including through the use of scientists advisers, consultants or spokespersons
nd Iicy	Indirect access to policy makers	Lobby directly and indirectly (through third parties) to influence legislation and regulation so that it favourable to the industry Use the "revolving door," i.e. ex-food industry staff work in government organizations and vice versa
Involvement and influence in policy	Incentives	Fund and provide financial incentives to political parties and policy makers (donations, gifts, entertainment or other financial inducements)
nvolv fluen	Threats	Threaten to withdraw investments if new public health policies are introduced
= <u>=</u>	Active in government decision-making	Seek involvement in working groups, technical groups and advisory groups Provide technical support and advice to policy makers (including consultation)
Legal actions	Use legal action (or the threat thereof) against public policies or opponents	Litigate or threaten to litigate against governments, organizations or individuals
Leg	Influence the development of trade and investment agreements	Influence the development of trade and investment agreements so that clauses favourable to the industry are included (e.g. limited trade restrictions, mechanisms for corporations to sue government
Discursiv	ve strategies	
	Important actor in the economy of the country	Stress the number of jobs supported and the money generated for the economy
	Issues with governance in the process	Demonize the "nanny state"
	Expected cost to the food industry	Policy will lead to reduced sales/jobs Cost of compliance will be high
	Frame the debate on food- and public	Stress the good traits of the food industry Shift the blame away from the food industry and its products, e.g. focus on individual responsibility role of parents, physical inactivity
	health-related issues to favour industry interests	Promote industry's preferred solutions: education, balanced diets, information, public–private initiatives, self-regulation (reformulation)

Source: Mialon et al. (2015)³⁴

Abbreviation: CPA, corporate political activity.

TABLE 4
CPA strategies used by the bio-food industry organizations in the context of the Canada's food guide revision process, October 2016–March 2019

CDA etratadu	Frequency of use in retrieved documents			
CPA strategy	n	%		
Information management	197	53.8		
Discursive strategies	108	29.5		
Involvement and influence in public policy	40	10.9		
Coalition management	21	5.8		
Total	366	100		

The most frequently used CPA practices identified in our study were suppression of information that did not favour the biofood industry (n=98) and amplification of information that the industry agreed with (n=80) (Table 6). Industry actors criticized established scientific data by pointing out their complexity and uncertainty; they suggested that some of the evidence underlying the dietary recommendations needed to be more recent or more relevant or supported by more evidence. For example, in its brief, the trade association Food and Consumer Products

TABLE 5
CPA practices used by bio-food industry organizations in the context of Canada's food guide revision process, October 2016–March 2019

CPA strategy	CPA practice	CFC	TFC	EFC	NCFA	FCC	СМС	DFC	FCPC	DPAC	CJC	CTAQ	Total
nent	Suppression of information/evidence	4	4	3	20	1	10	33	7	2	10	4	98
anagen	Amplification of information/evidence	4	1	1	18	2	4	20	2	5	18	5	80
ation m	Production of information/evidence	-	-	1	2	-	-	6	1	-	5	1	16
Information management	Using the credibility of a third party	-	-	-	1	-	-	2	-	-	-	-	3
													197
gies	Framing the debate on food and public health issues to favour industry interests	2	1	5	7	3	14	6	8	5	6	1	58
Discursive strategies	Expected cost to the industry	1	1	-	2	-	1	4	7	2	16	6	40
iscursiv	Important actor in the economy of the country	-	1	-	-	1	-	1	3	1	2	-	9
Q	Issues with governance in the process	-	-	-	-	-	-	-	-	-	1	-	1
													108
nent ence policy	Indirect access to policy makers	1	-	-	1	-	1	10	4	-	6	-	23
Involvement and influence in public policy	Active in government decision-making	2	-	-	2	-	_	2	4	2	3	2	17
i a ii													40
Coalition management	Third-party recruitment – building relationships with opinion leaders and health organizations	-	-	-	7	-	-	2	-	-	5	-	14
on man	Opposition, fragmentation and destabilization	2	-	-	_	-	-	2	1	-	-	1	6
Coaliti	Building a support network	-	-	-	-	-	-	-	-	-	1	-	1
													21
	Total, n (%)	16 (4.4)	8 (2.2)	10 (2.7)	60 (16.4)	7 (1.9)	31 (8.5)	87 (23.8)	37 (10.1)	17 (4.6)	73 (19.9)	20 (5.5)	366 (100)

Abbreviations: CFC, Chicken Farmers of Canada; CJC, Canadian Juice Council; CMC, Canadian Meat Council; CPA, corporate political activity; CTAQ, Conseil de la transformation alimentaire du Québec; DFC, Dairy Farmers of Canada; DPAC, Dairy Processors Association of Canada; EFC, Egg Farmers of Canada; FCC, Fisheries Council of Canada; FCPC, Food and Consumer Products of Canada; NCFA, National Cattle Feeders' Association; TFC, Turkey Farmers of Canada.

TABLE 6
Frequency of common CPA practices used by bio-food industry organizations in the context of the Canada's food guide revisions, October 2016–March 2019

CDA practico	CDA stratagy	Frequenc	Frequency of use		
CPA practice	CPA strategy	n	%		
Suppression of information/evidence	Information management	98	26.8		
Amplification of information/evidence	Information management	80	21.9		
Framing the debate on food and public health issues to favour industry interests	Discursive strategy	58	15.8		
Expected cost to the industry	Discursive strategy	40	10.9		
Indirect access to policy makers	Involvement and influence in public policy	23	6.3		
Active in government decision-making	Involvement and influence in public policy	17	4.6		
Production of information/evidence	Information management	16	4.4		
Third-party recruitment – building relationships with opinion leaders and health organizations	Coalition management	14	3.8		
Important actor in the economy of the country	Discursive strategy	9	2.5		
Opposition, fragmentation and destabilization	Coalition management	6	1.6		
Using the credibility of a third party	Information management	3	0.8		
Building a support network	Coalition management	1	0.3		
Issues with governance in the process	Discursive strategy	1	0.3		
Total	-	366	100		

of Canada (FCPC) questioned the scientific basis for the recommendations on added sugars. Similarly, the DFC claimed that the proposed reduction in the quantity of dairy products in a healthy diet was not evidence based.

The most frequently observed practice mechanisms were "criticizing established scientific data by highlighting its complexity and its uncertainty" (under the practice of "suppression") and "selecting data favourable to the industry" (under the practice of "amplification"), especially the presentation of inaccurate, distorted or exaggerated information without supporting evidence (Table 7). For instance, the DFC's brief stated "since 2015, the Heart and Stroke Foundation has opposed the idea of setting a threshold or limit for saturated fat and instead argues for a focus on a healthy balanced diet." In fact, the Heart and Stroke Foundation did not oppose the recommendations as the DFC indicated; the Foundation did not specify a threshold or limit for saturated fat, but said that there was a need to focus on the overall quality of our diet to reduce saturated fat intake.28

We found the most frequently used discursive strategies (n = 108) to be "framing the debate on food and public health issues" (n = 58) and "claiming that there

would be costs to the industry" (n = 40)(Table 5). In the context of Health Canada engaging with academic experts as needed during the review process, rather than through a formal expert committee, the bio-food industry questioned the decision to use fully independent experts not tied to commercial interests. In their brief, the Egg Farmers of Canada (EFC) pointed out that "consultation and dialogue with both food producers and health professionals is an important step to ensure a balance of opinions are heard throughout the process." The FCPC argued that it would be a disservice to Canadians if the bio-food industry were not contributing its technical, scientific and dietary expertise to the discussion. The FCPC also questioned the scientific basis for excluding the industry. The Canadian Meat Council (CMC) asked that the food industry be involved in the consultations for the revisions of the food guide because it had extensive expertise in nutrition and science, as well as experience in consumer education. This statement adds to confusion, since CMC did participate in the public online consultations, and was therefore involved in the process, contrary to their claims. In that sense, some bio-food industry organizations defended a vision of public health that differed from Health Canada's approach to policy making. Other actors claimed they had the right to attend the discussions by positioning themselves as experts who were equally qualified as the independent experts that Health Canada consulted.

In addition, the CJC, the DFC, the FCPC and the CTAQ characterized the guiding principles as potentially detrimental to the economy of the country because of how much the implementation of the food guide would cost industry. These organizations expressed their desire to save jobs in their sectors. In its brief, the CJC accused the government of using its power to harm its economic activities, adding that the government created barriers to innovation and industry growth: "The proposed changes would mean that the Government of Canada is using its authority and spending to specifically attempt to damage the Canadian juice industry, when the most recent scientific evidence does not justify such a position."

Analysis of the bio-food industry actors' positions regarding the guiding principles Health Canada proposed for the 2019 food guide

The bio-food industry clearly opposed the proposed approach to the 2019 food guide and the three guiding principles, with each player's position reflecting their specific interests and economic activities. For

TABLE 7
Frequency of specific CPA mechanisms used by bio-food industry organizations in the context of the Canada's food guide revision process, October 2016–March 2019

CPA mechanism	Related CPA strategy	Frequency of use		
CFA IIIEUIAIISIII	neiateu CFA strategy	n	%	
Criticizing established scientific data by highlighting its complexity and uncertainty	Information management	82	22.4	
Selecting industry-friendly data, including unpublished or non-peer reviewed work	Information management	76	20.8	
Promoting solutions preferred by the industry: voluntary initiatives or self-regulation; focusing on energy balance instead of unhealthy diets; education and information instead of talking about the underlining causes of ill health; and public–private partnerships	Discursive strategy	52	14.2	
Claiming that there would be unanticipated costs to public health	Discursive strategy	29	7.9	
Lobbying elected officials directly or indirectly to influence legislation and regulations to benefit the industry	Involvement and influence in public policy	23	6.3	
Funding research, including through researchers, research institutions, ghostwriters and front groups	Information management	17	4.6	
Seeking involvement in working groups, technical groups and advisory groups in government	Involvement and influence in public policy	16	4.4	
Focussing on disagreements between scientists and sowing doubt in science	Information management	14	3.8	
Promoting public–private interactions, especially with public health organizations	Coalition management	12	3.3	
Highlighting the number of jobs and the economic benefits generated by the industry	Discursive strategy	9	2.4	
Claiming that the proposed recommendations will lead to reduced employment or sales	Discursive strategy	9	2.4	
Minimizing the responsibility of the agri-food sector by, for example, placing the blame on a lack of physical activity, arguing for individual responsibility or saying it was the role of parents to ensure good health for their children	Discursive strategy	8	2.2	
Discrediting public health professionals personally and publicly	Information management	5	1.4	
Preventing the dissemination of scientific work that does not serve industry's interests	Information management	4	1.1	
Front: hiding the connections between a piece of information and the industry, including by using paid academics as speakers, consultants or spokespersons	Information management	3	0.8	
Claiming that the cost of implementing the guide will be too high for the industry	Discursive strategy	2	0.5	
Providing technical support and advice to policy makers	Involvement and influence in public policy	1	0.3	
Infiltrating or monitoring the operations and advocacy strategies of public health professionals	Coalition management	1	0.3	
Demonizing government action as paternalist	Discursive strategy	1	0.3	
Obtaining support from community organizations and other industries to oppose public health measures	Coalition management	1	0.3	
Producing and disseminating educational materials funded or developed by the industry	Information management	1	0.3	
Total	-	366	100	

example, the CJC focussed on the recommendations for juices, whereas DFC expressed concern about the role of dairy products in the food guide. Their positions did not align with the concepts underpinning the new dietary guidelines, such as the impact of food choices on the environment; nor did they align with the most recent scientific evidence on which the guidelines are based.

Guiding principle 1

Guiding principle 1 states that consuming a variety of nutritious foods and beverages is the foundation for healthy eating and specifically recommends regularly eating vegetables, fruit, whole grains and protein-rich foods, and especially plant-based sources of proteins. Moreover, although the recommendations are based entirely on health considerations, guiding principle 1 did take into consideration environmental and sustainable development factors.¹

The bio-food industry actors from the meat, egg and dairy sectors criticized the relative prominence of animal proteins in the protein foods group: the National Cattle Feeders' Association highlighted the superior nutritional value of beef over plant-based proteins, while the Egg Farmers of Canada argued that emphasizing protein

sources such as eggs is more important than focussing on plant-based protein sources; the dairy industry objected to the lack of emphasis on milk in the recommendations. The National Cattle Feeders' Association and Chicken Farmers of Canada claimed that plant-based proteins were higher in calories than animal-based proteins, suggesting that following the food guide recommendations would have negative health consequences. Finally, in its brief the DFC stressed that Health Canada must "give appropriate and fair consideration to dairy products, which are in a unique position in relation to the Healthy Eating Strategy and acknowledge that special status."

Industry actors tried to legitimize this position using scientific arguments based on the findings of studies they funded, rather than independent research. When their findings were contradicted, the DFC directly addressed Prime Minister Justin Trudeau and asked that he use his authority and intervene with the Minister of Health, who is responsible for this file.²⁹

Several bio-food industry actors (mainly those in the meat industry) disagreed with the environmental and sustainable development considerations in the guiding principle, with the Turkey Farmers of Canada (TFC) going so far as to request in its brief that "environmental factors be removed."

Additional examples of arguments used by bio-food industry actors against guiding principle 1 are shown in Table 8.

Guiding principle 2

The CJC, the dairy industry, the FCPC and the CTAQ opposed guiding principle 2, which stated that "processed or prepared foods and beverages high in sodium, sugars or saturated fat undermine healthy eating." Dairy industry actors and the FCPC were opposed to Health Canada's recommendation to limit intake of sugar and avoid beverages high in sugars.

The FCPC, the CJC and the CTAO criticized Health Canada's recommendation to avoid 100% pure juice, which effectively put an end to the previous recommendation stating that juice was a direct substitute for whole fruit. In its brief, the FCPC stated that "forcing Canadians to replace 100% fruit juice with fresh fruit would increase Canadians' food costs and ultimately impact the most vulnerable in our society, such as our Indigenous communities." In this example, the FCPC appealed to emotions by referring to vulnerable populations, since they allude to a risk to a part of the Indigenous population, but did not provide evidence supporting its claims.

The CJC maintained that exclusion of juice from the food guide would have consequences on the health of individuals. In its brief, the CJC claimed that the results of scientific studies they shared did not agree with the evidence on which guiding principle 2 was based. However, the CJC did not differentiate between information Health Canada considered valid (i.e. derived from independent scientific consensus)

and information from sources with industry ties, which would oppose guiding principle 2. The CJC also positioned itself as a legitimate and qualified expert on juices, implying that it should be consulted on the topic. Finally, the CJC pointed out that the juice industry were being discriminated against and that the proposed changes to the food guide could deprive it of future subsidies.

The industry sector in charge of processing was the main opponent to the food guide's recommendation to avoid processed food. The FCPC noted: "We are very concerned with the prevailing misperceptions... Health Canada's misunderstanding and a bias towards processed food were demonstrated in their online food guide survey, which further contributed to consumer confusion."

The CTAQ and the FCPC proposed definitions of "processed foods" that opposed Health Canada's definition and research findings on the dietary contribution of processed foods, even after the food guide was released, which may confuse the public. Indeed, following the release of the new guide, the CTAO posted a definition of "processed foods" on its website that contradicts Health Canada's definition and does not align with established scientific consensus. In addition, they did not distinguish these foods based on their type of processing, describing all types of processing (i.e. minimal, ultraprocessed and levels in between) as if they were the same and with the same impacts on health. The FCPC also requested that the House of Commons Standing Committee on Health ensure that the recommendation being put forward by Health Canada did not misrepresent their products.

Various bio-food industry organizations used arguments appealing to emotions, for example, fear and anxiety to stress the potential consequences of limiting the consumption of foods high in salt, sugar (e.g. juices) and fat for vulnerable populations, such as economically vulnerable pregnant or lactating women or middle class families who, because of tight budgets, might not be able to afford fresh fruits and vegetables. For example:

It is simply not reasonable to expect middle class families and those working hard to join the middle class to be able to afford fresh fruits and vegetables that are not locally grown and are often out of season. Health Canada should be working to provide dietary guidance to Canadians that still makes it possible for them to join the middle class and provide nutritious food for their families. (CJC, 2018)

Finally, some industry actors noted that there was no formal interdepartmental coordination of public policy to question the process behind the development of guiding principle 2. The FCPC wanted the Healthy Eating Strategy to complement the work and objectives of the Food Policy for Canada, the Agri-Food Economic Strategy Table and the Agriculture and Agri-Food Canada Food Processing Industry Roundtable. This would have benefited the industry as the agriculture, trade and industry sectors would have had a more prominent role in the food guide revisions, despite any other conflicts with public health.

Additional examples of arguments used by bio-food industry actors against guiding principle 2 are shown in Table 9.

Guiding principle 3

Most bio-food industry organizations supported guiding principle 3 that "knowledge and skills are needed to navigate the complex food environment and support healthy eating." The following excerpt is an example of such support, albeit conditional:

Education is key... This education and communication should be done in collaboration with all stakeholders involved in feeding Canadians in order to have maximum positive impact on our country's consumers. (TFC, 2018)

Only the CTAQ raised concerns about the results of a survey stating that 87% of Canadians wanted their daily lives to be simpler, which the principle may have contradicted. That support is aligned with our findings on CPA described earlier, where bio-food industry actors are keen to support education and provide people with more information.

Additional examples of arguments used by bio-food industry actors against guiding principle 3 are shown in Table 10.

Discussion

This study revealed some of the strategies used by the bio-food industry to try to

TABLE 8
Examples of arguments used by bio-food industry organizations during the Canada's food guide revision process regarding guiding principle 1: A variety of nutritious foods and beverages is the foundation of healthy eating, October 2016–March 2019

Industry actor	Example of argument used	Related CPA strategy / Practice
Turkey Farmers of Canada	"Remove Environmental Factors. In the proposed guiding principles for Canada's food guide, environmental factors have been included. This inclusion of the food environment appears to be beyond the intended scope of the guide. It blurs the Health Canada focus on nutrition and implies that consumers should avoid animal-based proteins, which are needed in a healthy diet There are more appropriate places to capture the importance of environmental and sustainable agricultural practices than in the food guide." (TFC, #22)	Information management / Suppression of information or evidence
Chicken Farmers of Canada	"Researchers have developed several methods for evaluating the quality of food protein; it is measured by its amino acids, its digestibility and how well it meets human needs. Plant-based sources of protein contribute additional carbohydrates and fat to a person's diet, which has an effect on overall caloric intake. For instance, to achieve the same protein as one serving of chicken breast meat (75 g, roasted), one would need to consume (Appendix A):	Information management / Amplification of information or evidence
	 Over 300 g of tofu (2 full 150 g servings, 82 kcal/serving) 3 cups of quinoa (almost six 125 mL servings, 117 kcal/serving) Over half a cup of almonds (3 full 60 mL servings, 208 kcal/serving) Over 350 mL of navy beans (more than 2 full 175 mL portions, 189 kcal/serving) Just under 350 mL of lentils (almost 2 full 175 mL servings, 190 kcal/serving) 	
	The caloric differences alone could contribute to establishing an overall unhealthy weight." (CFC, #11)	
Chicken Farmers of Canada	"There was also significant vegan activist participation and they have been celebrating the updated guiding principles as a great victory." (CFC, $\#\mathcal{I}$)	Information management / Suppression of information or evidence
National Cattle Feeders' Association	"Calorie-for-calorie, beef is more nutrient dense than plant-based proteins such as peanut butter, tofu, or beans. Healthy and lean animal-based proteins are simply not the same as plant-based proteins. Again, we believe that Canada's food guide should be easy and simple to follow, and a focus on food groups maintains this ease of use. People buy foods. People do not buy nutrients." (NCFA, #37)	Information management / Amplification of information or evidence
Egg Farmers of Canada	"When it comes to the revised food guide, our concerns are driven by the unclear positioning of animal and plant-based proteins under the first guiding principle put forward by Health Canada A focus on protein sources like eggs that are nutrientrich is more important than emphasizing plant-based protein food sources alone." (EFC, #26)	Information management / Suppression of information or evidence
Dairy Farmers of Canada	"The direction proposed by the new food guide is not evidence-based and could have further long-lasting consequences on a sector that has already been placed in a difficult position by this government. Dairy Farmers of Canada asks that Prime Minister Trudeau direct the Minister of Health to do her homework by considering and taking into account all available scientific evidence prior to the release of the new food guide. The health of Canadians, and the health of a vibrant Canadian sector, are at stake." (DFC, #241)	Involvement and influence in public policy / Indirect access to policy makers Information management / Suppression of information or evidence
Dairy Farmers of Canada	"These changes to Canada's national health guidelines come at the time when the dairy sector is still reeling from the latest concessions made by the federal government to secure new trade agreements. This would cause further harm to the dairy sector by deliberately diminishing the nutritional value of dairy in the eyes of Canadians—in spite of scientific evidence. Not only will this harm the dairy sector and the hundreds of thousands who depend upon it for their livelihoods, but it also risks harming Canadian consumers by creating confusion about the nutritional value of dairy products." (DFC, #239)	Discursive strategy / Expected cost to the industry
Dairy Processors Association of Canada	"There is no need to vilify players in the agri-food industries who are able to provide valuable scientific information about the possibility of implementing change and offering solutions as colleagues and partners. The lack of communication to date has fuelled speculation and concerns that may or may not be well founded. We hope that those responsible will recognize this situation and correct it." (DPAC, #179)	Involvement and influence in public policy / Active in government decision-making

TABLE 9

Examples of arguments used by bio-food industry organizations during the Canada's food guide revision process regarding guiding principle 2: Processed or prepared foods and beverages high in sodium, sugars or saturated fat undermine healthy eating, October 2016–March 2019

Industry actor	Example of argument used	Related CPA strategy / Practice
Canadian Juice Council	"100% juice is not connected to obesity. Regarding the health of Canadians, the scientific evidence does not support an association between 100% juice and weight status (adiposity) in children aged 2 to 18. As mentioned previously, the research shows that when adults include 100% pure juice as a part of their diet they are often 'leaner, more insulin-sensitive, and have lower odds of obesity and metabolic syndrome.' CJC supports giving Canadians the ability to make choices that contribute to a healthy balanced lifestyle, which means continuing to include 100% pure juice within Canada's dietary guidance regarding fruit and vegetable consumption." (CJC, #203)	Information management / Amplification of information or evidence
Canadian Juice Council	"Unintended consequences of removing 100% pure juice: Fresh fruits and vegetables are among the most expensive food stuffs purchased in Canada, making it very difficult for low-income families to buy enough of them to meet their needs. Combined with Canada's unique environment, this means that access to many fresh fruits and vegetables can vary widely across the country. The consistency in availability of 100% fruit juice gives Canadians access to cost-competitive quality nutrition year-round. As Health Canada itself notes, 'Food choices are not simply a matter of personal choice. There are many interrelated factors that influence our ability to make healthy food choices, including access to and availability of nutritious foods, culture, and the social and physical environment.'" (CJC, # 213)	Information management / Amplification of information or evidence Discursive strategy / Expected cost to the industry
Canadian Juice Council	"The unintended consequences of telling Canadians to avoid 100% pure juice will be magnified for residents of Northern and isolated communities being able to live healthy and balanced lifestyles. This is particularly poignant where the Nutrition North Canada program currently operates, providing improved access to 100% pure juice options that are available in the rest of Canada. In communities where whole fruit and vegetables are rare and expensive, fruit and vegetable juice is considered a critical and cost-effective way of accessing servings of fruit." (CJC, #197)	Information management / Amplification of information or evidence Discursive strategy / Expected cost to the industry
Food and Consumer Products of Canada	"Recommendations for a revised food guide: Give careful consideration to the scientific basis of the sugar recommendations, and provide a clear rationale for any recommendations for Canada. FCPC is concerned about Health Canada's decision that free sugars is considered relevant to dietary guidance based on moderate quality evidence, and no consideration of the Canadian context. The determination of a sugar recommendation needs to be suited to a country's unique requirements, and these requirements depend on many factors such as population age distribution, water fluoridation and other dental health regimes, prevalence of overweight/obesity and quality of the food supply. A 'one-size-fits-all' approach is not appropriate. We therefore recommend that any dietary guidance on sugar be based on a sound and clear rationale for Canada." (FCPC, #158)	Information management / Suppression of information or evidence
Food and Consumer Products of Canada	"We are focused on growing our sector to meet the agri-food export targets identified by the federal government. The goal of increasing exports in our sector by at least \$75 billion annually by 2025 requires a business environment that encourages investment, innovation and growth. The government's approach and policy proposals pertaining to several initiatives in the Healthy Eating Strategy, however, have not been based on adequate consultation with industry or an understanding of the current operating environment." (FCPC, #147)	Discursive strategy / Expected cost to the industry
Dairy Farmers of Canada	"There is no rationale or scientific evidence for targeting total sugars as a nutrient of concern for Canadians, or nutrient-rich foods that contain added sugar such as sweetened milk and yogurt." (DFC, #100)	Information management / Suppression of information or evidence
Le Conseil de la transformation alimentaire du Québec Abbreviation: CPA, corporate	"It is important to note that this new food guide has been revised without the food industry being able to provide any input. One would have to be out of touch not to have seen that all the communications, influences exerted on Health Canada officials—the entire lobby—involved in developing this new guide were done by nutrition and health professionals, by the various interest or pressure groups representing vegetarian and vegan lifestyles, etc. As Mario Dumont mentioned in his January 25 column, only angelic [sic] criteria and public health objectives prevailed. The new Canada's food guide reflects an ideology, a vision of perfect nutrition in a perfect world, based on the values and beliefs of its many authors. It also promotes the concept that anything processed is bad." (CTAQ, #306)	Information management / Suppression of information or evidence Coalition management / Opposition, fragmentation and destabilization

Abbreviation: CPA, corporate political activity.

influence the 2019 Canadian national dietary guidelines. We identified 366 examples of CPA used by 11 bio-food industry actors during the revisions of the food guide.

Our analysis found information management, which involves shaping information to make it more favourable to the industry, to be the most frequently used strategy, with the intent to suppress information the practice that was used the most, for example, by criticizing established scientific data unfavourable to the industry. Discursive strategies were also widely used, particularly in response to the new

TABLE 10

Example of arguments used by bio-food industry organizations during the Canada's food guide revision process regarding guiding principle 3: Knowledge and skills are needed to navigate the complex food environment and support healthy eating, October 2016–March 2019

Industry player	Example of argument used	Related CPA strategy / Practice
Le Conseil de la transformation alimentaire du Québec	"Is it realistic to think that people have more time today—or will spend more time—planning meals for the week, shopping and cooking? A very recent survey conducted by Simplii Financial, a subsidiary of CIBC, reveals that: 'from coast to coast, Canadians agree that it's time to simplify their lives. Whether it's getting rid of clutter, managing their email better or spending less time on routine tasks like laundry or grocery shopping, most Canadians (87%) want their lives to be simpler. Canadians feel their lives are too busy, and in many ways; they want to lighten their tasks to have more fun.' (https://www.newswire.ca/fr/news-releases/moins-c-est-mieux-selon-un-sondage-la-majorite-des-canadiens-souhaitent-simplifier-leur-vie-821556739.html)	Information manage- ment / Amplification of information or evidence Discursive strategy / Expected cost to the industry
	Are meal planning and cooking time considered enjoyable activities for the majority of Canadians? Is it also realistic to think that our older people are ready for such a change? Is advice such as Enjoy a variety of healthy foods every day or Healthy eating is more than just the food you eat enough to guide the consumer?" (CTAQ, #302)	

Abbreviation: CPA, corporate political activity.

guiding principles underpinning the food guide's development.

Our results are consistent with those of Nixon et al.30 who examined the arguments of the food industry, between 2010 and 2012, against regulatory initiatives to curb the obesity epidemic in the USA. The researchers observed that, compared with non-industry players, industry actors attacked the government regulations more often; and the most frequently used defence against government regulations was for the industry to say that "they were part of the solution."30 This type of argument promotes solutions advocated by the industry, such as self-regulation³⁰ and public-private partnerships,³¹ which produce mixed effects and may even slow down efforts to promote and protect healthy diets. When rejecting certain guiding principles and trying to prevent the adoption of recommendations directly targeting their products, one of the arguments used by bio-food industry actors was to exaggerate the cost of the proposed changes, using an alarmist narrative suggesting that the proposed recommendations will fail and that many undesirable health and economic problems will affect the whole of society. Similar arguments were used by the food industry in France in opposition to the development of a mandatory nutrition front-of-package labelling.8 In our study we found that some actors claimed that if the food guide were implemented, it would cause economic loss and ultimately harm society, rather than just the industry. Such arguments can shift the entire narrative away from the problem and prevent the introduction of public policies based on scientific evidence (for example, when the industry pushes for education rather than regulation of their products).

In general, industry actors' responses to the three guiding principles and the associated recommendations of the food guide focussed on their economic activities and products, which were frequently in conflict with the food guide's goal: health. The industries' economic impact analyses did not consider other types of external costs, such as the economic repercussions of ill health on health expenditures and the environmental costs of the consumption of unhealthy diets. 32,33 In particular, the industry sought to promote its own solutions and "frame the debate on food and public health." The arguments usually used by public health advocates—that health problems are complex, the protection of vulnerable populations, and the issue of food insecurity34,35—are also used by industry actors to defend their position. In this respect, our findings are consistent with those of Petticrew et al.,36 who reported that the food, beverage and gambling industries used "complexity" arguments to influence public opinion and policy makers and paralyze discussions. Our findings are also consistent with those of Vandenbrink et al., 14 who showed that the Canadian food industry uses CPA to influence food and nutrition policies like those reported internationally.^{8,14} Indeed, there are striking similarities in the practices used by the bio-food industry across countries to undermine public policies.

There are also many similarities with the strategies used by the tobacco and alcohol industries. These industry players have been known to distort public health recommendations to achieve their objectives, namely, protecting or increasing their profits.³⁷ Similarly, bio-food companies use science as a communication tool to obstruct public action, confuse the public

and establish credibility.³⁸ We frequently observed these practices in our case study: Some of the arguments that the industry submitted in their briefs and posted on their websites included industry-sponsored or non-peer-reviewed evidence. There were also instances where the evidence was inaccurate, distorted, exaggerated or omitted.³⁸

The introduction of Health Canada's new measures to mitigate conflicts of interest and its new policy on transparency made the interventions of the bio-food industry more visible. These measures are recommended by the Lancet Global Syndemic Commission and by WHO to improve governance for the public good and address power asymmetries in the food system.^{39,40} In addition, the United Nations and WHO noted that bio-food actors must support public health efforts-not oppose themto address the climate crisis and the noncommunicable disease epidemic.40-42 Never theless, although Health Canada had decided not to meet with industry during the revision process, industry actors were still able to submit their written briefs during the public consultations and on their websites, indicating that the industry's tactics to influence are an ongoing and complex challenge that can only be limited through surveillance of political activities in order to better protect and focus the development of public policies.

Strengths and limitations

This study contributes to the advancement of knowledge in the field of CPA and commercial determinants of health. Its topic is a relevant and relatively unexplored theme in public health nutrition literature. However, we focussed only on publicly available data on the bio-food industry organizations' websites and written documents of

those bio-food industry actors who submitted briefs to the House of Commons Standing Committee on Health in response to the Committee's invitation. As such, our assessment does not include information on political campaign donations and other forms of lobbying that also affect policy making in the short and long term.¹⁴

Neither the bio-food industry organizations, nor their corporate members, were contacted to provide additional information or to verify the data we collected. Also, we did not distinguish between the characteristics of the industry organizations, such as the size or financial positions of the companies they represented. Still, we took into account all the actors with sufficient resources to become involved in the public debate on the food guide, and in that sense, did not exclude anyone.

Finally, it may be difficult to generalize the results of our study because the work is based only on a small number of industry actors in a specific context. ¹⁵ However, our results are similar to those obtained in other countries, as noted earlier, which increases our confidence in our interpretation of the data. ⁶

Conclusion

Public policies must be based on evidence and robust guiding principles without the influence of commercial interests—a challenge that is internationally recognized and to which the Canadian government has responded. Our study shows that the bio-food industry in Canada uses CPA to try to influence policies in their favour. This issue is of considerable importance given than other Canadian public policies, such as food advertising regulations, may have been delayed by the bio-food industry's CPA.14 It is important to ensure oversight of CPA to maintain public trust in decision-making bodies. Public policies' independence and scientific rigour are the main issues at stake here.

Conflicts of interest

The authors declare that they have no conflicts of interest to report.

Authors' contributions and statement

MCR – Conceptualization, data curation, formal analysis, writing – original draft.

MM – Conceptualization, formal analysis, writing – review & editing, supervision.

JCM – Conceptualization, formal analysis, writing – review & editing, supervision.

The content and views expressed in this article are those of the authors and do not necessarily reflect those of the Government of Canada.

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