La Revue canadienne des études sur l'alimentation

Canadian Food Studies

the journal of the Canadian Association for Food Studies
la revue de l'Association canadienne des études sur l'alimentation

Vol 8 No 2 (2021):

FLEdGE Partnership

canadianfoodstudies.ca
c/o Department of Health Sciences
Lakehead University
955 Oliver Road
Thunder Bay (ON) P7B 5E1

ISSN: 2292-3071

IN THIS ISSUE

EDITORIAL

FLEdGE (Food: Locally Embedded, Globally Engaged) Partnership
Alison Blay-Palmer

PERSPECTIVE

Linking Fisheries Policy to Sustainable Diets: The Case of Lake Superior
Kristen Lowitt

RESEARCH ARTICLES

Modularity in Intersectoral Research/Action Collaborations for Food Systems Transformation:
Lessons from the FLEdGE Community-Engaged Network Lessons from the FLEdGE Community-Engaged Research Collaborative
Charles Z. Levkoe, Alison Blay-Palmer, Irena Knezevic, David Szanto, Nii A. Addy

Mapping Food Policy Groups Understanding Cross-Sectoral Network Building through Social Network Analysis
Charles Z. Levkoe, Rebecca Schiff, Karen Arnold, Ashley Wilkinson, Karen Kerk

Meaning as Motivator to Address Distancing in the Food System
Karen Rideout

Moving Your Body, Soul, and Heart to Share and Harvest Food: Food Systems Education for Youth and Indigenous Food Sovereignty in Garden Hill First Nation, Manitoba
Kaylee Michnik, Shirley Thompson, Byron Beardy

Working for Justice in Food Systems on Stolen Land? Interrogating Food Movements Confronting Settler Colonialism
Michaela Bohunicky, Charles Z. Levkoe, Nick Rose

Growing With Lady Flower Gardens: Governance in a Land-based Initiative Focused on Building Community, Well-being and Social Equity Through Food
Ashley M. Roszko, Mary A. Beckie

Integrative Governance for Ecological Public Health: An Analysis of 'Food Policy for Canada' (2015-2019)
Peter Andrée, Patricia Ballamingie, Mary Coulas

REVIEW ARTICLE

On the Front Lines in Food Policy Assessing the Role of Neighbourhoods for Food Systems Transformation in the Montreal Food Polity
Anna-Liisa Aunio, Laurette Dubé

The Food: Locally Embedded, Globally Engaged (FLEdGE) SSHRC-funded Partnership has deep roots in relationships developed over time among academics and community-based practitioners. FLEdGE emerged from community-driven research in Ontario on food hubs and community resilience dating from 2010. From there it expanded to include seven research nodes across Canada and three thematic international working groups, with over 90 researchers, students, and community partners involved in the project. This themed section’s nine papers provide an opportunity to reflect on and question the Good Food Principles, the co-evolution of the food landscape in Canada and accompanying research.

guest editor: Alison Blay-Palmer

Published: 2021-08-05
photo: Alexia Moyer

Vol. 8 No. 2, pp. 1-5 August 2021

Canadian Food Studies
La Revue canadienne des
études sur l'alimentation

Editorial

FLEdGE (Food: Locally Embedded, Globally Engaged) Partnership

Alison Blay-Palmer*

Wilfred Laurier University

The Food: Locally Embedded, Globally Engaged (FLEdGE) SSHRC-funded Partnership has deep roots in relationships developed over time among academics and community-based practitioners. FLEdGE emerged from community-driven research in Ontario on food hubs and community resilience dating from 2010. From there it expanded to include seven research nodes across Canada and three thematic international working groups, with over 90 researchers, students, and community partners involved in the project. As a multi-institutional project, FLEdGE has nodes in British Columbia (Kwantlen Polytechnic University)/Alberta (University of Alberta), Northwest Territories (Wilfrid Laurier University), northern Ontario (Lakehead University), eastern Ontario (Carleton University), southern Ontario (Wilfrid Laurier University; University of Guelph; University of Waterloo); Quebec (McGill University; Dawson College); and Atlantic Canada (Dalhousie University; Carleton University). There are two or more lead researchers in each node, typically from different disciplines and several community partners in each node. In this way, FLEdGE branched out to include more than 90 partners and collaborators.

The nature of FLEdGE as a modular configuration of community-defined projects meant that each node engaged in different work that shared the common goal of building increasingly equitable and sustainable food systems.

FLEdGE was guided by our Good Food Principles. While the Good Food Principles were always an assumed part of the research, the lead researchers from each of the nodes came together in Montreal in 2018 to define the principles to guide the second half of the project. Given the distributed nature of FLEdGE—where nodes had the autonomy to define the work according to their community needs—the principles were a way to help us identify and better communicate the synergies and higher-level findings of this work.

*Corresponding author: ablaypalmer@wlu.ca
DOI: 10.15353/cfs-rcea.v8i2.539
ISSN: 2292-3071

They are an evolving tool that help us to speak to the project in plain and accessible language. Extracted directly from our website with updated additions in bold, italicized text. They are defined by category as:

Farmer Livelihoods

We need to help the people who produce our food adapt to changing economies by co-creating new opportunities for training, accessing capital ***and land***, and connecting with **eaters**.

Food Access

We need to work together with people along the values chain to make local, healthy, and culturally appropriate food ~~more~~ accessible to everyone.

Indigenous Foodways

We need to support **self-determination, land-back and** Indigenous food sovereignty by safeguarding Traditional foodways that rely on the health of the land, ***biodiversity*** and intergenerational knowledge-sharing supported by ***scale-appropriate*** technologies, capacity, and infrastructure.

Ecological Resilience

We need to encourage **agro**ecological farming because it supports diverse ecosystems and communities by regenerating ***and protecting*** the natural environment.

Food Policy

We need good food policy that **creates the conditions for** cross-cultural collaboration, ***respects and protects the right to food at*** all levels of government and reflects the needs of people ***including groups that are marginalized based on gender, class, race, age, ability and Indigeneity*** and their communities.

Food Connects

We support community-driven research as a way of connecting people and food from ***the unique foodscapes where they eat and live.***

Building sustainable food communities ***for all people living in Canada***.

As noted through the additions, the Good Food Principles evolve to reflect food systems practice and theory (FLEdGE, 2021: np).

As we share what we have learned in the final stages of the project, our focus has shifted to knowledge mobilization. Along with three edited volumes and many peer-reviewed papers, a key achievement is the podcast series, 'Handpicked: Stories from the Field', which has featured the voices of several FLEdGE researchers and will continue to feature FLEdGE work beyond the end of the project. One of the interesting things about FLEdGE is that, while the project was highly productive in terms of publications (including those published *by* and *with* students and community partners) we have also hosted several webinars (on the Good Food Principles) and large in-person meetings and created tools and resources that are publicly accessible on our website. To reflect the story of the project and capture all of that work so that it remains in the public domain, we are building a comprehensive online archive that will be accessible beyond the life of the project—to be maintained by the Laurier Centre for Sustainable Food Systems. As we imagine and build the FLEdGE archive, the Good Food Principles will help us organize and tell the story of FLEdGE research outputs.

This Special Issue—along with the Special Issue on the Social Economy—are vital contributions as they draw on and bring together many of the goals and research projects closely or loosely connected to FLEdGE. Thanks to the many contributors, and Alyson Jaagumagi Holland and the amazing *Canadian Food Studies* team, for making this Special Issue possible.

Overview of papers

In total there are nine papers in this themed section that capture various features of the Good Food Principles. It begins with Lowitt, a Perspective paper that connects food policy and food access. Titled 'Linking fisheries policy to sustainable diets: The case of Lake Superior', this paper centres fisheries as important sites of local food security. By applying a sustainable diets lens to fisheries on Lake Superior, the author provides insights into how policy can be more supportive.

In the second paper by Levkoe, Blay-Palmer, Knezevic, Szanto and Addy, titled 'Modularity in intersectoral research/action collaborations for food systems transformation: Lessons from the FLEdGE community-engaged network', we learn about ways that the FLEdGE network fostered food connections and some of the limitations throughout its tenure. Using a Social Network Analysis of FLEdGE, the authors found that in addition to adding to theory and practice, FLEdGE contributed to food movements in Canada and beyond. Through a modular approach, research nodes operated both independently while also sharing commonalities that fostered reconfigurations in flexible and fluid ways founded in interdisciplinarity, collaborative methodologies, and critical reflexivity.

The third paper 'Mapping food policy groups: Understanding cross-sectoral network building through social network analysis' by Levkoe, Schiff, Arnold, Wilkinson, and Kerk assesses the extent to which the Thunder Bay and Area Food Strategy – as an example of a Food Policy Group – was able to integrate approaches to food policy, programs and planning. Using Social Network Analysis, their results suggest that this type of analysis both improves how we understand networks and supports cross-sectoral integration.

The fourth paper 'Meaning a motivator to address distancing in the food system' by Rideout uses research in India and Canada to explore food as important to relationships, soulful connections, and the sense of interconnectivity between all things. In turn, this evokes an awareness of bigger issues, a predisposition for an ethic of care, that leads to action or change. These findings are especially relevant as an opportunity to use the intrinsic value of food to inform public health policies. Both these papers look at food as a connector and an enabler of change.

The next two papers provide insights into Indigenous foodways and partnerships. In the first paper in this theme 'Moving your body, soul, and heart to share and harvest food': Food systems education for youth and Indigenous food sovereignty in Garden Hill First Nation, Manitoba authors Michnik, Thompson and Beardy propose an Indigenous food education programme grounded in traditional and spiritual beliefs, land-based learning, and self-determination. Insights based on their interviews with young adults, Elders, community food educators and Knowledge Keepers guide their recommendations on how to support community-based, Indigenous food systems, including sovereignty. Supportive policies are needed that include how technology effects culture, the need for financial stability in northern and remote communities, and gender equality, while the educational programmes themselves need to be defined in their communities and focused on practice. The second paper, 'Working for justice in food systems on stolen land? Interrogating food movements confronting settler colonialism' by Bohunikcy, Levkoe and Rose, three settler activist-scholars, questions whether/how settler-led social movements are being accountable in working towards social and ecological justice on stolen land. Using comparative research interviews with settler-led food movement organizations in Northwestern Ontario and Southern Australia, they propose a continuum for food movements to deepen their engagements to confront settler colonialism that can move food systems towards more genuinely equitable and sustainable food systems.

The following paper by Roszko and Beckie, 'Growing with Lady Flower Gardens: Governance in a land-based initiative focused on building community, well-being and social equity through food' focuses our attention on how a privately owned community garden grapples with inclusiveness, social equity, and affordability. Through this case study of Lady Flower Gardens in Edmonton, they demonstrate the growth and change in approach and governance using the Policy Arrangement Approach. Through capacity-building with marginalized and disadvantaged community members, food is grown both for personal and community consumption improving food access, ecological resilience, and improved farmer livelihoods. The paper by André, Ballamingie and Coulas, presents in-depth findings into the Food Policy for

Canada as an example of public policy to address food and nutrition-related health challenges. The paper concludes that while progress has been made, an integrative systems-based approach to problem-solving is still needed. The final paper also explores policy, this time in Montreal where Aunio and Dubé apply design-based implementation research to understand three different food policy collaborative city initiatives and the challenges they face as they strive to address food insecurity in their communities. The research demonstrates the role that historical pathways, old and new norms, path dependency, structures, capacity and international engagement in shaping policy and planning.

This themed section provides an opportunity to reflect on and question the Good Food Principles, the co-evolution of the food landscape in Canada and accompanying research. We are extremely grateful to all our amazing community partners and the students who made this work possible.

Acknowledgements: Nii Addy, Peter André, Anna-Liisa Aunio, Patricia Ballamingie, Mary Beckie, Alison Blay-Palmer, Mary Coulas, Amanda Di Battista, Laurette Dubé, Irena Knezevic, Karen Landman, Charles Levkoe, Catherine Mah, Phil Mount, Kent Mullinix, Connie Nelson, Erin Nelson, Heather Reid, Theresa Schumilas, Kelly Skinner, Andrew Spring, David Szanto, and Laine Young.

Funder acknowledgement: We are grateful to the Social Sciences Humanities Research Council (SSHRC) of Canada for its outstanding support for our work through its Partnership Grant 895-2015-1016.)

Vol. 8 No. 2, pp. 6–17 August 2021

Canadian Food Studies La Revue canadienne des études sur l'alimentation

Perspective

Linking fisheries policy to sustainable diets: The case of Lake Superior

Kristen Lowitt[a*]

[a] Queens University

Abstract

The contribution of fisheries to food systems are largely absent from conceptions of sustainable food systems. At the root of this problem is that fisheries are often seen in terms of maximizing economic efficiency rather than local food security. This perspective piece engages with sustainable diets as a framework for linking fisheries policy with broader food systems considerations asking, how would fisheries policy be different if fisheries were governed with sustainable diets in mind? My discussion is oriented around the case of Lake Superior, the largest freshwater lake in the world and home to commercial, recreational, and Indigenous fisheries. I review the key policies and legislative frameworks influencing the region's fisheries from a sustainable diet lens to put forward some recommendations for how policy change in support of sustainable diets may be fostered.

Keywords: Small-scale fisheries; food policy

*Corresponding author: kristen.lowitt@queensu.ca

DOI: 10.15353/cfs-rcea.v8i2.449
ISSN: 2292-3071

Introduction

Small-scale fisheries play a vital role in the cultures, health, and livelihoods of fishing-dependent communities around the world, including Global North contexts (FAO, 2015; Loring et al., 2013; Lowitt, 2013). Nonetheless, within the sustainable food systems literature, the contribution of fisheries are often overlooked. As Seto & Fiorella (2017) write, "resources that originate in our oceans, rivers, and lakes are almost entirely omitted in our conceptions of a sustainable food system" (p. 1). In Canada, this is evident in the new Food Policy for Canada. While this Policy recognizes the need for a more integrated approach to food systems, it remains very agriculture centered, as seen in the tag line "a strong agriculture and agri-food sector contributes to economic growth, better nutrition and improved lives for families." At the root of this problem is that fisheries are often seen in terms of maximizing economic efficiency rather than local food security (Fisher et al., 2017; Love et al., 2017). This "resourcist" view (Berkes, 2010) privileges the interests of industrialized, large-scale fleets over those of small-scale harvesters that contribute directly to community well-being, including food needs (Loring et al., 2019). A similar trend is seen in agricultural systems (Hendrickson, 2014; Clapp, 2018). The Good Food Principles emerging from the scholarship and practice of the FLEdGE research team are as relevant to small-scale fisheries as the agricultural sector. The Good Food Principles emphasizing ecological diversity, regional economies, and food as a connector of people and communities may help re-envision the way fisheries are typically understood by shifting the perspective from fish as a commodity towards fish as a part of place-based, sustainable food systems.

This paper engages with the specific framework of sustainable diets as a way of linking fisheries policy and food systems considerations, asking, how may fisheries policy be different if fisheries were governed with sustainable diets in mind? I orient my discussion around the case of Lake Superior, the largest freshwater lake in the world and home to commercial, Indigenous, and recreational fisheries. Adopting a sustainable diets lens, I analyze the key policies and legislative frameworks influencing the region's fisheries to consider how policy change in support of sustainable diets may be fostered.

Sustainable diets

Sustainable diets seek to link biodiversity with human health and nutrition outcomes; the concept is based in the fundamental premise that the health of people cannot be isolated from the health of ecosystems. The 2010 FAO Biodiversity and Sustainable Diets symposium defines sustainable diets as, "…those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations.

Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources" (Burlingame, Derini, & FAO, 2010).

The Western diet that has spread around the world has been widely critiqued for initiating and perpetuating diet-related diseases, environmental degradation, and poor outcomes for livelihoods in the food system (Hawkes et al., 2012). This has spurred efforts towards sustainable diets that are more diverse and based in regional biodiversity and socio-cultural contexts (Burlingame, Derini, & FAO, 2010). In the case of fisheries, this will require adjustments in fish consumption in different regions to correspond with the health and state of fish stocks. The concept of sustainable diets is based in a food systems perspective which recognizes that the harvesting, production, processing, retail, consumption and waste of food, along with associated policies and decision-making structures, interact to shape ecological and human health outcomes (Tansey & Worsley, 1995).

Achieving sustainable diets depends on supportive policy and governance. This requires analyzing existing food systems to identify the changes needed to support the diversity of foods needed for human health while minimizing environmental impacts and supporting local cultures and livelihoods (FAO & WHO, 2019). Policy coordination across sectors and scales is key so that the effects of policies on different facets of sustainability can be assessed and alignment in food system goals and strategies can be achieved (FAO & WHO, 2019). In what follows, I look at the example of Lake Superior to explore the connections among sustainable diets and fisheries policy in this region.

Sustainable diets and fisheries: The case of Lake Superior

Lake Superior (*Anishinabe Gichgamiing* in Anishinaabemowin) is the largest and northernmost of the five Great Lakes of North America. It is the traditional homeland of the Anishinaabe peoples, including people known as Algonquin, Chippewa, Ojibwe, Mississauga, Potawatomi and Ottawa or Odawa (Bohaker, 2006). Jurisdictionally, Lake Superior is divided among the Canadian and U.S. federal governments, the Canadian province of Ontario, three U.S. states, and the traditional territories of approximately 120 First Nations and Indian tribes.

This piece focuses on the Canadian waters of Lake Superior. The Lake is closely tied to the economy and society of the surrounding region, including for drinking water, recreation, transportation, and food. First Nations have relied on Lake Superior fisheries for food and trade long before contact with European settlers and are increasingly asserting their rights to fish. The Lake supports a diversity of wildlife including over 30 native species of fish (Lake Superior Lakewide Action and Management Plan - Superior Work Group, 2013; Minnesota Sea Grant, 2014).

For much of the twentieth century, a combination of overfishing, resource development, and commercial trade placed pressure on Lake Superior fisheries.

While there is still stress on the ecosystem, fish populations in Lake Superior have begun to recover since the 1980s mainly due to government-led efforts to enhance water quality and control invasive species (Lowitt. Levkoe, & Nelson, 2019, 2019; Spooner, 2014). In addition to efforts by provincial, federal, and Indigenous governments, trans-national bodies were established to deal with environmental and fisheries management concerns including the International Joint Commission and the Great Lakes Fishery Commission.

Today, Lake Superior contains commercial, recreational, and Indigenous fisheries. Fish is a culturally appropriate food in the region in which fresh meats and vegetables have traditionally been less available (Ontario Nature, 2014). The main commercial catches are lake whitefish, lake herring, and lake trout. While some fish stays within the region (particularly on northeastern Lake Superior where a sizeable Indigenous fishery supports household and regional markets), much of the catch from Canadian waters is exported to markets in the United States (Lowitt et al., 2019a). Over the last several decades, processing and infrastructure along the Ontario shore of Lake Superior has become more consolidated while fish harvesters receive prices for fish that generally do not keep up with increasing costs for fishing inputs, licensing, and quota (Lowitt et al., 2019a). This makes it particularly pressing to understand how fisheries policy might be reoriented in support of sustainable diets that can better meet regional food system needs.

Table 1 provides an overview of the key public policies and legislation governing Lake Superior fisheries. From a sustainable diet lens, this includes agencies and associated policy and legislation across the fisheries-based food system from harvesting and management to consumption. Key policies and legislative frameworks were identified through an analysis of websites of provincial, federal, and Indigenous organizations and governments and reading literature. The table is organized according to level of jurisdiction (trans-national, federal, provincial) with the final column summarizing the links to sustainable diets based on a document review. This analysis focuses primarily on settler policies and institutions; in terms of Indigenous fisheries, additional policies exist at a community level, but these tend to be unpublished and are not included in this paper. This is an area that warrants further case study research (*see* Lowitt, Levkoe, Lauzon, Ryan, & Sayers,2019).

Table 1: Fisheries legislation/policy and links to sustainable diets

Agency	Policy/legislation/plans/ guidance	Purpose	Link to sustainable diets
TRANSNATIONAL			
Great Lakes Fishery Commission (Binational)	Joint Strategic Plan for the Management of Great Lakes Fisheries	A Plan to ensure coordinated action among fisheries management agencies across Canada / U.S. management agencies.	Recognizes wholesome food as a social benefit tied to fisheries.
International Joint Commission (Binational)	Great Lakes Water Quality Agreement	A framework for binational consultation and action to restore, protect and enhance the water quality of the Great Lakes and promote the ecological health of the basin.	Asserts that the Great Lakes should be free of pollutants harmful to human health, including from fish consumption.
Tribal and First Nation signatories	Tribal and First Nations Great Lakes Water Accord	To assert that any government effort to protect the Great Lakes must involve full participation by Tribes and First Nation who also agree to work together to secure a healthy future for the Great Lakes.	No specific mention of food systems; however, recognizes the health of the Great Lakes ecosystem as interconnected with Indigenous wellbeing and self-determination.
FEDERAL			
Aboriginal and Treaty rights	Aboriginal and Treaty rights are affirmed in Section 35 of the Constitution Act, 1982. The main Treaties in the Lake Superior region are the Robinson Treaties and Treaty 9.	Lay out Nation to Nation relationships and the fiduciary responsibility of the Crown.	First Nations are asserting Aboriginal and Treaty rights to fish for subsistence and commercial use.
Fisheries and Oceans Canada	Canada Fisheries Act	Provide a framework for the proper management of fisheries. First established in 1867. Delegates authority to manage inland fisheries to the provinces.	No specific mention of food systems; however, social, economic, and cultural factors are included as considerations for decision-making.
Canadian Food Inspection Agency	Fish Inspection Regulations (under the Fish Inspection Act)	Set standards for acceptable quality, safety and identity of fish and	Concerned with the quality, safety, and labelling of fish for consumption.

		seafood products. Applies to fish processed in federal establishments for interprovincial or export trade or that are imported into Canada.	
	Food and Drugs Regulations (under the Food and Drugs) Act	Enforce health and safety standards for all food and drugs. Applies to fish and fish products destined for inter and intra provincial trade.	Concerned with nutrition, health, and safety of food, including fish.
	Safe Food for Canadians Act	Enforce labelling requirements for prepackaged consumer goods. Applies to fish and fish products import, export, and inter provincial trade.	Concerned with appropriate food labelling, including for fish.
Health Canada	Canada's Food Guides	Provide recommendations on how much and what types of food should be eaten as part of a healthy diet.	Concerned with helping Canadians make healthy food choices, including fish. Does not consider Indigenous diets.
PROVINCIAL			
Ontario Ministry of Natural Resources and Fisheries	Ontario Fishery Regulations (annexed to the federal Fisheries Act).	Focus on the sustainable conservation and harvesting of fish. First established 1898.	No mention of food but regulations may influence fish access and availability.
Ontario Ministry of Natural Resources and Fisheries	Ontario Provincial Fish Strategy: Fish for the future	Strategy for managing Ontario's commercial, recreational, and Aboriginal fisheries (under the authority of the Ontario Fishery Regulations).	Recognizes fishing as an activity that supports the nutritional needs of communities and individuals in Ontario.
Ontario Ministry of Natural Resources and Fisheries	Regulation 664 Fish Licensing (under the Fish and Wildlife Conservation Act)	Sets licensing requirements for commercial and recreational fishing.	No mention of food but lays out licensing requirements that may influence access to fish for food.
Ontario Ministry of Natural Resources and Fisheries	Ontario Fish Inspection Act	Set the standards of fish processing. Applies to non-federally registered fish processors distributing within the province.	Concerned with ensuring safe fish for human consumption.
Ontario Ministry of Agriculture Food and	Food Safety and Quality Act	Establish standards for food safety and quality.	Fish regulated as a food under this Act.

Rural Affairs (provincial)			
Ministry of Health and Long-Term Care	Health Protection and Promotion Act	To promote and protect the health of people in Ontario.	Concerned with multiple facets of public health, including upholding public health standards in food premises and reducing chronic disease.
Ministry of the Environment, Conservation, and Parks	Eating Ontario Fish Guidelines	Offer consumption advice for fish from Ontario lakes and rivers based on contaminant levels for fisheries.	Concerned with safe fish consumption.

As seen in Table 1, numerous policies and legislative frameworks, located in various agencies and at different levels of jurisdiction, impact fisheries and their role in sustainable diets. Some of these policies directly influence fisheries in the region (e.g. setting regulations for harvesting) while others, such as policies for public health, are more distal such as through influencing consumer purchasing and utilization of fish. Overall, these can be placed into two broad categories: those dealing with fisheries management (including regulations for the conservation and harvesting of fish) and those dealing with some aspect of fish for consumption after it has been landed, including safety, nutrition, quality, and labelling.

The Ontario Ministry of Natural Resources and Forestry (OMNRF) is the settler government agency with primary authority for fisheries management on Lake Superior. Ontario is expected to coordinate its activities with bi-national bodies, such as the Great Lakes Fishery Commission, to address transborder issues. Aboriginal and Treaty rights add another layer to this jurisdictional complexity. Many fisheries management policies make some reference to food. For example, the Ontario Provincial Fish Strategy identifies nutritional needs for individuals and communities in Ontario as a priority; it also identifies a trend towards healthy and local food as an opportunity for engaging a greater diversity of people with an interest in fisheries and their management. Likewise, transnational agreements, such as the Joint Strategic Plan for the Management of Great Lake Fisheries and the Great Lakes Water Quality Agreement recognizes a key social benefit tied to fisheries is as a source of food. Further, many of these policies emphasize sustainable fisheries, in terms of ecosystem health and ensuring that Lake Superior fisheries are sufficiently protected for future generations to enjoy.

However, while management policies may refer to food, the emphasis is on managing fish for conservation and economic benefit, with a food systems perspective missing. As evidence of this, there is no reference in management policies to the downstream stages and policies associated with fish consumption. Here, a different set of policies and legislative frameworks take over including provincial and federal ministries in the areas of health, food, and agriculture dealing with various aspects of processing, safety, quality, labelling, and health.

These policies conversely operate in isolation from the management and ecological context of fisheries. An exception is the Eating Ontario Fish Guidelines for recreational fishers which provides information about fishing locations, types of fish, contaminant levels, and consumption recommendations.

The lack of integration between fisheries management policies and those dealing with fish for consumption has been identified in other studies of North American fisheries (*see* Love et al., 2017) and addressing this is key to retooling policy for sustainable diets. Because of this gap, food systems connections are often overlooked or, worse, policies may function at cross-purposes. A good example is the impact of harvesting regulations on access to fish for food. Lake Superior commercial fisheries are managed using Individual Transfer Quotas (ITQs)[1] under the Ontario Fishery Regulations. While ITQs have been widely critiqued for concentrating wealth in fisheries (Pinkerton, 2013), there is also evidence in the case of Lake Superior that ITQs are leading to nutritious fish being shipped out of the region into large markets in the US where it is used as low-quality protein and processed into gefilte fish (Lowitt et al., 2019a). Despite reference to "wholesome food" as a benefit to Ontarians in the Provincial Fish Strategy, such benefits are unlikely to be realized until management policies are assessed to consider their impacts on downstream stages of the food system.

Conversely, policies related to health and fish consumption should operate in closer coordination with fisheries management objectives. For example, Canada's Food Guide does not offer advice on the origin of foods to eat, simply saying "refer to food labels." Labelling requirements for fish destined for export and inter-provincial trade are set by federal agencies and by the province of Ontario for fish sold within the province. In both cases, the geographic origin of the fish and method of harvest is not required information making it difficult for consumers to be fully informed about the fish they are eating (Roebuck et al., 2017). In the Lake Superior region, some direct fish marketing businesses have emerged to meet the consumer demand for local, traceable, and fresh fish. However, interviews undertaken with Lake Superior fish processors and retailers as part of my previous research in the region (*see* Lowitt et al., 2019a), suggest that navigating the disparate agencies involved in the fisheries-based food system is a challenge and that there is a lack of policy supports and guidance available to new fisheries businesses.

In addition to addressing the gap between policies dealing with fisheries management and fish consumption, another priority for sustainable diets linked to fisheries needs to be reconciliation with Indigenous communities. According to the Ontario Provincial Fish Strategy, Indigenous people do not need a license for fishing for food, social, or ceremonial purposes within their territories; Indigenous commercial fisheries receive quota allocations in accordance with the province's interpretation of case law.

---

[1] ITQs are a market-based allocation tool that enables fisheries managers to allocate pre-determined shares of the Total Allowable Catch (TAC) to individual quota owners who can transfer them to others.

However, many First Nations challenge the province's view of underlying management control of fisheries, asserting inherent Aboriginal and Treaty rights[2] to fish and the pursuit of fishing as fundamental to self-determination and food sovereignty (Lowitt et al., 2019b). Governments and trans-national bodies across the Great Lakes, including Lake Superior, have been critiqued for not upholding Treaty relationships and treating First Nations as stakeholders within governance forums (Norman, 2015). For example, no First Nation has been invited to sign the Joint Strategic Plan for the Management of Great Lakes Fisheries, the main multi-jurisdictional agreement for basin-wide fisheries management. The Tribal and First Nations Great Lakes Water Accord is a response to this inequity in existing governance structures. Policy for sustainable diets in the region needs to uphold Indigenous rights and recognize the unique cultural, spiritual, and ecological relationships that surround fisheries and their roles in sustainable diets within Indigenous communities (Kuhnlein & Humphries, 2017; Lowitt et al., 2019b). Further, Indigenous governance rooted in principles of interconnection among people and ecosystems may likewise help address the policy gaps between fisheries management,consumption, and health (Cooke et al., 2020; Lowitt et al., 2019b).

Conclusion

In conclusion, this perspective piece has sought to identify opportunities for linking fisheries policy to a consideration of sustainable diets in the Lake Superior region. I suggest this will depend on forming new collaborations across fisheries and the broader food system, including fisheries managers, public health, and food and agriculture agencies working together to address systems-level interactions and issues. It also requires settler laws and policies recognizing and supporting Indigenous fisheries governance that may contribute to sustainable diets within those communities. Lastly, interdisciplinary research spanning fisheries, social science, and health will be important to providing a more integrative understanding of fisheries, including their ecological and socio-cultural aspects, to inform future policy for sustainable diets in the region.

Acknowledgements: I would like to acknowledge conceptual input from the Food: Locally Embedded Globally Engaged (FLEdGE) research team, as well as Charles Levkoe for his contributions to our previous research together which has informed this article. I also acknowledge financial support from the Social Sciences and Humanities Research Council of Canada.

---

[2] Inherent rights do not arise from any particular law or Treaty but are pre-existing rights believed to be granted to Indigenous people by the Creator (Sanderson, 2017). They are distinct from but related to Aboriginal and Treaty rights as affirmed in the Constitution of Canada.

References

Berkes, F (2010). Shifting perspectives on resource management: Resilience and the reconceptualization of 'natural resources' and 'management.' *MAST, 9*(1) 13-40.

Bohaker. H. (2006). *Nindoodemag: Anishinaabe Identities in the Eastern Great Lakes Region, 1600 to 1900*. [Doctoral dissertation, University of Toronto]. Library and Archives Canada.

Burlingame, B., Dernini, S., & FAO. (2010). *Sustainable diets and biodiversity: Directions and solutions for policy, research and action*. Rome. http://www.fao.org/3/i3004e/i3004e00.htm.

Clapp, J. (2018). Mega mergers on the menu: Corporate concentration and the politics of sustainability in the global food system. *Global Environmental Politics, 18*(3), 12-33.

Cooke, S., Nguyen, V.M., Chapman, J.M., Reid, A.J., Landsman, S.J., Young, N., Hinch, S.G., Schott, S., Mandrak, N.E., Semeniuk, C.A.D. (2020). Knowledge co-production: A pathway to effective fisheries management, conservation, and governance. *Fisheries Magazine*. https://doi.org/10.1002/fsh.10512.

FAO, & WHO. (2019). *Sustainable healthy diets – Guiding principles*. Rome. http://www.fao.org/3/ca6640en/ca6640en.pdf.

FAO. (2015). *Voluntary guidelines for securing sustainable small-scale fisheries in the context of food security and poverty eradication*. Retrieved from http://www.fao.org/3/a-i4356en.pdf.

Fisher, B., Naidoo, R., Guernier, J., Johnson, K., Mullins, D., Robinson, D., & Allison, E. (2017). Integrating fisheries and agricultural programs for food security. *Agriculture & Food Security, 6*(1). https://doi.org/10.1186/s40066-016-0078-0.

Hawkes, C., Friel, S., Lobstein, T., & Lang, T. (2012). Linking agricultural policies with obesity and noncommunicable diseases: A new perspective for a globalising world. *Food Policy, 37*(3), 343–353.

Hendrickson, M. (2014). Resilience in a concentrated and consolidated food system. *Journal of Environmental Studies and Sciences, 5*(3), 418-431. https://doi.org/10.1007/s13412-015-0292-2

Lake Superior lakewide action and management plan 2015-2019. (2016). *The Lake Superior Partnership*. Retrieved from https://binational.net/wp-content/uploads/2016/09/Lake%20Superior%20LAMP%202015-2019.pdf

Kuhnlein, H. V. & Humphries, M. M. (2017) *Traditional animal foods of Indigenous peoples of Northern North America*. Montreal, Centre for Indigenous Peoples' Nutrition and Environment.

Loring, P., Gerlach, S., & Harrison, H. (2013). Seafood as local food: food security and locally caught seafood on Alaska's Kenai Peninsula. *Journal of Agriculture Food Systems and Community Development, 3*(3), 13-30.

Loring, P., Fazzino, D. Agapito, M., Chuenpagdee, R., Gannon, G., & Isaacs. M. (2019). Fish and food security in small-scale fisheries. In R. Chuenpagdee, & S. Jentoft (Eds.), *Transdisciplinarity for Small-Scale Fisheries Governance* (pp.55-73). Springer.

Love, D., da Silva, P., Olson, J., Fry, J., & Clay, P. (2017). Fisheries, food, and health in the USA: the importance of aligning fisheries and health policies. *Agriculture and Food Security, 6*(16). https://doi.org/10.1186/s40066-017-0093-9.

Lowitt, K., Levkoe, C., & Nelson, C. (2019). Where are the fish? Using a fish as food framework to explore the Thunder Bay Area fisheries. *Northern Review, 49,* 39-65.

Lowitt, K., Levkoe, C., Lauzon, R., Ryan, K. & Sayers, D. (2019). Indigenous self-determination and food sovereignty through fisheries governance in the Great Lakes Region. In P. Andrée, J. Clark, C. Levkoe, & K. Lowitt. (Eds.), *Civil Society and Social Movements in Food System Governance* (pp. 145-163). Routledge Press.

Lowitt, K. (2013). Examining fisheries contributions to community food security: Findings from a household seafood consumption survey on the west coast of Newfoundland. *Journal of Hunger and Environmental Nutrition, 8*(2), 221-241.

Minnesota Sea Grant. (2014, October 23). *Lake Superior's fish species*. Retrieved from http://www.seagrant.umn.edu/fisheries/superior_fish_species

Norman, E. (2015). *Governing transboundary waters: Canada, the United States, and Indigenous communities*. Routledge Press.

Ontario Nature. (2014). *Beyond the field: The value of forest and freshwater foods in Northern Ontario*. Retrieved from https://ontarionature.org/wp-content/uploads/2017/10/beyond_the_fields.pdf.

Pinkerton, E. (2013). Alternatives to ITQs in equity–efficiency–effectiveness trade-offs: How the lay-up system spread effort in the BC halibut fishery. *Marine Policy, 42*, 5-13. doi.org/10.1016/j.marpol.2013.01.010.

Roebuck, K., Turlo, C., Fuller, S., & Wallace, S. (2017). Canadians eating in the dark: A report card of international seafood labelling requirements. *SeaChoice*. Retrieved from https://www.seachoice.org/wp-content/uploads/2017/03/Seafood-Labelling-Report-Online.pdf.

Sanderson, S. (2017) *Constitution Act 1982: implementation of sections 35(1) and 35 (2)*. FSIN Office of the Senate. Available at:

https://sencanada.ca/content/sen/committee/421/APPA/Briefs/ConstitutionAct_2017-09-19_e.pdf.

Seto, K., & Fiorella, K. (2017). From sea to plate: The role of fish in a sustainable diet. *Frontiers in Marine Science*. https://doi.org/10.3389/fmars.2017.00074

Spooner, E. (2014). *Monterey Bay Aquarium seafood watch*. Retrieved from http://seafood.ocean.org/wp-content/uploads/2016/10/Lake-Superior-lakefish.pdf

Tansey, G., & Worsley, T. (1995). *The food system: A guide*. Earthscan Publications Ltd.

Willett, W., Rockström, J., Loken, J., Springmann, M., Lang, T., Vermeulen, S., Garnett, S., Tilman, D., DeClerck, F., Wood, A., Jonell, M., Clark, M., Gordon, L.J., Fanzo, J., Hawkes, C., Zurayk, R., Rivera, J.A., De Vries, W., Sibanda, L.M., Afshin, A... Murray, C.J.L. (2019). Food in the Anthropocene: the EAT–*Lancet* Commission on healthy diets from sustainable food systems. *The Lancet Commissions, 393*(10170), 447-492. https://doi.org/10.1016/S0140-6736(18)31788-4.

Vol. 8 No. 2, pp. 18-47 August 2021

Canadian Food Studies La Revue canadienne des études sur l'alimentation

Original Research Article

Modularity in intersectoral research/action collaborations for food systems transformation: Lessons from the FLEdGE community-engaged network

Charles Z. Levkoe[a*], Alison Blay-Palmer[b], Irena Knezevic[c], David Szanto[d], Nii A. Addy[e]

[a] Lakehead University
[b] Wilfrid Laurier University
[c] Carleton University
[d] University of Ottawa
[e] McGill University

Abstract

How can academics and community practitioners better collaborate to overcome the existing barriers? What role can intersectoral research collaboratives play in supporting, enhancing, and sustaining the impact of community-engaged research? In response to these broad questions, this paper shares insights from the Food: Locally Embedded, Globally Engaged (FLEdGE) community-engaged research network, a collaborative, interdisciplinary group of scholars and practitioners that crossed sectors, scales, and geographies. The FLEdGE research program ran from 2015 to 2021, and built on over a decade of academic and community partnerships to assess the current and potential role of food initiatives as pillars for sustainable transformation. Our mixed-methods study draws on data from a social network analysis survey, summary reports, semi-structured interviews, and reflections from the authors who were all active members of the network. Our findings reveal that beyond making theoretical and practical contributions to food systems scholarship and initiatives in the participating regions, FLEdGE played an important role in building food movements across Canada and beyond. We describe this as a modular approach, an organizational structure in which multiple units (or modules) operate independently while also sharing enough commonalities that allow them to be interrelated, modified, and reconfigured in diverse and dynamic ways.

*Corresponding author: clevkoe@lakeheadu.ca

DOI: 10.15353/cfs-rcea.v8i2.431
ISSN: 2292-3071

We argue that intersectoral research networks adopting a modular approach require interdisciplinarity and collaborative methodologies, but also flexibility and critical reflexivity. In addition, we underscore that setting objectives, both overarching and tactical, requires a negotiated approach, particularly when budgetary administration resides within an institutional partner.

Keywords: Community-engaged research; FLEdGE; food systems; modularity; social network analysis

Introduction

Critical research focusing on equitable and sustainable food systems has grown dramatically over the past decades. Numerous studies have documented the enhanced impacts of intersectoral and engaged research approaches with academics working alongside practitioners and activists towards common goals (Wakefield, 2007; Levkoe et al., 2016; Knezevic et al., 2017; Reynolds et al., 2018). However, this work has been limited by institutional barriers, including disciplinary and sectoral pressures such as limited funding for community participation and little acknowledgement or reward for academics (Changfoot et al., 2020), a distrust of academics and their institutions (Dempsey, 2010; Bortolin, 2011; Kepkiewicz et al., 2018), along with limited time and resources to pursue this kind of work (Israel et al., 1998). These challenges demand that academics involved in community-based research consider ways to overcome existing barriers.

In response to these broad challenges, this paper shares insights from the Food: Locally Embedded, Globally Engaged (FLEdGE) community-engaged research/action network, a Canada-based, interdisciplinary group of scholars and community-based practitioners from across sectors, scales, and geographies.[1] FLEdGE built on over a decade of prior partnerships among academic, public, private, and non-profit actors and was established as a limited-term research collaboration funded by the Social Science and Humanities Research Council of Canada (SSHRC) from 2015 to 2021. It aimed to assess the current and potential role of community food initiatives as pillars for sustainable transformation. Through FLEdGE, the partnerships evolved and led to new networks, thus extending collaboration beyond the grant.

The research for this paper asks: What role can intersectoral research collaboratives play in supporting, enhancing, and sustaining the impact of community-engaged research?

---

[1] More information about the FLEdGE network including details about its structure, governance, outputs, and outcomes are available at https://fledgeresearch.ca/.

Our mixed-methods evaluative study draws on data from a social network analysis (SNA) survey of FLEdGE participants, summary reports submitted by each of the research teams and working groups, project outputs, semi-structured interviews with academics and community-based practitioners engaged in FLEdGE, and reflections from the authors who were all active academic members of the FLEdGE network.[2] This research takes a macro view of the FLEdGE network, drawing on and combining different methods to provide a portrait of one intersectoral research collaboration with the goal of food systems transformation. Our findings reveal that beyond making theoretical and practical contributions to food systems scholarship and initiatives in the particular regions, FLEdGE played an important role in expanding networks across Canada and beyond. This paper is part of a themed issue of *Canadian Food Studies* that includes contributions from across the FLEdGE network, providing further examples of specific projects, impacts, and outcomes.

Reflecting on the insights revealed by our research, we propose that research and action collaboratives aiming to build more equitable and sustainable food systems take a *modular* approach. The extensive body of literature on modularity spans numerous themes, ranging from product and service design to organizational management to the behaviour of complex systems (Baldwin & Clark, 2000; Frandsen 2017; Newman, 2006). For the purposes of this paper, we interpret modularity as an organizational structure in which multiple units (or modules) operate independently while also sharing enough commonalities that allow them to be interrelated, modified, and reconfigured in diverse and dynamic ways. It implies a selective use of the different pieces of the whole, which allows for nimbleness and flexibility. As the FLEdGE network evolved, it embraced a set of practices that can be interpreted as a modular approach to both research methods and outputs. Although modular design was not an intentional aspect of the original organizing structure, its emergence over time serves as the frame we have adopted for our analysis, and usefully works to describe our collective insights. We suggest that intersectoral research networks adopting a modular approach require interdisciplinarity and collaborative methodologies, but also the flexibility and critical reflexivity of decision-makers to allow for emergent approaches (Snowden & Boone, 2007), as was the case for FLEdGE.

We begin by reviewing literature discussing intersectoral research collaborations and insights for scholars and practitioners engaged in food systems research. The authors of this paper are actively engaged in such research and we draw, in part, on our own scholarship as a foundation for collective reflection. Next, we describe the context and evolution of the FLEdGE network and present our findings in three distinct sections: SNA, FLEdGE outputs, and interview data.

---

[2] Alison Blay-Palmer was the primary applicant of the SSHRC grant and the Director of the Laurier Centre for Sustainable Food Systems, which hosted the FLEdGE project. Charles Levkoe and Irena Knezevic were co-applicants of the SSHRC grant and active in the Northern and Eastern Ontario nodes respectively. Nii Addy was a member of the Quebec node that was developed from the grant, linking to other networks, and David Szanto joined FLEdGE as a postdoctoral fellow in 2019 to support research and evaluation of the network.

Following the model of modular design that recognizes modules as both interdependent and complementary, each section aims to show different yet interdependent portraits of FLEdGE. We end with a reflective discussion and share recommendations for future research and practice.

Intersectoral research collaboration and food systems scholarship

In the context of this paper, we use the term *intersectoral research collaborations* to describe a range of engagements between academics (e.g., students, faculty, and research staff) and practitioners (e.g., public, private, and non-profit actors). These collaborations may take the form of formal research projects that consider a series of ideas, investigate a specific problem, and/or engage in an action-oriented initiative with goals of social change. They go far beyond holding joint meetings or consultations and can range from sharing ideas to active knowledge co-creation (Katz & Martin, 1997). We adopt Strand et al.'s (2003) description of meaningful partnerships as ones that "collaboratively engage in research with the purpose of solving pressing community problems or effecting social change" (p. 3). In addition, we draw insights from studies that approach engaged research as relational and mutually beneficial (Israel et al., 1998; Strand et al., 2003). Further, we agree with critical scholars who suggest that effective collaborations must challenge dominant power relations that are embedded in the research process itself (Curwood et al., 2011; Jagosh et al., 2015; Taylor & Ochocka, 2017). When done well, intersectoral research collaborations provide new opportunities to address pressing social challenges by bringing together unique and innovative knowledge, skills, and tools (Schwartz et al., 2016, p.178).

Institutions that broker such collaborations play an important role in sustaining projects over time and supporting participants from conception and design to implementation and knowledge mobilization (Tennyson, 2014). They can be integral in promoting learning across the network and negotiating power imbalances among those involved (Keating & Sjoquist, 2000; Phipps et al., 2015). Exploring the characteristics of different models for supporting intersectoral research collaboration, Levkoe and Stack-Cuttler (2018) reviewed the literature along with a range of examples from Canada, the US, and the UK to reveal that there is no single or universal approach that will guarantee success. Instead, approaches must be context-specific and responsive to the shifting needs and assets of the varied partners involved. This finding does not negate the need for tools to support collaborations in more deliberate ways. In our research on the FLEdGE network, we recognize that the wide range of structures, compositions, and purposes of intersectoral research collaborations can complicate a systematic study, yet we suggest that their diversity and complexity is part of what makes them so promising.

The value and impact of research collaborations cannot be quantified in a straightforward way (Beckman et al., 2011; Greenhalgh et al., 2016; Levkoe & Kepkiewicz, 2020).

While some outputs can be immediately observed and measured (e.g., the number of multi-authored publications, research grants received, people engaged), the value of intersectoral research collaborations and their related outcomes are often intangible in the short-term (Goemans, 2018; Peacock et al., 2020). Collaborations that begin at the conceptualization and design phase have been shown to encourage more respectful relationships (Bringle & Hatcher, 2002; Ochocka & Janzen, 2014). Involving community-based practitioners as partners during the early stages of a project and continuing throughout the research process can improve knowledge-sharing and problem-solving capabilities (Lindamer et al., 2009). Intersectoral research collaborations can produce new and sometimes unexpected perspectives that increase knowledge generation (McNall et al., 2009). Additionally, such collaborations can generate new opportunities for experiential learning and student training by enabling the application of theoretical concepts and strengthening leadership capacities inside and outside the academy (Chupp & Joseph, 2010). This is particularly valuable for food systems work, in which boundaries between scholarly and applied efforts can be porous (Frank, 2014; Bradley et al., 2018).

Intersectoral research collaborations can lead to mutually beneficial outputs and outcomes (Levkoe et al. 2016; Naqshbandi et al. 2011). Beyond contributions to academic literature and theory, deeper engagement can lead to high-impact applications of research findings. For example, Savan and Sider (2003) show how a large-scale intersectoral research collaboration brought together academics, practitioners, universities, research centres, and non-profit organizations to build capacity for increased sustainability initiatives in the city of Toronto. Using multiple forms of community-engaged research, this took the form of new working relationships as well as a diverse range of scholarly and practical benefits, including enhanced social and economic community development. Other demonstrated benefits from intersectoral research collaborations include building capacity for under-resourced community-based organizations (Baquet, 2012; Sandy & Holland, 2006), sustaining relationships beyond the life of a project (Naqshbandi et al., 2011), and increasing potential to challenge inequitable power dynamics in society while encouraging systemic change (Marullo & Edwards, 2000; Sheridan & Jacobi, 2014). Intersectoral research that draws upon the perspectives of diverse stakeholders recognizes the complexity of societal problems, moving beyond the misdiagnosis of such problems as “complicated” ones (Snowden & Boone, 2007), with the “expert” versus “beneficiary” approaches that have historically characterized social science research. The work of 2009 Nobel Economics laureate, Elinor Ostrom, is illustrative of such intersectoral efforts (Ostrom, 2010), which shift attention from expertise and predictive analysis to privilege-probing and broad stakeholder engagement, often using qualitative approaches for diagnostic analysis (Addy et al., 2014).

Despite these documented benefits and opportunities of intersectoral research collaborations, there are limitations and barriers that inhibit more widespread success including high time, financial, and human resource requirements.

Costs can include having to share already limited resources, additional travel, limited capacity to fully engage in regular communication, negotiations and conflict resolution, and increased administration requirements (Dorow et al., 2011; Petri, 2015; Sandy & Holland, 2006).

Disciplinary and sectoral pressures faced by both researchers and practitioners also present limitations. Post-secondary faculty face a growing set of professional expectations to meet particular standards. These expectations are often increased by taking on collaborative research projects. For example, research findings rarely fit comfortably into existing structures dictated by discipline-specific departments and scholarly journals (Checkoway, 2015; O'Meara et al., 2015). A reflective essay by Changfoot et al. (2020) demonstrates ways in which collaborative and engaged research has an impact on faculty at all stages of tenure and promotion, arguing for academic institutions to better recognize and support these initiatives (also see O'Meara et al., 2015; Sobrero & Jayaratne, 2014). Further, many community-based practitioners and non-profit organizations have limited capacity and resources to take on research-related projects, due, in part, to funding obligations and pressure to address immediate social needs (Incite! Women of Colour Against Violence, 2007).

Another limitation relates to the historical and ongoing experiences of distrust between academics and community-based practitioners (Lantz et al., 2001; Petri, 2015). Post-secondary institutions legitimize and centre academic knowledge and associated modes of knowledge production over other ways of knowing (Smith, 2002; Hart et al., 2017). In most cases, academics and their institutions are the primary beneficiaries of collaborative research projects (Ward & Wolf-Wendel, 2000; Dempsey, 2010; Alcantara et al., 2015). Complicating matters are the power dynamics that favour academic over community interests and broader social needs (Bortolin, 2011; Curwood et al., 2011; Flicker, 2008; Sheridan and Jacobi, 2014; Vernon & Ward, 1999), perpetuating dominant social relations that many projects aspire to address (Butcher at al., 2011; McBride et al., 2006; Varcoe, 2006). In a reflective essay about their engagement in a pan-Canadian intersectoral research collaboration, Kepkiewicz et al. (2018) recognize,

> Despite our best efforts, we fell short of our aim to engage in research that benefited communities first and foremost. While emphasizing the importance of working towards 'community first' [intersectoral research collaborations], we are cautious of our ability to do so meaningfully in the present political and economic context where academic institutions privilege western and academic knowledge and expertise (pp. 45–46).

Furthermore, Grain and Lund (2016) argue that the work of intersectoral research collaborations are too often "steeped in a history of White normativity and charity" (p. 46).

The studies identifying both opportunities and limitations of intersectoral research collaborations are particularly insightful for scholars and practitioners engaged in food systems projects. As an evolving field, food systems scholarship demands interdisciplinarity, community engagement, and critical perspectives.

It is a dynamic and evolving assemblage of theories and approaches that use food as a lens to understand a wide range of social and ecological issues (Albala, 2013; Atkins & Bowler, 2016; Brady et al., 2015). Koç et al. (2016), explain, "food studies focuses on the web of relations, processes, structures and institutional arrangements that cover human interactions with nature and other humans involving the production, distribution, preparation, consumption, and disposal of food" (p. xiv). Intersectoral research collaborations have not only been embraced by food systems scholarship but have also been instrumental in the development of the field. Through the Community First, Impacts of Community Engagement (CFICE) partnership project, partners working on food sovereignty projects described the establishment of a community of practice that contributed to research, teaching, and action. Levkoe and Kepkiewicz (2020) explain:

> Overall, there was a consensus among participants that partnerships expanded their networks, providing community practitioners and academics an opportunity to learn from and connect with others within and beyond their existing networks. These communities of practice helped to strengthen project partners' ability to meet their objectives, expand the focus of their work, and better develop and pursue a mutual agenda for social change (pp. 231–232).

In another study of the CFICE project, Levkoe et al. (2016), argue that "when it is part of relationships based on mutual benefit and reciprocity, [community-campus engagement] can—and does—play an important role in building food movements" (p. 32). Further, Andrée et al. (2016) explain that the CFICE partnerships provided academics with new insights about ways to critically engage in food studies research, teaching, and action.

It is within this broader context of intersectoral research collaborations and food systems scholarship that the FLEdGE network was embedded.

The FLEdGE community-engaged research/action network

The FLEdGE network was established in 2015, when a group of community and academic researchers secured a Partnership Grant from SSHRC. Hosted by the Laurier Centre for Sustainable Food Systems, FLEdGE brought together numerous existing collaborations and projects from across Canada and internationally to create an intersectoral research/action network. This pre-existing work cemented the core principles of FLEdGE, a commitment "to fostering food systems that are socially just, ecologically regenerative, economically localized and that engage citizens" (About FLEdGE, n.d.). As part of the grant application, members collectively agreed on three broad areas to guide the action-research projects: 1) Integration across multiple political jurisdictions (municipal, regional, national, international), policy spheres (e.g., economic development, agriculture, the environment), and sectors (public, private, civil society);

2) Exploring and addressing tensions, compromises, and opportunities inherent in the scaling up and out of sustainable food system initiatives; and 3) The need for appropriate, innovative governance structures and institutions to support the development of sustainable regional food systems. The FLEdGE network set out to explore and document ways that community knowledge was being shared among the existing initiatives, opportunities for that knowledge to be adapted to place-specific needs and conditions in other communities, and opportunities for knowledge to inform theory and scholarship on food systems.

The FLEdGE network comprised over 50 partner organizations, including non-profits, public sector practitioners, universities and research centres, and co-ops and small businesses. The original configuration included eight regional nodes in Canada—four in Ontario and one each in the Northwest Territories (NWT), Alberta/British Columbia, Quebec, and Atlantic Canada. As work progressed, two Ontario regional nodes (southern and southwestern Ontario) merged. The nodes functioned autonomously while looking for points at which research initiatives intersected. Examples of this included: the use of the Open Food Network platform, developed as part of the southern Ontario node, which was then taken up in northern Ontario; Indigenous food systems initiatives with intersections between NWT and northern Ontario; development of a food policy database in British Columbia, later adapted in Alberta and Ontario; and the creation of the pan-Canadian Food Counts metrics project, which mobilized food systems indicators using a food sovereignty framework. The group committed to ongoing reflexive assessment of the research and networking processes using SNA and other evaluative tools.

In the first and second year of FLEdGE, international working groups emerged organically at the intersection of the core themes and ongoing international research collaborations and initiatives. One international working group focused on innovative governance (Andrée et al., 2019), and a second focused on food system metrics and tools (Blay-Palmer et al., 2019). A third working group on agroecology included an agroecology field school and research summit held in 2016 and 2018 (Laforge et al., 2020).

The FLEdGE network's structure and governance were emergent and evolved over time. While the collaborative research/action network began with a group of existing partners, these relationships grew to include new engagements, as individuals were added, and research and action initiatives expanded. Over time, the FLEdGE core team, made up of leads from the regional nodes, worked to support the different components of the collective work, acting as a "backbone organization" (Kania & Kramer, 2011). Decisions about funding and project direction were made collectively by the core team, and a project coordinator was hired to support the node's research and reporting, along with overall administration. Meetings were held monthly through video calls to discuss node progress, priorities, and directions. Through these discussions, there were opportunities to identify collaborative research projects and engage in joint outputs. Face-to-face meetings were organized at annual conferences, in particular as part of the annual meeting of the Canadian Association for Food Studies (CAFS).

Findings: Portraits of the FLEdGE network

Our findings from research with the FLEdGE network encompass quantitative and qualitative data. We highlight the network's evolution based on two SNA surveys, FLEdGE outputs, and qualitative interviews with members of the network.

Social network analysis

To conduct a SNA of the FLEdGE network, surveys were circulated twice, in 2015 (response rate of 55%), during the first year of the network, and again in 2018 (response rate of 59%). The surveys were sent by email to all active members of the network, based on lists held within the FLEdGE database and confirmed by the node leaders. Data were collected and analyzed in relation to three relationship categories: communication (i.e., in person, by phone, or by email), work-related collaboration, and referential relationship (i.e., using the specified individual's program, research). All ties were directed, meaning that each connection in the network specified who was identifying the relationship (vs. only indicating that a relationship existed).

Overall, the FLEdGE network more than doubled in size over four years. The percentage of strong communication, collaboration, and referential ties increased significantly. The percentage of weak ties decreased across all three categories. For the network visualizations in Figures 1 and 2 below, we highlight affiliation (i.e., university, community) and regional grouping (i.e., Ontario, Canada outside of Ontario, international). The 2018 data suggest that university-affiliated network members were more likely to communicate with, collaborate with, and reference other university members than they were with community members. The likelihood of communication, collaboration, or referential ties among members of the same region and between members of different regions were much higher than expected. In the following subsections, we present some of the most salient findings from the SNA.

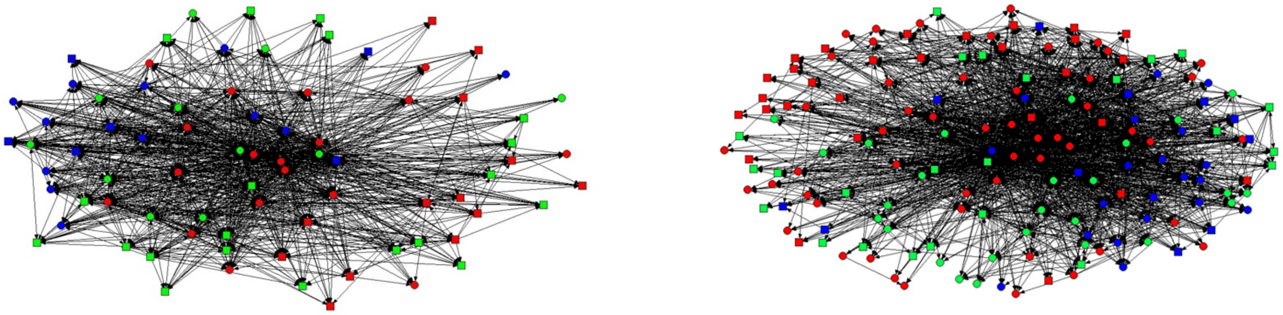
Communication, collaboration, and referential categories

Overall, the size of all three networks in the relationship categories increased between 2015 and 2018. The *number of nodes*, being the number of actors in the pre-defined network, increased from 80 in 2015 to 162 in 2018. The *total number of communication and collaboration ties*, or the total number of reported communications and collaboration connections between nodes, doubled over the same period, from 1466 to 2899, and from 910 to 1967 respectively. The *total number of referential ties* between nodes in 2018 (2386) was almost three times that of 2015 (875).

The quality of the ties also grew stronger over time. For example, the *percentage of strong and moderate communication ties* (as rated by respondents) increased, from 15% and 22% respectively in 2015 to 21% and 28% in 2018, a finding consistent with the evolution of collaboration and referential ties. The whole communication, collaboration, and referential networks, including all reported respective ties in 2018 are illustrated in the sociograms in Figure 1.

Figure 1: Sociograms, whole network including all reported

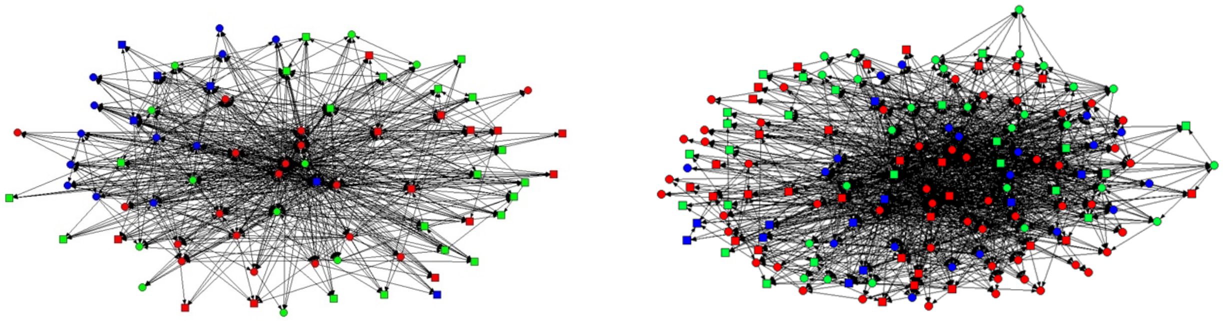
Figure 1.1: Communication ties



2015

2018

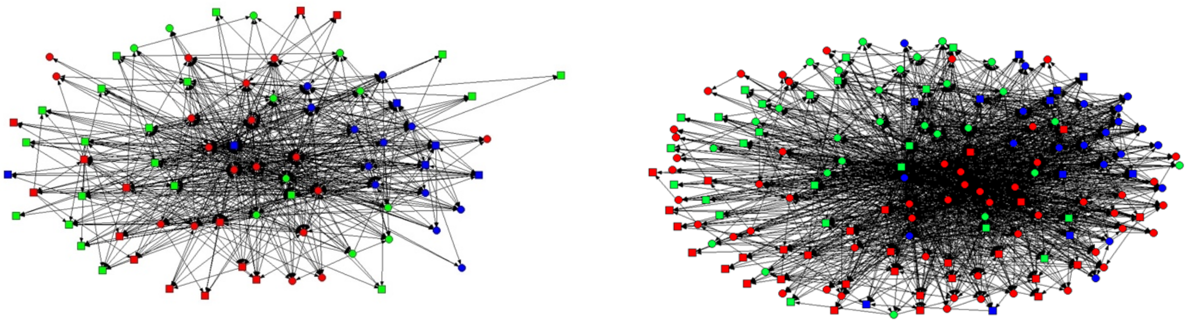
Figure 1.2: Collaboration ties



2015

2018

Figure 1.3: Referential ties



2015

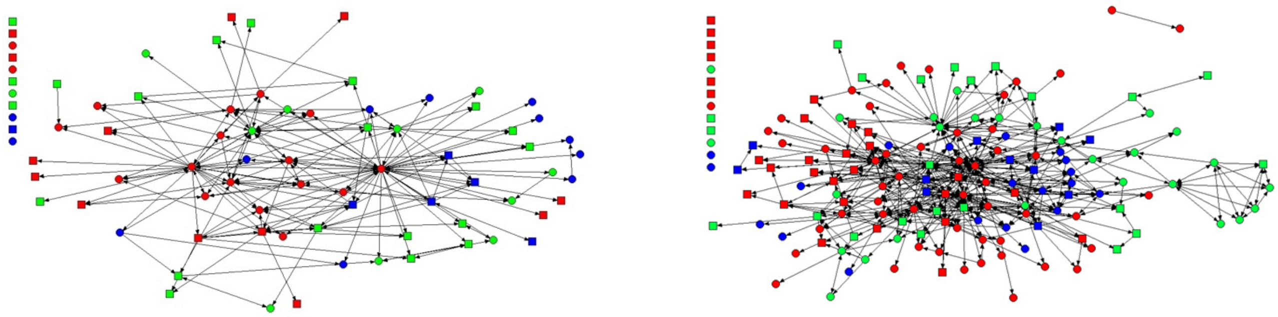
2018

Circle = University affiliation
Square = Community affiliation
Red = Ontario
Green = Canada outside of Ontario
Blue = International

Measures of centrality and cohesiveness indicated that communication, collaboration, and referential ties evolved over time. For example, a closer look at relationships among those who indicated strong ties yielded additional insights. There was a decrease in *centralization*—a measure of how central the most central node is in relation to how central all the other nodes are—of the communication ties (from 0.561 in 2015 to 0.247 in 2018), collaboration ties remained relatively stable (from 0.299 in 2015 to 0.294 in 2018), and the referential ties became more centralized (from 0.310 in 2015 to 0.337 in 2018). The ties that were reported as strong for communication, collaboration, and referential networks in 2018 are illustrated in the sociograms in Figure 2.

Figure 2: Sociograms, whole network including only strong ties

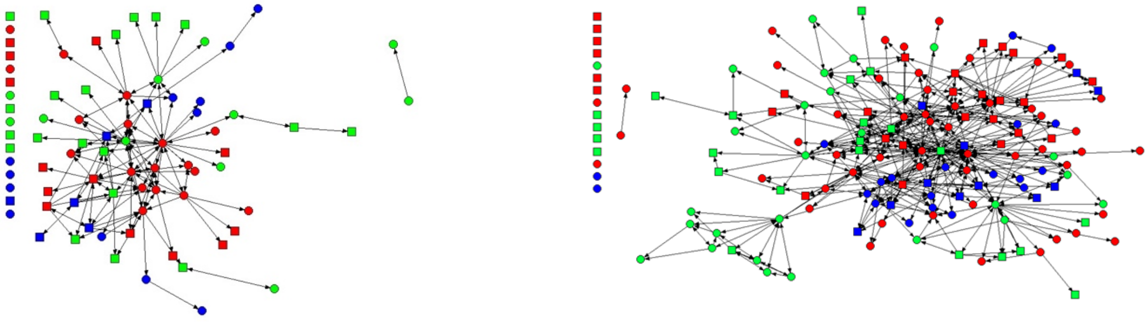
Figure 2.1: Communication ties



2015

2018

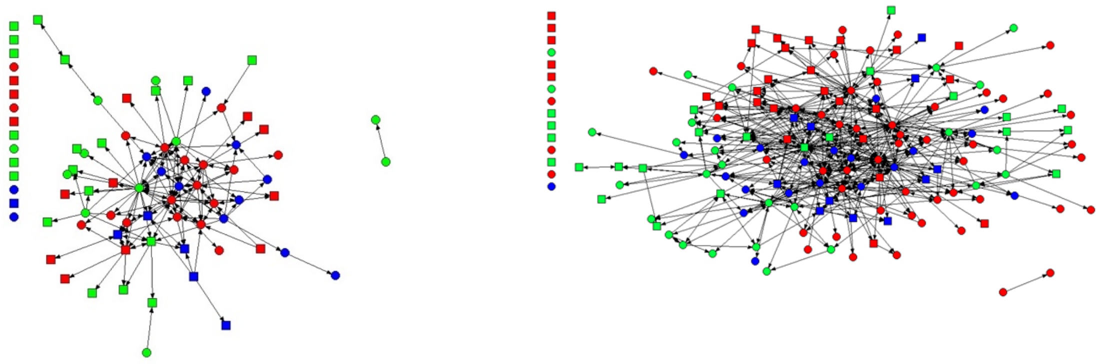
Figure 2.2: Collaboration ties



2015

2018

Figure 2.3: Referential ties



2015

2018

Circle = University affiliation
Square = Community affiliation
Red = Ontario
Green = Canada outside of Ontario
Blue = International

Tests of correlations

Three types of correlations were tested in each of the three relationship categories. First were tests of whether the density of communication, collaboration, and referential ties within and between two groups (university and community) differs from what we would expect if ties were distributed at random across all pairs of nodes, and we found significant differences. We found evidence of homophily—that is, university-affiliated network members are more likely to communicate and collaborate with, as well as reference, other university-affiliated network members than with community members. Further, we found that communication, collaboration, and referential ties between university-affiliated members and community members are less likely than random, rather than more likely. Ties between actors who share the attribute of community affiliation are also less likely than random.

Second were tests of whether ties within and between three regional groupings differed from what we would expect if ties were distributed at random across all pairs of nodes. We found no significant differences. Third were tests of correlation that showed the density of communication, collaboration, and referential ties within and between the regional nodes differed in some cases from what we would expect if ties were distributed at random across all pairs of nodes. While we found that "additional in Canada" showed homophily with all other regions, not all other regions were reciprocal.

From a broader perspective on the overall network characteristics, we focused on the findings of ties between university- and community-affiliated from the three sets of correlation tests. While FLEdGE has provided a means for communication, collaboration, and referential ties, the finding that ties between the two types remain less likely than those between academics suggests the potential for even greater levels of collaboration.

Next, our analysis of project outputs shows how FLEdGE members are creating value and suggests opportunities for further leveraging ties between academic and community members.

FLEdGE outputs

The outputs from the FLEdGE network illustrate the quality, flexibility, and impact of the communication, collaboration, and referential ties among members, and other aspects of the partnerships. Throughout the grant's tenure, FLEdGE node leads gathered information about contributions and productivity, including in-kind and cash contributions, academic publications, reports, presentations and workshops, meetings, student engagement and training, and other outputs from the various subprojects. The FLEdGE administrative coordinator gathered the impact measures from each node three times a year and consolidated them annually. Knowledge sharing among partners and beyond the FLEdGE network was at the heart of the work. FLEdGE relied on a community-engaged, participatory approach to research that included 132 individuals and 89 organizations. By August 2020,[3] FLEdGE had generated 720 informational outputs, including 80 peer-reviewed journal papers (42 open access), 313 presentations, 41 interviews in print or broadcast, 43 book chapters, four open access books, 93 reports and briefs, 14 online tools, 29 videos, 14 infographics, and dozens of blog posts and popular articles. In 2019, FLEdGE launched a podcast series called *Handpicked: Stories from the Field*, which reports on the research and action of network members and partners. Furthermore, FLEdGE had attracted more than $4.7 million in matching contributions from partners and other supporters.

Each node and working group reinforced existing partnerships and built new connections that aimed to extend into the future through the creation of community relevant tools, resources, and capacity building. There are several examples that demonstrate the place-based differentiation of the FLEdGE research projects. In the NWT, on-the-land camps focused on intergenerational knowledge exchange, mapping changing landscapes to help ensure harvester safety in the context of climate change, and on-going discussions about whether growing food as a complement to traditional food systems is culturally and logistically appropriate (Simba & Spring, 2017).

---

[3] At the time of writing, results up until August 2020 were available. Most outputs are available on the FLEdGE website (https://fledgeresearch.ca/).

At the national scale, Food Counts, the pan-Canadian report card on sustainable food systems, drew on principles of food sovereignty and integrated existing indicators from across multiple sources (including Statistics Canada) to benchmark the extent of sustainability for Canada (Levkoe & Blay-Palmer, 2018). It also pointed out where information is lacking, for example in trying to understand the idea of valuing food as sacred, especially from an Indigenous perspective (Levkoe & Blay-Palmer, 2018). Other examples include: Kwantlen Polytechnic University's food policy database and bioregional food self-reliance modelling; working with Food Secure Canada (FSC) and other food movement actors to provide input into the creation of a national-level Food Policy for Canada (Levkoe & Wilson, 2019); co-creation, with international partners, of a sustainable food systems toolkit (Blay-Palmer et al., 2018); creation of innovation impact mapping methodology with the French Agricultural Research Centre for International Development in fourteen urban food innovation labs (Valette et al., 2020); the creation of food system support tools, including maps for the Good Food Market Expansion Explorer; support for establishing the Indigenous Food Circle, made up of 22 Indigenous-led and Indigenous-serving organizations addressing food sovereignty in northwestern Ontario (Levkoe et al., 2019); and a fish-as-food framework used to explore equitable and sustainable fisheries in the Lake Superior watershed and beyond (Levkoe et al., 2017; Lowitt et al., 2019).

Over time, given the diversity of projects and processes, a need arose to update the objectives of the FLEdGE network and make the underlying assumptions more explicit. A year-long process of internal consultation and reflection ended with the identification and articulation of six Good Food Principles in 2019, all linked to existing evidence in the form of academic publications and community reports. The new principles were rooted in the overarching goal to build sustainable food systems for all, with a focus on six key areas: 1) Farmer Livelihoods, 2) Food Access, 3) Indigenous Food Sovereignty, 4) Ecological Resilience, 5) Sustainable Food Policy, and 6) Food Connections.[4]

Each of the sub-projects operated independently but also informed work in the nodes and working groups. For example, the NWT node worked with Indigenous communities at the intersection of climate change and traditional food systems. While this work was unique in the FLEdGE network, it played a role in other nodes' community-informed research and provided examples to international partners. Two projects in British Columbia are also illustrative. In the first instance, an online policy database was created for the province that was searchable across several topics (e.g., land use, food supply chains, Indigenous food systems) and scales. The database was adopted for use in Alberta and is being adapted to Ontario. Second, academics at Kwantlen Polytechnic University led a COVID-19 food purchasing survey that was developed for British Columbia and was taken up by FLEdGE partners in Ontario, Quebec, and Atlantic Canada. These projects all demonstrate place-based diversity typical of community-defined research, as well as the capacity to be adapted in other locales.

---

[4] The Good Food principles are described in more detail at https://fledgeresearch.ca/.

The high quality and quantity of outputs illustrate what the network generated, and despite institutional pressures towards more traditional kinds of scholarship, included a wide range of audiences, formats, and venues.

Interviews

To add to the portrait of FLEdGE, sixteen semi-structured interviews with network members were conducted in early 2020 to qualitatively complement the review of SNA and outputs. The questions focused on the extent to which the interviewees had witnessed change in both the network and themselves over the course of their engagement. Participants were selected using the 2018 SNA results, and they represent a heterogeneous sample (e.g., university-affiliated, community partners, Canadian, international) and a range of depths of engagement (e.g., strong, moderate, minimal). Through member checking, participants were given the opportunity to review the notes and recordings from their interview and to request clarifications if needed. Transcripts were coded thematically, and a synthesis of the results are presented in this subsection using four broad categories that capture the overarching sentiments of participants.

Objectives and change

Participants who had been involved with FLEdGE for several years noted positive types of change within the network, including the evolution of the stated and actualized objectives, the style and logistics of governance and decision making, and the qualitative nature of interpersonal relationships. Many addressed the potential and expectations for ongoing work, whether formally or informally related to FLEdGE. While one interviewee referred to this as “FLEdGE 2.0,” another noted that “it’s not FLEdGE 2.0, and shouldn’t be FLEdGE 2.0, it’s fledglings 2.1, 2.3...” The latter framing was echoed by others who spoke of the foundation FLEdGE had provided to both themselves and their trainees to continue conducting community-engaged research. This sentiment was captured by one interviewee who had been a postdoctoral researcher during her engagement with FLEdGE: “There seems to have been quite a bit of capacity built among students, scholars, trainees, and community partners to move some of this work forward, even when this network of FLEdGE might not be funded any longer.”

Those participants who had been involved with the network, both during and before FLEdGE was established, noted that the objectives had transformed over time, and that this was viewed as appropriate though potentially challenging. The initial objectives and key goals (eventually articulated as the Good Food Principles) lent a kind of personality to FLEdGE, one that generated a sense of connection and affiliation. As one international member stated, “There was this sense of ‘We want to change the world…’ I felt that we were all there trying to create something new, to create something good.”

Increased breadth and diversity

The widening scope of FLEdGE over time facilitated the development of relationships with some community partners, while potentially limiting the involvement of others. "We felt so welcome and so able to engage however we *wanted* to engage," said one community partner, "but in other ways, it was probably a turn-off for people who wanted to know immediately, 'Well, what are the objectives, and what do you need from me, and what's my deliverable and when do you need it from me?'" Community-based participants pointed to an appreciation of developing and sharing useful tools, stories from the field, and research reports, which established an understanding that project outputs need not be limited to academic publications. Instead, accessible outputs like videos, newsletters, report cards, and blog posts—in addition to conventionally published material—mobilized knowledge in ways that were meaningful and applicable to a wide range of practitioners.

Over time, FLEdGE's common objectives were variably interpreted, depending on the context and needs of the collaborators involved. For example, as the Canadian federal government ramped up efforts to develop the Food Policy for Canada in 2017, FLEdGE members were able to allocate time and resources to track, consult on, and influence these developments. The FLEdGE network provided a valuable support structure for such opportunities, and enabled network members—particularly those whose research partnerships extended across provincial and international borders—to identify more locally relevant, opportunistic, and actionable objectives.

In parallel to the diversification of objectives, participants noted that the network governance became more *decentralized* over time. The geographic reach of the network expanded outward from the initial centrepoint of Southern Ontario, toward the West, East, and North coasts of Canada, as well as Latin America and Europe. The activation of regional nodes became an opportunity for local leadership and decentralized research partnerships to establish themselves, resulting in what one participant named as a "federal-style" governance arrangement. This included a "FLEdGE HQ" and a set of "first ministers," who exchanged information and findings to reinforce the core functioning and directions for the network. Concurrently, each of the regional nodes was empowered to enact and achieve locally determined objectives, having been given the authority and budget to do so.

In counterpoint, one interviewee commented that the decentralization of objectives and governance made FLEdGE somewhat unclear and confusing. As an agricultural scientist, he acknowledged that this perspective may have been partly due to his disciplinary background, and that those in the social sciences may have been more comfortable with such decentralization, given their diverse methods and capacity for engaging with multiple foci. Several interviewees who were identified as community partners, however, noted that this approach made it possible for them to engage actively with collaborative projects while still meeting the objectives of their own organization, be it a municipal authority, a community non-profit organization, or a consulting practice.

A network of networks

Interview participants repeatedly described the network as pluralistic. In the sense espoused by Bruno Latour and other post–actor-network theorists (Akama 2015; Latour 2005; Law & Hassard, 1999), the FLEdGE network did not occupy a pre-determined structure, but instead represented a set of evolving relationships. Participants spoke about these relationships being activated towards emergent needs, whether research opportunities or occasions to produce actionable outputs. Equally, participants noted the latent potential of the network also engendered an intangible sense of self-empowerment, the exchange of scholarly and practical credibility, and the fundamental value of fostering trust among individual people, communities, and organizations. One participant expressed this value in terms of what FLEdGE did not become, invoking some of the structures into which other academic research efforts evolve, such as "teams", "centres", and "institutes." In her words, "FLEdGE was very, very effective on that front, and it was precisely because it was exactly a network, it was envisioned as a network, it acted like a network. And it did all the things that networks are supposed to do. It didn't try to become an 'institute'."

Participants in both academic and community sectors noted that being part of the network had lent credibility to their past and current work, as well as given them personal confidence for future initiatives. Several interviewees identified the value in being exposed to disciplinary practitioners outside of their field, including becoming comfortable with, for example, the discourse of social sciences or the notion of bioregional food systems. Resoundingly, both on-the-ground practitioners and scholarly researchers expressed the importance of learning to translate their experiences into theoretical and applied knowledge, the formulation of policies, and the surfacing of links and barriers among regional perspectives. Knowing that their immediate experience was locally relevant and globally understandable, as well as the fact that their context was both different from and similar to others, supported the potential for this cross-sector translation.

Blurred boundaries

Participants' insights about the value of FLEdGE went beyond the immediate research results and actionable tools. They noted the network-of-networks approach, as team members occupied roles in multiple communities of practice. As a result, participants noted, they were able to cross-fertilize methods, frameworks of knowledge, and perspectives, leading to broader change within FLEdGE, their other "part-time" communities, and themselves as sites of knowledge. Comments emphasized that FLEdGE will exist beyond its funded timeframe, serving as a resource that can be reactivated when needed. Many saw the network as a community of like-minded colleagues; FLEdGE created "a critical mass in Canada, there's power in that."

Notable in a number of interviews was FLEdGE's generational impact on food research in Canada, particularly for the large number of graduate students and early-career researchers involved in and influenced by the network. Those with international experience also articulated that FLEdGE had highlighted the distinct threads of Canadian food scholarship and activism, including the importance of Indigenous partnerships and a focus on northern and First Nations food sovereignty.

The sociograms in the previous section offer a visualization of the growth of the FLEdGE network over time. Likewise, the description of the FLEdGE network's outputs provides an overview of some of the impacts of the collaborative, community-engaged research. Our interviews offer a complement, suggesting a decentralized governance structure and unbounded set of dynamics. Importantly, they also show ways that the relationships that made up the FLEdGE network pre-dated the formally funded research period, just as it is expected to persist into the future.

Discussion: A modular approach

Our combined findings demonstrate that the FLEdGE network has acted as a backbone organization to support, enhance, and sustain productive intersectoral collaboration and community-engaged research. It has generated flexible partnerships and facilitated productive collaborations that address at least some of the barriers previously identified in community-engaged research (Janes, 2016; Mullett, 2015; Stoecker, 2008). Network relationships in FLEdGE have intensified and expanded in ways that are both quantifiable and descriptive. FLEdGE has produced conceptual and theoretical insights as well as action-oriented initiatives, evident in the abundance of diverse research outputs and ultimately articulated in the six Good Food Principles. Beyond making theoretical and practical contributions to food systems scholarship and initiatives in the participating regions, the FLEdGE network connected to other networks to help build the food movement in Canada and beyond. The partnerships within the network were rooted in interdisciplinary, community-engaged, collaborative methodologies, flexibility, and critical reflexivity.

Our research suggests that taking a modular approach contributes to intersectoral research networks building more equitable and sustainable food systems. For FLEdGE, this included the diverse methodologies and methods that were accessible to both scholars and practitioners, and that were deployed in heterogeneous ways in response to different social and environmental contexts. Three main qualities of modularity inform our understanding of the way it played out within the FLEdGE network: 1) the capacity for modules to be arranged in new configurations while maintaining overall integrity of the network; 2) interfaces that allow modules to interact with and decouple from one another (including funding channels); and 3) the freedom for modules and their interfaces to be redesigned or discarded over time, in response to the evolving needs of project stakeholders (Campagnolo & Camuffo, 2010).

Accessible knowledge mobilization is an essential element of this approach, to ensure that research outcomes are meaningful to and actionable by all stakeholders (Phipps, 2011; Shields & Evans, 2012). Comprising a modular research/action network, FLEdGE can also be conceived as a module itself, one that was, is, and will be a component of a much broader and ongoing series of initiatives, movements, and trajectories of change.

Cross-pollination: Evolving network configurations

In contrast with the stricter definitions of modularity put forth in product development, software design, and management discourse, the modular nature of the FLEdGE network was evident in how component parts evolved through their exposure to others. That is, rather than remaining static, the FLEdGE 'modules' (e.g., human, processual, discursive) changed over time. This played out at multiple scales—that of the network as a whole, as well as within nodes, teams, and individuals. Both the participants and their initiatives were able to absorb or reinterpret certain characteristics of one another, a kind of cross-pollination that resulted in valuable points of articulation among the modules. This included increased familiarity with theoretical and methodological frameworks outside of a given researcher's experience (in the case of academic participants), as well as greater understanding of the relationality between on-the-ground practice and scholarly analysis. It also extended to the identification of commonalities and contrasts among diverse forms of Indigenous experience, and to the exposure of international researchers to the food realities facing Indigenous communities. The latent potential for future success became evident as well, as modules have 'detached' from the FLEdGE network in order to recombine with other initiatives or spawn new modular networks of their own. This points to the positive, long-term effects that FLEdGE may continue to bring about, in part due to its structural design and emergent nature.

Funding: Interaction and decoupling of modules

Modularity, evident in the interactions and decoupling in the network, was nurtured through funding structures (from SSHRC and other leveraged resources), which also allowed for the scope of FLEdGE to be sustained and expanded. Not all partners participated equally across the entire lifespan of FLEdGE. Participation ebbed and flowed depending on such practical issues as staffing, other organizational priorities, and competing demands on participants' time (across all sectors). Nonetheless, the duration of funding as a key resource for sustained partnerships (see Israel, et al., 2006; Wright et al., 2011) and wide distribution of resources allowed for iterative and modular networking and collaboration. The network's connections with other organizations and groups, such as CAFS and FSC, facilitated greater reach to strengthen collaboration and mobilize findings.

In addition, the SSHRC Partnership Grant was leveraged to secure additional institutional support, particularly within university settings. Upon reflection, the FLEdGE leadership also recognized that there may have been more opportunities to improve linkages with community-based organizations and small businesses that are sometimes decoupled from research networks' financial support through budget allocations. Although SSHRC funding is subject to spending restrictions[5], which limited FLEdGE's ability to offer monetary support to community organizations, network leads worked diligently with their university research offices and SSHRC officers to arrange for symbolic compensation in some instances. More work remains to be done in this respect, but even these small changes would not have been possible without institutional recognition of the value of FLEdGE partnership. While funding was limited (i.e., time bounded and amount awarded), the collaborations that developed the FLEdGE network predated the grant and evolved over six years to create new networks. In this way, research funding can serve as a kind of social investment by stimulating expansion of interactions with otherwise disconnected community networks. While FLEdGE-funded projects are officially completed, the relationships persist, and further work is being carried out within and beyond the partnerships fostered through the funding.

Autonomy and adaptability: Networks addressing needs of project stakeholders

FLEdGE produced a nimble, adaptable structure that enabled network participants to respond to context-specific changes and adapt to what was happening in the world and their immediate physical, social, and political environments. For instance, in 2017 when the Canadian government launched consultations to develop a national food policy, individuals and groups in the FLEdGE network were supported to contribute to the consultations, ensuring that they were able to represent their respective communities and corresponding positions. Similarly, when the COVID-19 pandemic began in 2020, different regional nodes were able to revise their research plans and respond to local needs. From the principal investigator to regional node leads and working group conveners, the deliberately decentralized structure of FLEdGE suggested that the administrative decision-makers (i.e., those who controlled the funding) trusted that projects would operate in a connected but independent manner, and this in turn allowed for greater participants' trust that those who had the administrative authority prioritized the partners' interests and needs, which was repeatedly noted by interview participants. Students and practitioners were encouraged to take initiative on various aspects of the research, from developing meaningful research questions to deciding on strategies to mobilize research findings, which minimized the risk of FLEdGE failing to respond to critical and timely research needs of respective nodes.

---

[5] In accordance with the standard SSHRC spending allowances, most of the budget was spent on student stipends, project coordination, and various meetings and information sharing efforts. Regional nodes had full autonomy over the funds distributed to them, so long as their spending met the SSHRC criteria.

Challenges: Empowering non-academic stakeholders

Community-engaged research and intersectoral collaborations require a great deal of time and energy. The FLEdGE core team knew from previous projects that redundancy of representation was key to stability. That is, if multiple individuals and groups are participating and sharing knowledge from the same region and/or sector, and one has to step back for a time, the network can rely on others for important input and direction. To phrase this in modularity terms, in this network, components can operate both independently as well as *inter*dependently. Still, maintaining participation over the course of several years is difficult in the climate of unreliable organizational funding and labour precarity. Continuity and stability were only possible because of team members with secure positions and dedicated staff—dedicated both in the sense that they worked primarily or exclusively with FLEdGE, and dedicated in their own commitment to the FLEdGE core principles. This highlights that a modular network can benefit from a substrate (or backbone) at its foundation for communication, interaction, and resources.

Despite a high level of awareness among academic researchers that power imbalances often plague community-engaged research (Knezevic et al., 2014), and the deliberate effort to acknowledge and minimize them, those imbalances did not disappear. In fact, such deliberate efforts, while often effective, also brought the imbalances to the surface and made them more salient. This is clearly demonstrated in the findings by much stronger interactions among academics, and weaker interactions among academics and community-based practitioners. This disconnect increased as the network grew in size and scope. That points in part to power-related tensions that surfaced because participants needed to balance the competing demands of FLEdGE and their workplaces. In academic settings, there remains a lack of institutional understanding of community-engaged research, and universities continue to undervalue this type of research (made most obvious through the academic "productivity" metrics that claim to measure research "impact," which we consider important, but not the sole or even the primary way to measure research impact). In practitioner settings, community needs are rightfully prioritized and contributions to research often happen 'off the side of the desk', meaning that community members' contributions to FLEdGE were not always part of their paid work time. This was further complicated by research funding regulations that make it difficult and sometimes impossible to adequately compensate community contributions to knowledge creation and mobilization. Nevertheless, the node leads worked closely with their institutions to push for greater flexibility on spending and compensate community partners when possible.

Conclusion

In this paper we have presented a mixed-methods study of the FLEdGE intersectoral community-engaged research/action network and proposed that a modular approach can enhance networking opportunities and impact. Our collaborative insights focused on three key areas, including: cross-pollination and the evolving network configurations; funding to support the interaction and decoupling of modules; and autonomy and adaptability for networks to address the needs of stakeholders. While the concept of modularity had not previously been used to describe these types of relationships, we propose that it can be considered as an organizing structure. Modular approaches in the context of community-engaged research networks enable diverse participants and their projects to operate with autonomy while also identifying and building on shared goals and objectives. Considering the complex social and ecological challenges within food systems, viable solutions demand collaboration along with diverse and critical perspectives that get to the root of equity and sustainability. Recognizing the diverse ways of knowing and the wealth of experiences of community-engaged researchers and practitioners, FLEdGE's modular nature led to the development of a dynamic network and impactful outcomes. Testament to this is evidence of the networks' growth over time, and its potential longevity. Moreover, as the funding for the FLEdGE network came to an end, many of the projects and the relationships took on a life of their own, leading to new research projects and contributing to building food movements across Canada and beyond. To be clear, the modular nature alone is not a guarantee for successful collaboration, but our findings suggest that it can facilitate a rewarding, adaptable partnership.

Beyond learning about the FLEdGE network, this research raised some important questions for future study. What is the right size and scope for an intersectoral research network? While there is no one answer to this question, our research showed that as the network grew, it was challenging to maintain connections among all the members. There are also questions of scale for networks that aim to be regionally focused yet bring on additional partners from other regions and internationally. We encourage others to reflect on these questions as a negotiation of process versus outcomes and to consider how best to maintain the relationships that are at the core of a network. We suggest that studying and critically reflecting on the structure and relationships that make up intersectoral research networks are vital parts of enhancing their operations and impacts. Formative and evaluative study should be built into these kinds of initiatives from the outset, and adequate energy and resources should be allocated to ensure their continuity. Furthermore, research networks might evaluate the impact of intersectoral community-engaged research after funding is completed, to assess the impact and evolution of the outcomes and relationships. Conducting an additional round of SNA, three to five years afterwards, might yield important results to demonstrate how relationships shift over time.

Acknowledgements: We gratefully acknowledge the contributions from Kirstie Cadger and Karen Arnold who assisted with the social network analysis data analysis as well as Amanda Di Batista and Research Assistants Elena Christy and Heather Reid. We appreciate the time and energy of FLEdGE members who responded to the surveys, participated in the interviews, and played such an active role in our research/action projects. We also acknowledge support from the Laurier Centre for Sustainable Food Systems and financial contributions from the Social Sciences and Humanities Research Council of Canada (SSHRC).

References

About FLEdGE. (n.d.). FLEdGE. https://fledgeresearch.ca/about/.

Addy, N. A., Poirier, A., Blouin, C., Drager, N., & Dubé, L. (2014). Whole-of-society approach for public health policymaking: a case study of polycentric governance from Quebec, Canada. *Annals of the New York Academy of Sciences*, *1331*(1), 216-229.

Akama, Y. (2015). Being Awake to Ma: Designing in between-ness as a way of becoming with. *CoDesign*, 11(3–4), 262–274.

Albala, K. (Ed.). (2013). *Routledge international handbook of food studies*. New York: Routledge.

Alcantara, L., Harper, G., Keys, C., & The Adolescent Medicine Trials Network for HIV/AIDS Interventions. (2015). 'There's gotta be some give and take': Community partner perspectives on benefits and contributions associated with community partnerships for youth. *Youth and Society*, *47*(4), 462–85.

Andrée, P., Clark, J. K., Levkoe, C. Z., & Lowitt, K. (Eds.). (2019). *Civil society and social movements in food system governance*. New York: Routledge.

Andrée, P., Kepkiewicz, L., Levkoe C. Z., Brynne, A., & Kneen, C. (2016). Learning, food and sustainability in community-campus engagement: Teaching and research partnerships that strengthen the food sovereignty movement. In: J. Sumner (ed.). *Learning, Food and Sustainability: Sites for Resistance and Change* (pp.133-153). Palgrave.

Atkins, P., & Bowler, I. R. (2016). *Food in society: Economy, culture, geography*. Routledge.

Baldwin, C. Y., & Clark, K. B. (2000). *Design rules: The Power of modularity*. MIT Press.

Baquet, C. (2012). A model for bidirectional community-academic engagement (CAE): Overview of partnered research, capacity enhancement, systems transformation, and public trust in research. *Journal of Health Care for the Poor and Underserved*, *23*(4), 1806–824.

Beckman, M., Penney, N., & Cockburn, B. (2011). Maximizing the impact of community-based research. *Journal of Higher Education Outreach and Engagement, 15*(2), 83–103.

Blay-Palmer, A., Conaré, D., Meter, K., Di Battista, A., & Johnston, C. (2019). *Sustainable food system assessment: Lessons from global practice*. Taylor and Francis.

Blay-Palmer, A., Santini, G., Dubbeling, M., Renting, H., Taguchi, M., & Giordano, T. (2018). Validating the city region food system approach: Enacting inclusive, transformational city region food systems. *Sustainability*, *10*(5), 1680.

Bortolin, K. (2011). Serving ourselves: How the discourse on community engagement privileges the university over the community. *Michigan Journal of Community Service Learning, 18*(1), 49–58.

Bradley, K., Gregory, M., Armstrong, J., Arthur, M., & Porter, C. (2018). Graduate students bringing emotional rigor to the heart of community-university relations in food dignity. *Journal of Agriculture, Food Systems, and Community Development*, *8*(A), 221–36.

Brady, J., Levkoe, C. Z., & Szanto, D. (2015). Borders, boundaries, and becoming food studies: Looking back, pushing forward. *Canadian Food Studies / La Revue Canadienne Des Études Sur l'alimentation, 2*(1): 4–8.

Bringle, R. G., & Hatcher, J. A. (2002). Campus-community partnerships: The terms of engagement. *Journal of Social Issues*, *58*(3), 503–516.

Butcher, J., Bezzina, M., & Moran, W. (2011). Transformational partnerships: A new agenda for higher education. *Innovative Higher Education, 36*, 29–40.

Campagnolo, D., & Camuffo, A. (2010). The concept of modularity in management studies: A literature review. *International Journal of Management Reviews*, *12*(3), 259–283.

Changfoot, N., Andrée, P., Levkoe C. Z., Nilson, M., & Goemans, M. (2020). Engaged scholarship in tenure and promotion: Autoethnographic insights from the fault lines of a shifting landscape. *Michigan Journal of Community Service Learning, 26*(1), 239-264.

Checkoway, B. (2015). Research as community-building: Perspectives on the scholarship of engagement. *Gateways: International Journal of Community Research and Engagement, 8*(1), 139–149.

Chupp, C., & Joseph, M. (2010). Getting the most out of service learning: Maximizing student, university and community Impact. *Journal of Community Practice, 18*, 190- 212.

Curwood, S. E., Munger, F., Mitchell, T., Mackeigan, M., & Farrar, A. (2011). Building effective community-university partnerships: Are universities truly ready? *Michigan Journal of Community Service Learning*, *17*(2), 15–26.

Dempsey, S. E. (2010). Critiquing community engagement. *Management Communication Quarterly, 24*(3), 359–390.

Dorow, S., Stack-Cutler, H., & Varnhagen, S. (2011). *Community perspectives on partnering with the University of Alberta: The 2009 survey of local Edmonton organizations*, University of Alberta, Edmonton, AB.

Flicker, S. (2008). Who benefits from community-based participatory research? A case study of the Positive Youth Project. *Health Education and Behavior*, *35*(1), 70–86.

Frandsen, T. (2017). Evolution of modularity literature: A 25-year bibliometric analysis. *International Journal of Operations and Production Management*, 37(6), 703–747.

Frank, L. (2014). Reflections of a food studies researcher: Connecting the community-university-Policy divide….becoming the hyphens! *Canadian Food Studies/La Revue canadienne des études sur l'alimentation*, *1*(1), 88–98.

Goemans, M., Levkoe C. Z., Changfoot, N., & Andrée, P. (2018). Learning to "walk the talk": Reflexive evaluation in community-first engaged research. *Engaged Scholar Journal: Community-Engaged Research, Teaching, and Learning*, *4*(2), 61-84.

Grain, K. M., & Lund, D. (2016). The *social justice turn*: Cultivating "critical hope" in a time of despair. *Michigan Journal of Community Service Learning, 23*(1), 45–59.

Greenhalgh, T., Jackson, C., Shaw, S., & Janamian, T. (2016). Achieving research impact through co-creation in community-based health services: Literature review and case study. *The Millbank Quarterly, 94*(2), 392–429.

Hart, M. A., Straka, S., & Rowe, G. (2017). Working across contexts: Practical considerations of doing Indigenist/anti-colonial research. *Qualitative Inquiry, 23*(5), 332–342.

Incite! Women of Colour Against Violence. (2007). *The revolution will not be funded.* Duke University Press.

Israel, B., Schulz, A., Parker, E. A., & Becker, A. E. (1998). Review of community-based research: assessing partnership approaches to improve public health. *Annual Review of Public Health 19*, 173–202.

Israel, B. A., Krieger, J., Vlahov, D., Ciske, S., Foley, M., Fortin, P., Guzman, J. R., Lichtenstein, R., McGranaghan, R., Palermo, A., & Tang, G. (2006). Challenges and Facilitating Factors in Sustaining Community-Based Participatory Research Partnerships: Lessons Learned from the Detroit, New York City and Seattle Urban Research Centers. *Journal of Urban Health*, *83*, 1022–1040.

Jagosh, J., Bush, P. L., Salsberg, J., Macaulay, A. C., Greenhalgh, T., Wong, G., Cargo, M., Green, L. W., Herbert, C. P., & Pluye, P. (2015). A realist evaluation of community-based participatory research: partnership synergy, trust building and related ripple effects. *BMC Public Health*, *15*(1), 725.

Janes, J. E. (2016). Democratic encounters? Epistemic privilege, power, and community-based participatory action research. *Action Research*, *14*(1), 72–87.

Kania, J., & Kramer, M. (2011). Collective impact. *Stanford Social Innovation Review,* Winter 2011. http://leveragingourstrengths.ca/reading/collective_impact.pdf

Katz, J. S., & Martin, B. R. (1997). What is research collaboration? *Research Policy*, *26*(1), 1-18.

Keating, L., & Sjoquist, D. (2000). The use of an external organization to facilitate university-community partnerships. *Cityscape: A Journal of Policy Development and Research*, *5*, 141–57.

Kepkiewicz, L., Levkoe, C. Z., & Brynne, A. (2018). "Community first" for whom? Reflections on the possibilities and challenges of community-campus engagement from the Community Food Sovereignty Hub. *Engaged Scholar Journal, 4*(2), 43–60.

Knezevic, I., Blay-Palmer, A., Levkoe, C. Z., Mount, P., & Nelson, E. (Eds.). (2017). *Nourishing communities: From fractured food systems to transformative pathways*. Springer.

Knezevic, I., Hunter, H., Watt, C., Williams, P., & Anderson, B. (2014). Food insecurity and participation: A critical discourse analysis. *Critical Discourse Studies 11*(2), 230-245.

Koç, M., Sumner, J., & Winson, A. (2016). *Critical perspectives in food studies*. Oxford University Press.

Lantz, P. M., Viruell-Fuentes, E., Israel, B. A., Softley, D., & Guzman, R. (2001). Can communities and academia work together on public health research? Evaluation results from a community-based participatory research partnership in Detroit. *Journal of Urban Health*, *78*(3), 495-507.

Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory*. Oxford University Press.

Law, J., & Hassard, J. (1999). *Actor network theory and after*. Wiley-Blackwell.

Laforge, J. M., Dale, B., Levkoe, C. Z., & Ahmed, F. (2020). The Future of agroecology in Canada: Embracing the politics of food sovereignty. *Journal of Rural Studies, online,* 1-9.

Levkoe C. Z., & Kepkiewicz, L. (2020). Questioning the impact of impact: Evaluating community-campus engagement as contextual, relational and process-based. *Michigan Journal of Community Service Learning*, *26*(1), 219-238.

Levkoe, C. Z., Ray, L., & Mclaughlin, J. (2019). The Indigenous Food Circle: Reconciliation and resurgence through food in Northwestern Ontario. *Journal of Agriculture, Food Systems, and Community Development*, *9*(B), 1-14.

Levkoe C. Z., & Wilson, A. (2019). Policy engagement as prefiguration: Experiments in food policy governance through the national food policy dialogue in Canada. In: Andrée, P. Clark, J.K., Levkoe, C. Z., Lowitt, K. (Eds.). *Civil Society and Social Movements in Food System Governance* (pp. 101-123). Routledge, Series on Food, Society and Environment.

Levkoe, C. Z., & Blay-Palmer, A. (2018). Food Counts: Food systems report cards, food sovereignty and the politics of indicators. *Canadian Food Studies/La Revue canadienne des études sur l'alimentation*, *5*(3), 49-75.

Levkoe C. Z., & Stack-Cutler, H. (2018). Brokering community–campus partnerships: An analytical framework. *Gateways: International Journal of Community Research and Engagement, 11*(1), 18-36.

Levkoe C. Z., Lowitt, K., & Nelson, C. (2017). "Fish as food": Exploring a food sovereignty approach to small-scale fisheries. *Marine Policy,* 85, 65-70.

Levkoe C. Z., Andrée, P., Bhatt, V., Brynne, A., Davison, K., Kneen, C., & Nelson, E. (2016). Collaboration for transformation: Community–campus engagement for just and sustainable food systems. *Journal of Higher Education, Outreach and Engagement, 20*(3), 23-61.

Lindamer, L., Lebowitz, B., Hough, R., Garcia, P., Aguirre, A., Halpain, M., Depp, C., & Jest, D. (2009). Establishing an implementation network: Lessons learned from community-based participatory research. *Implementation Science*, *4*(17), 1-7.

Lowitt, K., Levkoe, C. Z., & Nelson, C. (2019). Where are the fish? Using a "fish as food" framework to explore the Thunder Bay area fisheries. *Northern Review, 49*, 93-118.

Marullo, S., & Edwards, B. (2000). From charity to justice: The potential of university-community collaboration for social change. *American Behavioral Scientist, 43*(5), 895–912.

McBride, A. M., Brav, J., Menon, N., & Sherraden, M. (2006). Limitations of civic service: Critical perspectives. *Community Development Journal, 41*(3), 307–320.

McNall, M., Reed, C., Brown, R., & Allen, A. (2009). Brokering community-university engagement. *Innovative Higher Education*, *33*, 317–31.

Mullett, J. (2015). Issues of equity and empowerment in knowledge democracy: Three community-based research examples. *Action Research*, *13*(3), 248–261.

Naqshbandi, M., Harris, S. B., Macaulay, A. C., Comeau, J., Piché, J., & Montour-Lazare, D. (2011). Lessons learned in using community-based participatory research to build a national diabetes collaborative in Canada. *Progress in Community Health Partnerships: Research, Education, and Action*, *5*(4), 405-415.

Newman, M. E. J. (2006). Modularity and community structure in networks. *Proceedings of the National Academy of Sciences*, *103*(23), 8577–8582.

Ochocka, J., & Janzen, R. (2014). Breathing life into theory: Illustrations of community-based research—Hallmarks, functions, and phases. *International Journal of Community Research and Engagement, 7*(1)*,* 18–33.

O'Meara, K., Eatman, T., & Petersen, S. (2015). Advancing engaged scholarship in promotion and tenure: A roadmap and call for reform. *Liberal Education, 101*(3), 52–57.

Ostrom, E. (2010). Beyond markets and states: polycentric governance of complex economic systems. *American Economic Review*, *100*(3), 641-72.

Peacock, D., Goemans, M., Kim, I., Andrée, P., Levkoe, C.Z., Changfoot, N., & Kim, I. (2020). Accounting for community impact: Thinking across the spaces and times of a seven-year, pan-Canadian community-based research project. *Michigan Journal of Community Service Learning*, *26*(1), 175-196.

Petri, A. (2015). Service-learning from the perspective of community organizations. *Journal of Public Scholarship in Higher Education*, *5*, 93–110.

Phipps, D. (2011). A report detailing the development of a university-based knowledge mobilization unit that enhances research outreach and engagement. *Scholarly and Research Communication*, *2*(2), 020502.

Phipps, D., Johnny, M., & Wedlock, J. (2015). An institutional process for brokering community-campus research collaborations. *Engaged Scholar Journal*, *1*(1), 69–86.

Reynolds, K., Block, D., & Bradley, K. (2018). Food justice scholar-activism and activist-scholarship: Working beyond dichotomies to deepen social justice praxis. *ACME: An International E-Journal for Critical Geographies*, *17*(4), 988-998.

Sandy, M., & Holland, B. (2006). Different worlds and common ground: Community partner perspectives on campus-community partnerships. *Michigan Journal of Community Service Learning*, *13*(1), 30–43.

Savan, S., & Sider, D. (2003) Contrasting approaches to community-based research and a case study of community sustainability in Toronto, Canada. *Local Environment*, *8*(3), 303-316.

Schwartz, K., Weaver, L., Pei, N., & Miller, A. (2016). Community-campus partnerships, collective impact, and poverty reduction. *Community Development*, *47*(2), 167–80.

Sheridan, M. P., & Jacobi, T. (2014). Critical feminist practice and campus-community partnerships: A review essay. *Feminist Teacher, 24*(1–2), 138–150.

Shields, J., & Evans, B. (2012). Building a policy-oriented research partnership for knowledge mobilization and knowledge transfer: The case of the Canadian Metropolis Project. *Administrative Sciences*, *2*(4), 250-272.

Simba, M., & Spring, A. (2017). Growing a garden in Kakisa. *Northern Public Affairs*, *5*(1), 24-26.

Smith, L. T. (2002). *Decolonizing methodologies: Research and Indigenous Peoples.* St. Martins Press.

Snowden, D. J., & Boone, M. E. (2007). A leader's framework for decision making. Harvard Business Review, *85*(11), 68–76.

Sobrero, P., & Jayaratne, K. S. U. (2014). Scholarship perceptions of academic department heads: Implications for promoting faculty community engagement scholarship. *Journal of Higher Education Outreach and Engagement, 18*(1), 123–153.

Stoecker, R. (2008). Challenging institutional barriers to community-based research. *Action Research*, *6*(1), 49–67.

Strand, K. J., Cutforth, N., Stoecker, R., Marullo, S., & Donohue, P. (2003). *Community-based research and higher education: Principles and practices*. John Wiley and Sons.

Taylor, S. M., & Ochocka, J. (2017). Advancing community-based research in Canada. *International Journal of Knowledge-Based Development, 8*(2), 183–200.

Tennyson, R. (2014). New mechanisms for brokering collaboration: The emergence of partnership brokering units and organisations. *Betwixt and Between: The Journal of Partnership Brokering*, *3.*

Varcoe, C. (2006). Doing participatory action research in a racist world. *Western Journal of Nursing Research, 28*(5), 525–540.

Vernon, A., & Ward, K. (1999). Campus and community partnerships: Assessing impacts and strengthening connections. *Michigan Journal of Community Service Learning*, *6*(1), 30–37.

Wakefield, S. E. (2007). Reflective action in the academy: Exploring praxis in critical geography using a "food movement" case study. *Antipode*, *39*(2), 331- 354.

Ward, K., & Wolf-Wendel, L. (2000). Community-centered service learning: Moving from doing for to doing with. *American Behavioral Scientist*, *43*(5), 767–780.

Wright, K. N., Williams, P., Wright, S., Lieber, E., Carrasco, S. R., & Gedjeyan, H. (2011). Ties that bind: Creating and sustaining community-academic partnerships. *Gateways: International Journal of Community Research and Engagement, 4*, 83-99.

Vol. 8 No. 2, pp. 48-79 August 2021

Canadian Food Studies
La Revue canadienne des études sur l'alimentation

Original Research Article

Mapping food policy groups: Understanding cross-sectoral network building through social network analysis

Charles Z. Levkoe[a*] Rebecca Schiff[a], Karen Arnold[a], Ashley Wilkinson[a], Karen Kerk[b]

[a] Lakehead University
[b] Food Strategy

Abstract

Over the past decades, there has been a rapid expansion in the number of Food Policy Groups (FPG) (including food policy councils, strategies, networks, and informal alliances) operating at municipal and regional levels across North America. FPGs are typically established with the intent of bringing together food systems stakeholders across private (e.g., small businesses, industry associations), public (e.g., government, public health, postsecondary institutions), and community (e.g., non-profits and charitable organizations) sectors to develop participatory governance mechanisms. Recognizing that food systems challenges are too often addressed in isolation, FPGs aim to instill integrated approaches to food related policy, programs, and planning. Despite growing interest, there is little quantitative or mixed methods research about the relationships that constitute FPGs or the degree to which they achieve cross-sectoral integration. Turning to Social Network Analysis (SNA) as an approach for understanding networked organizational relationships, we explore how SNA might contribute to a better understanding of FPGs. This paper presents results from a study of the Thunder Bay and Area Food Strategy (TBAFS), a FPG established in 2007 when an informal network of diverse organizations came together around shared goals of ensuring that municipal policy and governance supported healthy, equitable and sustainable food systems in the Thunder Bay region in Ontario, Canada. Drawing on data from a survey of TBAFS organizational members, we suggest that SNA can improve our understanding of the networks formed by FPGs and enhance their goals of cross-sectoral integration.

*Corresponding author: clevkoe@lakeheadu.ca
DOI: 10.15353/cfs-rcea.v8i2.443
ISSN: 2292-3071

Keywords: Community-engaged research; FLEdGE; food systems; modularity; social network analysis

Introduction

Over the past decades, there has been a rapid expansion in the number of Food Policy Groups[1] (FPG) operating at municipal and regional levels in North America. FPGs are typically established with the intent of bringing together food systems stakeholders across private (e.g., small businesses, industry associations), public (e.g., government, public health, postsecondary institutions), and community (e.g., non-profits and charitable organizations) sectors to develop participatory governance mechanisms. Recognizing that food systems challenges are too often addressed in isolation, FPGs aim to instill integrated approaches to food related policy, programs, and planning. Paralleling this expansion, there has been an increase in research to document their efforts (Santo et al., 2020). However, despite this growing interest, there is little quantitative or mixed methods research about the relationships that constitute FPGs or the degree to which they achieve their goals of cross-sectoral integration. Social Network Analysis (SNA) is an approach for understanding networked organizational relationships. It has been used in food movement scholarship to document the quantitative and qualitative features of networks and for understanding the comparative successes and impacts of these efforts (Dharmawan, 2015; Levkoe & Wakefield, 2014; Luxton & Sbicca, 2020). In the broadest sense, SNA can be described as the investigation of relationships among individuals and/or groups in order to identify and interrogate social structures. In this paper, we utilize a case study approach to explore how SNA might contribute to a better understanding of cross-sectoral network building in an FPG with the aim of enhancing participatory food systems governance.

Our research and analysis focus on a case study of the Thunder Bay and Area Food Strategy (TBAFS), an FPG located in Northwestern Ontario, Canada. The establishment of the TBAFS can be traced to 2007, when an informal network of diverse organizations came together around shared goals of ensuring that municipal and regional policy and governance supported healthy, equitable, and sustainable food systems in the Thunder Bay region. In 2008, the Thunder Bay Food Charter was endorsed by the Thunder Bay City Council, the District Social Services Board, and thirty-three other local governments, organizations, and businesses. This became the foundation for the TBAFS that eventually received official endorsement from the City of Thunder Bay and five rural municipalities in 2014.

---

[1] We use *Food Policy Groups* in this paper as an inclusive term to refer to the diverse range of groups addressing food systems governance (e.g., policy, planning, and programming) at various scales. This includes those using terminology such as “council”, “committee”, “commission”, “alliance”, “coalition”, “advisory”, “network”, “strategy”, “charter”, and “roundtable”, among others.

Drawing on data from a survey of TBAFS organizational members, we suggest that using SNA can improve our understanding of the networks formed by FPGs and can enhance their goals of cross-sectoral integration. In this paper, we highlight the results from our SNA and point to its effectiveness along with its limitations. This research speaks directly to the Food: Locally Embedded, Globally Engaged (FLEdGE) good food principle, food policy at all levels (see fledgeresearch.ca).

As alluded to in the introduction to this themed issue of *Canadian Food Studies*, FPGs are an essential part of developing multi-scale and cross-cultural collaborations within food systems governance and are rooted in the place-based needs and assets of communities.

Food policy groups

Building networks and integrating across sectors

The concept of an FPG engaging stakeholders from a wide range of sectors and employing a food systems approach emerged in the early 1980s with the establishment of the Knoxville/Knox County (Tennessee) Food Policy Council. In the 1990s and early 2000s, similar alliances were established across the United States, Canada, Australia, and the United Kingdom with the goal of developing participatory governance mechanisms to advance a comprehensive approach to food systems challenges (Harper et al, 2009; Schiff, 2007). In the past two decades, however, the number of FPGs has grown substantially. As of March 2020, the Food Policy Networks project (operated through the Johns Hopkins Center for a Livable Future) identified well over 350 Food Policy Councils across North America[2] (Centre for a Livable Future, n.d.). Recognizing the value of FPGs, following the Federal Government's launch of the Food Policy for Canada in 2019, a Food Policy Advisory Council was established and announced in early 2021 to support collaboration and cross-sectoral engagement.

FPGs differ in their structures and activities. Some are embedded within public institutions, while others operate independently as non-profit organizations or alliances. Some focus explicitly on policy and planning, while others focus on coordinating and amplifying their membership or supporting the design and implementation of new programs. However, most FPGs share some key defining characteristics that distinguish them from other types of food systems organizations or networks (Schiff, 2007). First, FPGs use a cross-sectoral or "whole of food systems" approach, with a focus on integrating programs and/or policy across its membership and the various sectors of the food system.

---

[2] This is a directory that includes primarily food policy councils and not all groups meeting our broader description of FPGs.

This entails moving beyond singular issues and/or elements to consider the entire food chain along with associated social and environmental factors. Second, FPGs bring together a wide range of representatives from a diversity of sectors. FPG members aim to have equitable decision-making roles and work towards a food systems agenda. Third, FPGs are place-based, meaning that each member brings specific experiences to collectively address a range of issues related to their municipality
and/or region.

FPGs can be considered a type of social networking organization, meaning that they facilitate inter-organizational collaboration and aim to identify a common agenda among their diverse membership (Levkoe, 2014; Schiff, 2008). Members typically work towards their organization's mandate while also committing to an overall goal of more equitable and sustainable food systems. The existing body of literature on FPG partnerships reveals valuable insights about building networks and contributing to integration across food systems sectors. Despite common food systems goals, diversity among the partnerships and within the group's composition is essential (Walsh et al., 2015). Having cross-sectoral engagement is a vital part of cultivating a broad range of perspectives and skills and is essential for fostering critical analysis. Studies of FPGs have demonstrated that diversity in experience and perspective can lead to greater innovation and increase social capital (Ilieva, 2016; McCartan & Palermo, 2017).

Many FPGs struggle to build a diverse membership (Bassarab et al., 2019; Boden and Hoover, 2018; Sands et al., 2016). For example, workers across the food chain, Indigenous peoples, and anti-racism groups are often missing in FPG membership. The absence of these important voices creates several challenges for FPGs, including the potential for a lack of ideological diversity, an inability to address issues of equity, and a limited understanding of community needs. Additionally, studies have shown that many FPGs are predominantly composed of white, middle-class professionals from similar socioeconomic and educational backgrounds (Packer, 2014; Sands et al., 2016). Packer (2014) argues that, when combined, these limitations can lead to an "alienating form of 'participation'" (p. 10) that appeals to a specific group of individuals and limits the FPG's ability to represent the community, therefore decreasing its impact. Overall, ensuring FPGs have a diverse membership has been identified as a significant contribution to their success (Clancy et al., 2008; De Marco et al., 2017; Dharmawan, 2015; Schiff, 2008).

FPGs also benefit from diverse extra-organizational partnerships (De Marco et al., 2017; Ilieva, 2016). Building strong relationships within existing networks and with groups beyond those networks has multiple benefits. These include, for example, advancing government involvement and increasing financial support (Coplen & Cuneo, 2015; Clayton et al., 2015; Ilieva, 2016; Sands et al., 2016; Schiff & Brunger, 2015). Partnerships with government leaders may be especially valuable in increasing legitimacy and supporting policy-related objectives (Bassarab et al., 2019; Clayton et al., 2015; Gupta et al., 2018; Packer, 2014).

FPGs that had the support of government agencies reported more collaboration with government than independent groups, and they cite this engagement as a key factor in their success (Clancy et al., 2008; Schiff, 2007). Furthermore, partnerships with policy experts can be valuable for engaging in high-level policy work (Clayton et al., 2015, Ilieva, 2016). Health-related organizations can also play a central role in FPG activities. In fact, many FPGs originated from within areas of public health and nutrition (Dahlberg, 1994; Schiff, 2007; Yeatman, 1994). Ensuring strong relationships with health-related organizations has also been identified as a successful strategy for many FPGs via greater integration (Jablonski et al., 2019; Neff et al., 2015; O'Hara & Palmer, 2014; Sands et al., 2016).

Overall, strategic partnerships with government and health-related organizations can broaden an FPG's network with access to key stakeholders and support structures (Gupta et al., 2018). Mobilizing stakeholders from diverse sectors, the Holyoke Food and Fitness Policy Council (HFFPC) and the Toronto Food Policy Council (TFPC) were able to have greater impacts in their communities. In the case of the HFFPC, change involved working with local farmers, parents, and non-profits to improve the school food system (Sands et al., 2016). Similarly, the TFPC collaborated with other organizations on projects such as rooftop gardens to affect change and provide new opportunities to a range of community members (Blay-Palmer, 2009). These examples are a testament to what can be achieved through intentionally building integrated networks. Thus, it appears that the effectiveness of FPGs is impacted by the extent and composition of the social networks in which they operate. As such, assessing and understanding the social networks that constitute FPGs could provide valuable insight for more effective configuration and operation. SNA can be an effective tool for doing so (Scott, 1988).

Social network analysis

As the effects of social context on human behaviour have become more apparent, many social science scholars have included SNA in their research (Borgatti et al., 2009; Carrington et al., 2005). For example, in social movement studies, SNA has been used to explore the mobilization of resources and the ways that organizations cultivate collaborative networks to advance their goals (Diani, 2002; Diani & McAdam, 2003; Krinsky & Crossley, 2014). In most cases, SNA involves mapping a social network as a group of actors (or nodes) whose relationships are represented by the lines (called ties or edges) between them (Scott & Carrington, 2011). A node may represent an individual person or a group of people (an organization, company, etc.). Network maps are compiled by uploading data into network analysis software, where layout algorithms present them visually in the form of a sociogram. The software is further used to model and display various statistical measurements that analyze the structures of the network.

These statistics are based on a branch of mathematics known as graph theory (West, 2001). SNA shows how a diverse set of actors is connected. The pattern of their interactions reveals information about individual node behaviour as well as the structure of the network as a whole. Network statistics quantify this information. The number of ties a node has with others in the network is called its *degree*. In an *undirected* network, these ties are reciprocal. In a *directed* network, such as the TBAFS, this is further broken down into *indegree* (relationships named by other network members) and *outdegree* (relationships named by that actor). *Path length* measures the number of steps between any two nodes in the network. Two nodes connected by a tie have a path length of 1. The *average path length* is applied across all pairs of nodes in the network. A node's *neighbourhood* includes all nodes to which it is directly connected (Newman, 2003).

Other statistics examine the way nodes group together. The *clustering coefficient* measures the proportion of a node's neighbourhood that are also connected with each other. If they are all interconnected, the clustering coefficient is one. On the other hand, if none of the neighbouring nodes are connected, the clustering coefficient is zero. When this calculation is applied across the whole network, it results in the *average clustering coefficient*. When the average clustering coefficient is high, there are many clusters of members who are connected to each other, and therefore they are more likely to interact (Newman, 2003).

Communities are clusters of nodes that have many ties within them but fewer ties with other clusters in the network. The *modularity* statistic reveals these communities by comparing the pattern of connections in the network to what it would look like if the ties were randomly distributed. The algorithm does this by retaining the number of connections that each node has but distributing them randomly. In a structured community within the network, there are more connections among particular nodes than in the random distribution (Newman, 2006). Modularity scores can range from negative one to one. A value greater than zero means that there are more ties between nodes in the identified communities than would appear by chance while negative values mean there are fewer (Newman & Girvan, 2004). The higher the value, the more isolated the community is from the rest of the network. Previous studies have shown that small networks with optimal community divisions have modularity scores in the 0.381 to 0.526 range (Newman, 2006; Zachary, 1977).

Two additional measures used in our case study are *cohesion* and *centrality*. Network cohesion, or the interconnectedness of a network, is measured in three ways – *distance*, *reachability* and *density* (Hawe et al., 2004). Network distance is the shortest path between any two nodes and when applied to the most distant two actors is known as the network's *diameter*. Reachability refers to whether or not all actors have access to one another via pathways of links. Density is one of the most commonly used measures and can assess the total number of ties in a network relative to the number of all possible ties.

Centrality measures can reveal important nodes. For example, nodes with a high *betweenness centrality* lie on pathways between nodes which are otherwise unconnected (Newman, 2005).

These nodes can act as bridges. Identifying actors with a high betweenness value allows for the identification of those in a strategic position to help build relationships. Migliore et al. (2014) conducted a study on social embeddedness in Italy to understand the success and growth of food community networks. They found that the betweenness statistic identified which groups contributed most to mediating information. Betweenness centrality can also identify bridging organizations with more (or less) control of resource flow in uneven collaborative networks. For example, Sbicca et al.'s (2019) study of the Denver municipal food movement illustrated where member organizations differed in their power and influence.

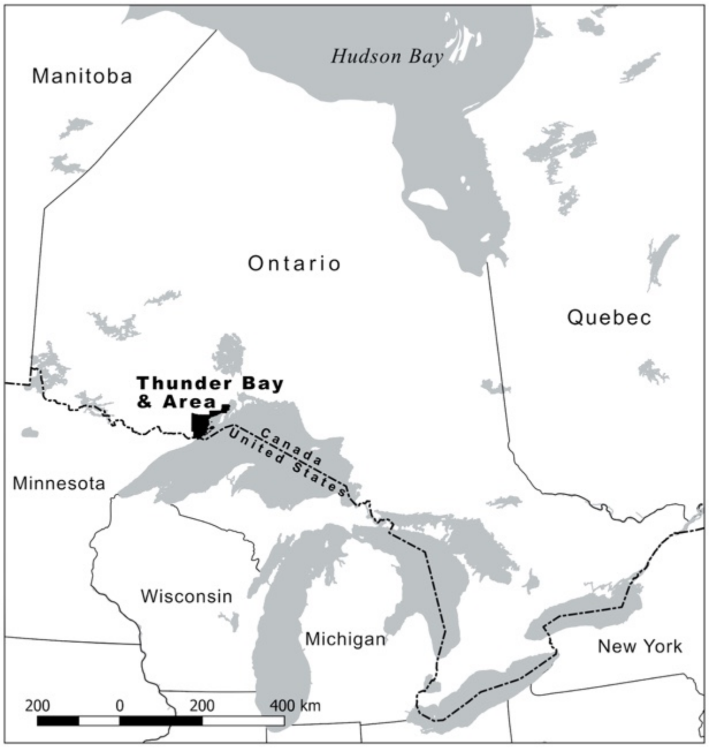
SNA can also reveal weaknesses and gaps which can inform further decision-making in network-building. A study from Bright et al. (2019) on a public health equity coalition in the United States used SNA as an evaluation tool to establish key recommendations for improving network function. This research contributed to improving integration amongst a diverse membership. In another study, Ernstson et al. (2008) argued that SNA should be incorporated into research on social networks where government alliances are important. Their social networks helped uncover the source of ecosystem management problems in Stockholm National Urban Park. Through an analysis of the interactions between civil society organizations working to protect the green space and its eventual co-management, they identified opportunities and constraints to collective action. Specifically, they found that a division had developed between administrators with strong government ties and the stakeholders at the forefront of a growing urban movement. The lessons learned from the study can be applicable to FPGs where the objective is for the stakeholders to have ongoing influence on policy makers and governance structures.

Understanding how individuals and organizations connect and interact with each other is at the center of social network theory (Borgatti et al., 2009). Given the strong focus on building relationships and the value of integration for achieving their goals, FPGs that are able to build strong relationships and achieve cross-sectoral integration have increased their likelihood of success (Dharmawan, 2015; Ilieva, 2016; Liang & Brown, 2019). Thus, SNA is a useful tool for analyzing FPGs' efficacy and for planning their improvement. However, despite the potential usefulness of SNA as a tool for understanding social networks, there has been limited application of this model in FPG research. In one example of SNA used to compare networks between four FPGs in the state of Missouri, research uncovered insights about the network's operations, particularly in relation to geographic dispersion of membership and diversity (Dharmawan, 2015). The study results suggested that SNA was a valuable tool for understanding the nature of FPG networks and changes over time. In this paper, we use SNA as a tool to explore the relationships and structures constituting the TBAFS.

Study context: The Thunder Bay and Area Food Strategy

Thunder Bay is a mid-sized city in Northwestern Ontario located on the north shore of Lake Superior (Figure 1). It is situated on the traditional lands of Fort William First Nation, signatory to the Robinson Superior Treaty of 1850. The city has a population of approximately 110,000[3] and serves as a regional hub for a number of rural townships and First Nations that are accessible by road, as well as communities in the far north that are accessible by air. These regional communities rely on Thunder Bay for a range of social services, healthcare, retail, and other essential services. While it is the largest city in the region, Thunder Bay is relatively isolated from other population centres.

Figure 1: Map of Thunder Bay and Area (created by Reg Nelson)



The TBAFS was established after decades of collaboration and community-led efforts to create a more healthy, equitable, and sustainable food system for the region. Leadership from the Food Action Network brought together a diverse range of actors from the public, private, and non-profit sectors to draft the Thunder Bay Food Charter. This document served as an overview of the collective vision for a healthy, equitable, and sustainable food system and a framework for policy, planning, research, and program development at the municipal and regional levels.

---

[3] The majority of the population are of European and Scandinavian descent with almost 13% made up of Indigenous peoples, the highest proportion of urban Indigenous peoples per capita in Canada (Statistics Canada, 2016).

It focused on five key priorities: 1) building community economic development; 2) ensuring social justice; 3) fostering population health; 4) celebrating culture and collaboration; and 5) preserving environmental integrity (TBAFS, 2008). In 2008, the Charter was endorsed by the City of Thunder Bay, the District of Thunder Bay Social Services Administration Board, and thirty-three other municipalities and organizations in the region. In 2012, community leaders gathered at a regional food summit and agreed to develop a food strategy as a way to identify strategic action priorities and implement the Charter. After extensive consultation and deliberation, in 2014, the TBAFS was launched and endorsed by seven municipalities in the Thunder Bay area.

The TBAFS is guided by a Strategic Action Plan that promotes regional food self-reliance, healthy environments, and thriving economies through an integration of existing efforts. The Plan was developed through multiple rounds of consultation with community leaders and stakeholders in order to meet the region's food system needs (TBAFS, 2014). The TBAFS is built on seven key pillars that are intended to integrate the core elements of a healthy, equitable, and sustainable food system in the region: food access, forest and freshwater foods, food infrastructure, food procurement, food production, school food environments, and urban agriculture.

Today, the TBAFS functions as an independent FPG that is housed within a community-based non-profit organization. Its members represent key sectors from across the food system, including agriculture, Indigenous communities, economic development, policy, public health, non-profit, research, and education, as well as regional governments (urban, rural, and First Nations). Its primary work is to collect, integrate, and disseminate information, and to support food systems initiatives in the region. An Executive Committee provides overall direction and guidance to a staff coordinator and the Council, which is made up of 46 organizational representatives and regional municipalities. The TBAFS Council includes representation from additional sectors, including government, advocacy, institutional, environmental, and emergency food providers. The Council meets biannually to share information and ideas across sectors and to provide oversight and strategic advice regarding the implementation of the Strategic Action Plan. These characteristics of the TBAFS align closely with features of FPGs as described previously.

Methods

Research for this paper was conducted in partnership with faculty, staff, and students at Lakehead University, along with the TBAFS coordinator. It was part of a broader research project that aimed to explore ways that the TBAFS could have greater impact on municipal and regional food policy and planning in the Thunder Bay area. In order to gain a better understanding of the TBAFS network, a survey of TBAFS members was conducted to gather information about the strength and types of relationships among the membership.

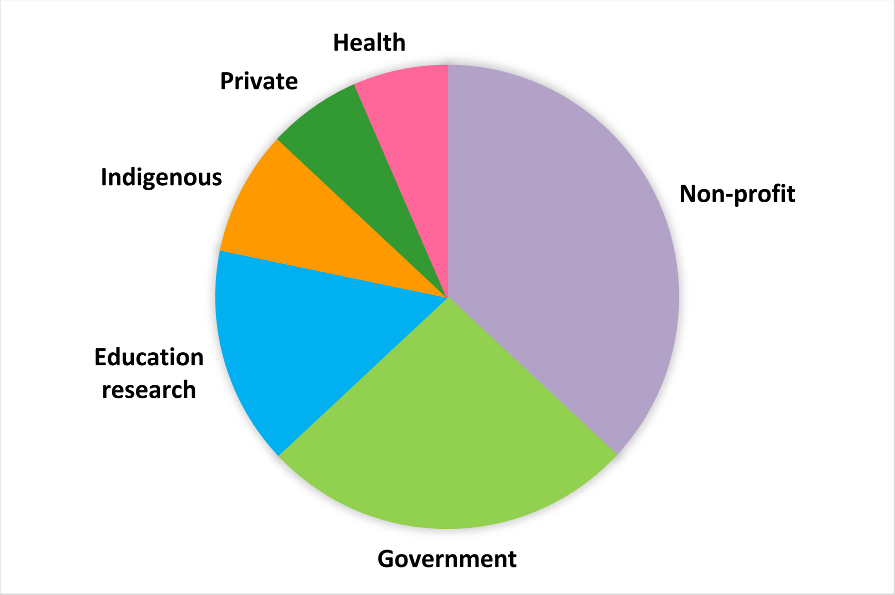
The survey was a revised version of one used by Schiff (2019) and was adapted from SNA surveys used by Fleury et al. (2014) and Keast et al. (2008). Each TBAFS member was asked to indicate the strength of their relationship with every other organization using a four-point scale (1=never; 2= rarely; 3=sometimes; 4=always) for three types of relationships: shared information, shared resources, and joint planning and programming. The types of relationships were identified and selected by the TBAFS Executive in coordination with the research team as areas of specific activity and interest.

The survey was administered online using Qualtrics, and an invitation was emailed directly to all forty-six TBAFS member organizations based on the most up to date contact information. A total of twenty-eight responses were received. Following data cleaning, five responses were deleted (one was anonymous, one was not a member, and three were duplications from individuals at the same organization). Survey data were analyzed using Gephi, an open-source network analysis and visualization software package (Bastian et al., 2009).
Gephi hosts a variety of layout algorithms useful for visually displaying the relationships captured in the data. Such network visualizations can then be used to map and explore network attributes interactively.

Results

Respondents were organized by their location in six sectors (Figure 2): non-profit organizations (37%), government (26%), education/research (15%), Indigenous organizations (9%), private businesses (6.5%), and health (6.5%).

Figure 2: Distribution of Sectors Across the Whole TBAFS Network



Survey data was transcribed into node and edge file spreadsheets. Each node in the TBAFS network represented one of the organizational members. The node file captured attributes such as node ID and organization type. Four edge files were created, each representing a type of relationship between the nodes. Three of the edge files captured relationship types (shared information, shared resources, and joint planning and programming); strength of relationship was documented as an edge weight (1= rarely; 2=sometimes; 3=always). From these data, a fourth 'whole network' edge file was compiled which showed all of the connections between nodes in the TBAFS network regardless of relationship type. The edges in this file all received the same weight of one, and if two organizations interacted on all three relationship types, it was still counted as one connection. The spreadsheets were uploaded into Gephi, and four networks were created. A directed network format was chosen as not all relationships were reciprocal.

For each of the three relationship-type networks, statistics were run for the entire network and for each portion of the network, organized by strength of relationship. This resulted in independent statistics for the 'rarely', 'sometimes', and 'always' connections, enabling us to compare the value and role each type of relationship played in the network. Due to the exploratory nature of this study, the statistical methods used to analyze data were not chosen in advance.

Network statistics

Statistics were run on the unweighted whole network to get an overall sense of how the organizations were interacting. Among the forty-six TBAFS member organizations, 492 relationships were reported. Each link represented either one, two, or three relationship-types. Most of these connections involved the sharing of information (483 edges, 98%). The next most common type of interaction was sharing resources (425 edges, 86%). Finally, three quarters of the edges were from organizational collaboration on joint planning and programming (376 edges, 76%). Analysis revealed an overall network density of 0.24. In other words, an almost 25% rate of connection compared to if all nodes were connected with each other. Furthermore, our analysis revealed that the TBAFS network had a diameter of three. Recall that the diameter is the number of path lengths between the two most distant nodes in the network. This means that the organizations least connected within the TBAFS network were separated from each other by only three path lengths. Table 1 provides a summary of the network statistics.

Table 1: Summary of Network Statistics

Statistic	A. Whole Network	B. Shared Information	C. Shared Resources	D. Joint Planning & Programming
Nodes	46	46	46	46
Edges	492	483	425	376
Percentage of Edges	100	98	86	76
Density	0.24	0.23	0.21	0.18
Diameter	3	3	3	4
Connected Component	1	1	2	2
Average Clustering Coefficient	0.61	0.60	0.57	0.53
Average Path Length	1.57	1.58	1.64	1.73

Small-world effect

The small-world effect is a concept that describes two nodes that are not directly connected to each other but have only a small number of path lengths between them. In other words, it indicates that two organizations who may not know each other directly can be connected through a short chain of relationships with other organizations in the network.

The small-world effect is calculated by considering both the average path length between nodes and the clustering coefficient.

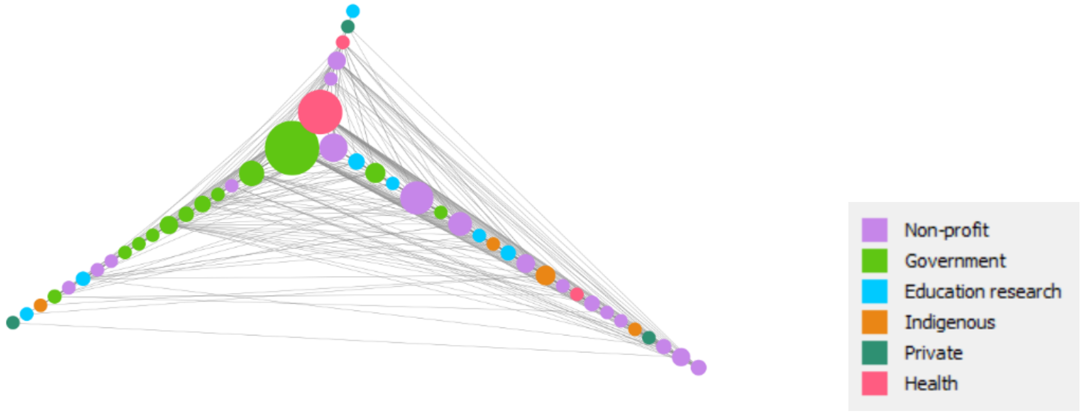
The TBAFS network can be described as exhibiting a small-world effect. The clustering coefficient of the whole network was 0.61, meaning that the organizations were, on average, 60% connected with each other. Besides this high degree of connectivity, the TBAFS network had a very low average path length of 1.57. In other words, for each member, reaching any other organization in the network is only a few connections away. In summary, the small-world effect illustrates that a high degree of advantageous connectivity exists within the TBAFS network.

Modularity

To explore the community structure of the TBAFS network, we conducted a modularity analysis on the whole network (regardless of relationship type). Figure 3 shows a visualization of the modularity in the TBAFS network using a radial axis layout to explore the different communities. This layout places the nodes from each community into one of three arms radiating from a central point. This enabled us to see which nodes, and, more specifically, which type of nodes, made up these different communities.

Figure 3: Modularity in the TBAFS Network

Nodes are sized by betweenness centrality and coloured by organization type. They are ordered from the centre according to each organization's indegree score (the number of times they were named by other organizations).



The modularity analysis of the TBAFS network reveals that each arm (community) appeared to be quite integrated, as exemplified by the different sectors represented in each group.

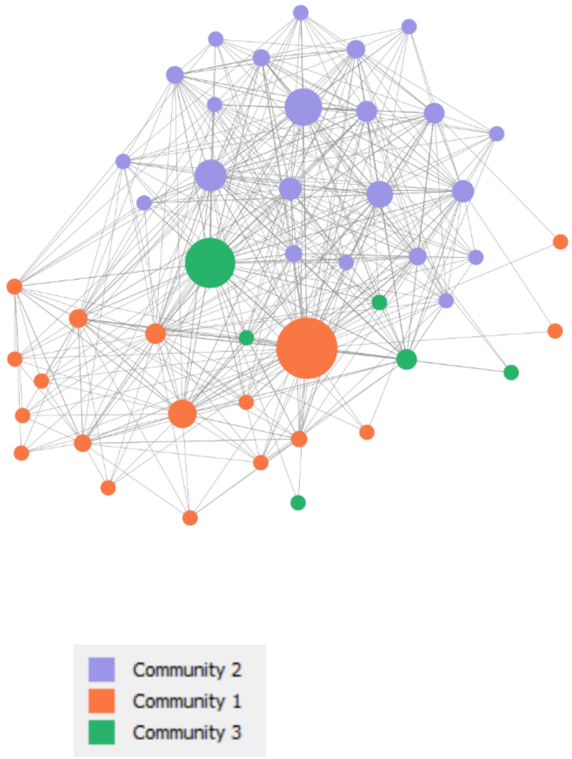
We note that each time modularity analysis was conducted it resulted in a different number of communities (either two or three) and a slight alteration in the modularity value (between 0.129 and 0.147). This is because each time modularity is run it compares the network to a different random network. To verify the membership of these seemingly changing communities, we ran twenty-five iterations of the modularity statistic and recorded the ID number and type of nodes that made up each of the two or three communities that resulted each time. From this, two communities emerged with nodes that were consistently grouped together (80%-100% of the time) – eighteen nodes in one community and fifteen nodes in the other. Community One contained organizations from the following sectors: ten government, three non-profit, one Indigenous, and one education/research. Community Two consisted of nine non-profit, four education/research, two Indigenous, one government, one private, and one health. The remaining thirteen nodes varied in their group membership with each modularity iteration. They either fell into one community or the other or made up a third community that had no apparent pattern.

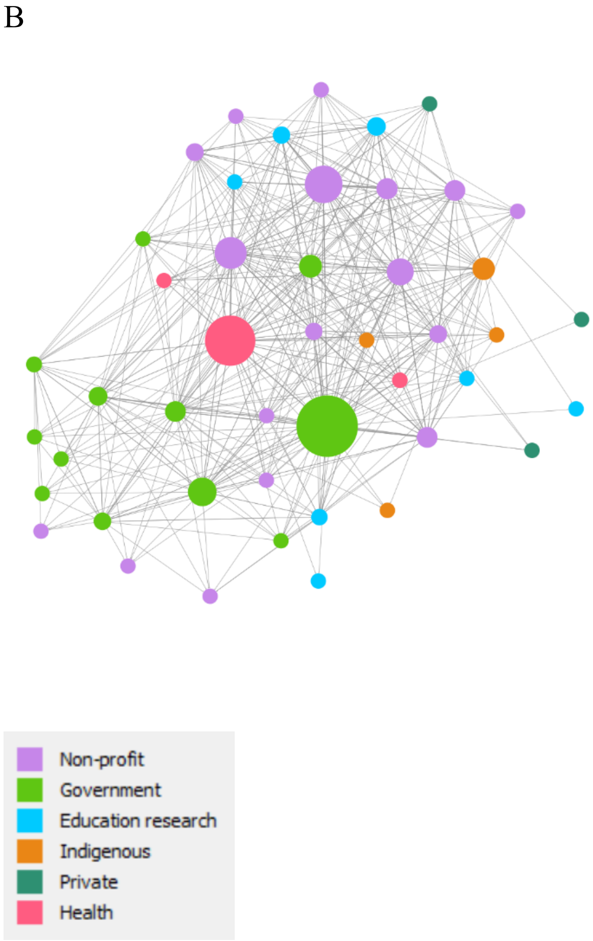
We also ran a different layout algorithm to see how these communities came together within the context of the network as a whole. We chose the Forced Atlas 2 (FA2) layout, which draws connected nodes together and pushes those which aren't connected further apart. When the nodes were coloured according to these results, the connections amongst nodes in each community were more apparent (Figure 4).

Figure 4: Community Distribution in the TBAFS

A shows the nodes coloured by modularity class, with each colour representing a different community. The same image is presented in **B** with nodes coloured by organization type. Nodes are sized by betweenness centrality.

A


Community 2
Community 1
Community 3



In summary, the modularity shows that, within the structure of the TBAFS network, there are two groups of organizations with stronger connections. While both groups show an integration of organization types, Community One has a large number of government organizations whereas Community Two has a large number of non-profit organizations as well as four of the seven education and research organizations. The modularity value is low (*M* = 0.142), meaning that these groups still maintain many connections with the rest of the network. The groups, however, are persistent, which means they are definitive of the TBAFS network structure.

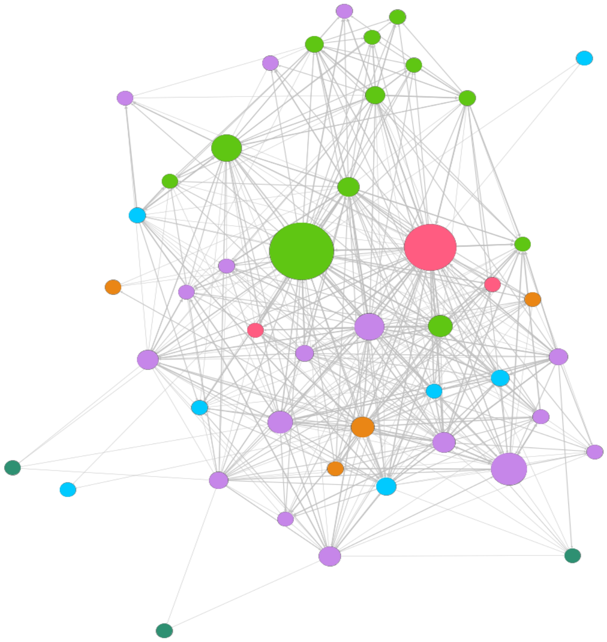
Strength of ties

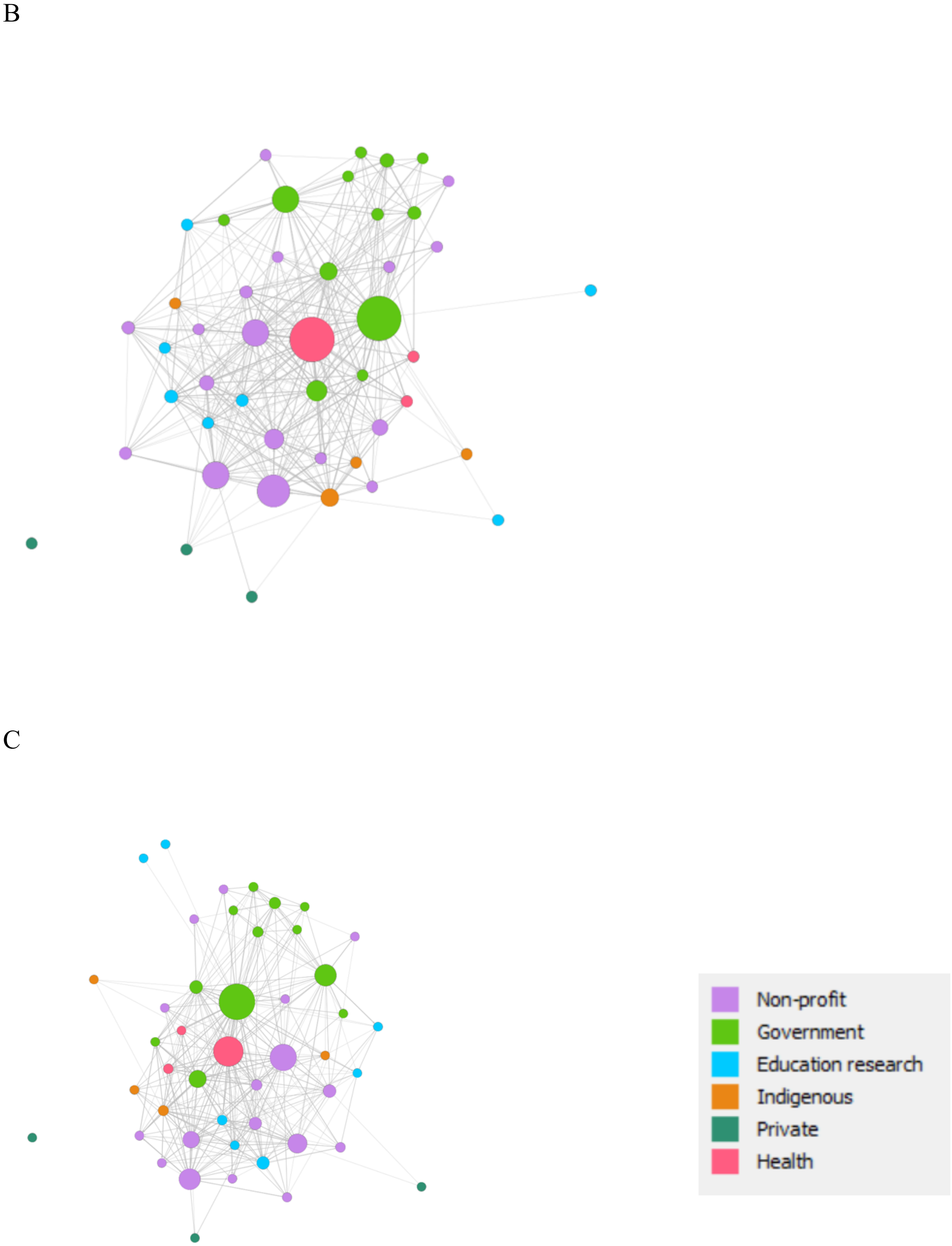
We visualized the three relationship-type networks using the Forced Atlas 2 layout algorithm (Figure 5).

Figure 5. Distribution of network links by relationship type

The nodes are sized by betweenness centrality. Darker edges represent more frequency of interaction. **A** depicts shared information, **B** shared resources, and **C** joint planning and programming.

A




B
C
Non-profit
Government
Education research
Indigenous
Private
Health

Betweenness centrality (nodes bridging two unconnected nodes) varied in each network, as shown by node size. We found that more organizations played bridging roles in sharing resources and joint planning and programming than in sharing information. Nodes on the periphery represent organizations that have less involvement with the network. For example, one private business participated in sharing information only.

To investigate the relationship types and the roles they played in the TBAFS network more closely, we considered the strength of the ties. In SNA, both strong and weak ties have value. Strong ties represent cohesion and trust, but they can also be associated with network fragmentation when the ideas and resources are confined to smaller portions of the network. While we might assume that weak ties have less value, new ideas and innovative information are more likely to emerge through weaker ties than stronger ones (Granovetter, 1973; Ruef, 2002). In social capital literature, strong and weak ties also exhibit bonding and bridging (Newman & Dale, 2005; Woolcock, 2001). Bonding ties are exemplified by those amongst close friends and family who form strong, connected relationships. These bonds create trust, but over time they can result in strict rules and exclusivity. The resulting loss of diversity leads to decreased resilience in the overall network (Newman & Dale, 2005). To increase resilience, weak ties, like those of acquaintances and more distant friendships, act as bridging relationships offering new opportunities, ideas, and access to different resources.

Table 2: Summary of relationship-type by strength

	Shared Information			Shared Resources			Joint Planning & Programming		
Frequency	Sometimes/ always	Rarely	Total	Sometimes/ always	Rarely	Total	Sometimes/ always	Rarely	Total
Edges	326	157	483	282	143	425	257	119	376
Percentage of Edges	67.49	32.5	100	66.35	33.65	100	68.35	31.65	100
Diameter	5	5	3	5	6	3	6	6	4
Density	0.16	0.08	0.23	0.14	0.07	0.21	0.12	0.06	0.18
Connected Component	5	3	1	4	2	2	6	5	2

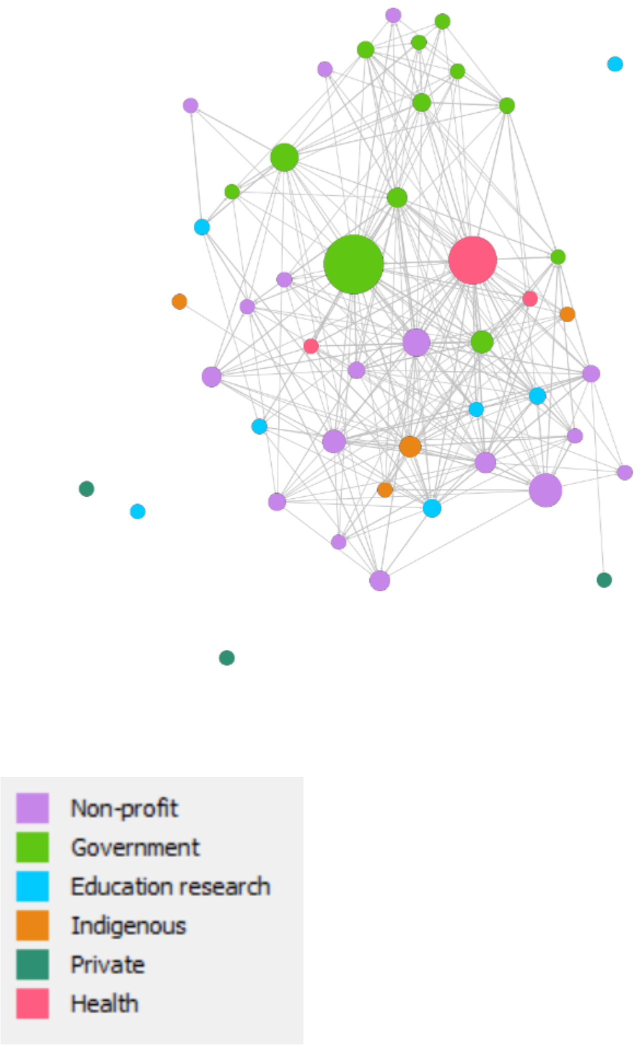
Average Clustering Coefficient	0.42	0.15	0.60	0.37	0.17	0.57	0.39	0.13	0.53
Average Path Length	1.85	2.26	1.58	1.97	2.39	1.64	2.05	2.52	1.73

Table 2 shows a breakdown of the network statistics by strength. For this analysis, the ‘rarely’ interactions were considered as weak ties and comprised 1/3 of the edges in all three relationship-type networks. ‘Sometimes’ and ‘always’ connections were combined to highlight the additive effect of the weak ‘rarely’ connections on the total. Although less frequent, these weak connections added statistically to the architecture of each network. Network density increased by 6-8%, meaning that a larger portion of the network was connected. The average clustering coefficient increased by 14-20% and the average path length decreased, making the claim of small-world effect more robust. Network diameter dropped by two path lengths, meaning that the nodes that were most distant were brought closer together. In the case of the shared information network, if the ‘rarely’ ties were eliminated, four nodes would have become isolated, as seen in Figure 6. Weak interactions represented an acquaintanceship connection and structure in the network as opposed to no connection at all.

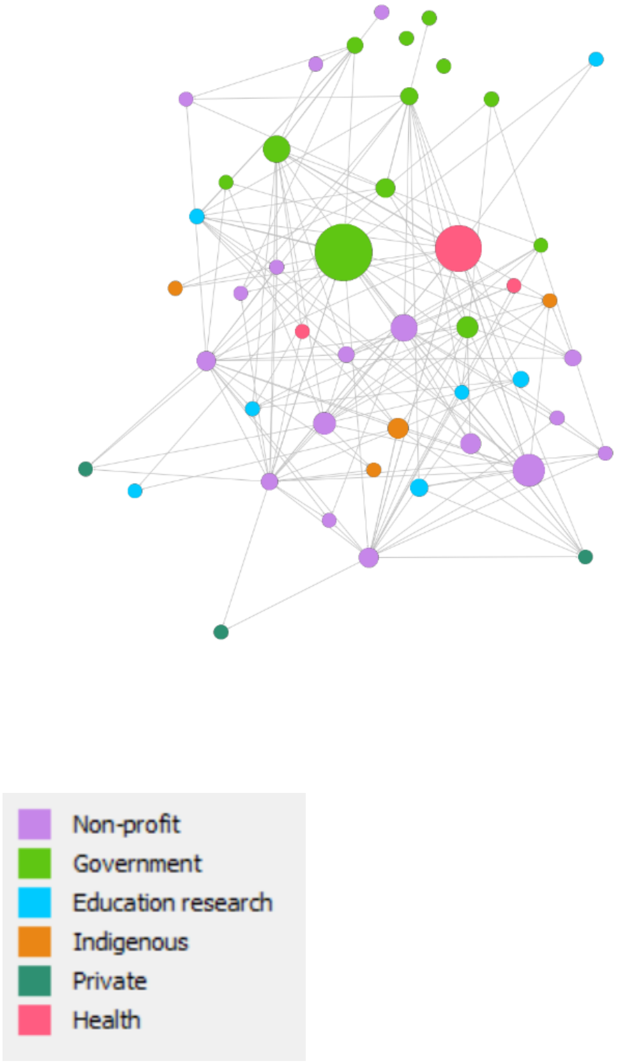
Figure 6: Strength of shared information ties

A shows ‘sometimes’ and ‘always’ interactions, while **B** shows ‘rarely’ interactions.

A


Non-profit
Government
Education research
Indigenous
Private
Health

B


Non-profit
Government
Education research
Indigenous
Private
Health

The role of individual organizations in the network

Separate statistics were also considered for the role that individual organizations played in the TBAFS network. To measure this, we looked more closely at betweenness centrality and clustering coefficient.

Betweenness centrality

Our analysis of betweenness centrality (*BC*) brought attention to two particular organizations that stood out: one government (*BC* = 133.91) and one health organization (*BC* = 101.48). To test the influence of these organizations on the overall functioning of the network, an analysis was conducted with these nodes removed (Table 3). The result was that the clustering coefficient decreased by 12%, meaning that these two organizations had a significant impact on the way that the remaining organizations grouped together. Both were high degree nodes and the loss of their edges meant a decrease in overall network density. Of note, removing only the government organization had a more significant effect on the diameter, which increased one path length. With both organizations removed, one node became an isolate (as seen with the connected component statistic in Table 3). While the centrality of these two organizations can be shown via analysis, it is important to note that they are not deterministic of the network structure overall, as the small-world effect still holds with the removal of either. In summary, the influence of the government and health organizations are substantial, but the TBAFS network would still function, albeit differently, should they be absent. These results confirm Gupta et al.'s (2018) findings that strategic partnerships with government and health organizations can increase the impact of a network.

Table 3: Influence of high betweenness organizations

	Connected Component	Average Clustering Coefficient	Avg Path Length	Density	Diameter
Whole Network	1	0.61	1.57	0.24	3
Government Node Removed	1	0.53	1.63	0.22	4
Health Node Removed	1	0.56	1.60	0.22	3
Both Government and Health Removed	2	0.49	1.69	0.20	4

Clustering

We explored what clustering patterns could tell us about the integration of the network to answer the question: Were organizations interacting with others from different sectors? From the nodes with the highest clustering coefficients, we examined those with an indegree of ten or more. The logic was that it would be unusual for nodes with a higher degree to cluster than with a lower degree. We found that this resulted in a variety of organization types (Table 4).

Table 4: Highest clustering coefficient values for organizations with an indegree <9

TYPE	Survey Participant	Clustering Coefficient	Indegree
Private	No	0.822	10
Non-profit	No	0.818	11
Indigenous	No	0.818	11
Health	Yes	0.780	12
Non-profit	Yes	0.750	12

We then looked at the clustering of these nodes' neighbours and found them to be very highly connected (75% to 82%). We investigated the organization types which made up each cluster for signs of integration (Table 5) and found that the majority of interactions were with non-profits, followed by government. None of the clusters included private businesses, although one of the five nodes investigated was itself a private business, and it demonstrated the highest clustering coefficient.

Table 5. Integration of high clustering organizations by organization type

Type	Private	Non-profit	Indigenous	Health	Non-profit
Government	20%	9.1%	27.3%	33.3%	25%
Non-Profit	50%	63.6%	54.5%	50%	41.7%
Indigenous	10%	9.1%	9.1%*	8.3%	8.3%
Education/Research	10%	9.1%	0	0	16.7%
Health	10%	9.1%	9.1%	8.3%*	8.3%

Discussion

Initial results from the SNA survey were shared with the TBAFS Executive members and provided valuable insight into the relationships occurring within the network. Previous knowledge about TBAFS relationships was based primarily on anecdotal perspectives of the Executive and those members attending biannual meetings.

The SNA study provided a systematic and structured approach to collecting details about relationships to understand the network interactions in a new way for future planning. In addition, the SNA results point to a number of specific directions for future research to strengthen the network. While there are many insights that could be garnered from the SNA results, in this section we highlight a few key learnings.

Much insight was gained from the exploration of network modularity. The identification of two clusters of organizations with strong internal connections was unexpected. Although these organizations had strong ties among them, they did not break off into separate modules which would typically be characteristic of a higher modularity value. Instead, many of the organizations remained highly connected with the rest of the network. This signifies strong working relationships within two core elements of a well-integrated network. From this, further research could help to understand the value of this revelation and the roles of these connections within the network.

It was helpful to look at the placement of the health and government organizations that had the highest betweenness centrality scores with respect to the modularity results. The government organization was part of a community with strong connections to other government organizations, many of which were municipalities. Within this community, this particular government organization appeared to act as a bridge between these interconnected organizations and the rest of the network. This was in contrast with the health organization that also had a high betweenness score. It was not a member of either community, giving it a more neutral placement in the community and bridging connections between the two. From this, future research could explore whether mutual benefit could be gained by more direct contact among the different organizations that these health and government organizations are currently bridging.

As described above, the SNA revealed a small-world effect, which is a valuable characteristic in a network desiring a substantial flow of knowledge and information. Our analysis showed a high average clustering coefficient and low average path length. This speaks to the effectiveness of the TBAFS structure as a less centralized network with many nodes connected not directly but through a short chain of acquaintances. The alternative would be a more centralized network where information and resources are controlled by only a few organizations, thus affording a high level of power to a small number of individuals. As the TBAFS aims to ensure independent decision-making and equity within the network, its current structure is highly desirable. For example, the Indigenous Food Circle (IFC) is a member of the TBAFS with the goal to build Indigenous food sovereignty and self-determination in the region. The IFC advocates for food systems decision-making to be within the control of those that produce and harvest food and believes that food should adhere to the cultural values of the different Indigenous communities (Levkoe et al., 2019). The IFC's relationship with the TBAFS is predicated on having an independent voice at the table. If the TBAFS network were more centralized, the IFC would be less likely to participate. This is supported by other research on FPGs that suggests the importance of maximizing structural autonomy (Dubé et al., 2009; Gupta et al., 2018).

Another interesting finding was the diversity of the five organizations with the highest clustering coefficients amongst those with 10 connections or more. These represented four of the six types of organizations – non-profit, education/research, Indigenous, and private business. Most of their interactions were with non-profit organizations and government organizations, with some interactions with all other types except private businesses. The results were a good example of integration amongst organizational sectors.

Some previous studies have suggested significant value for an FPG structure closely related to government as a way to increase resources, legitimacy, and visibility (Baldy & Kruse, 2019; Bassarab et al., 2019; Clayton et al., 2015; Jablonski et al., 2019). Others suggest that more structural autonomy is better (Gupta et al, 2018.). It appears that the TBAFS might have struck a healthy balance, with an independent structure that effectively negotiates and utilizes the role of the government in the network as an important bridge between sectors and organizations. The SNA results might be particularly informative to TBAFS members by helping to identify pathways that could be used to better serve their needs.

To better understand cross-sectoral integration, we can look to signs of network cohesion as determined by reachability, distance, and density. Looking at all ties regardless of the reason members are connecting, the TBAFS is one connected component, meaning that reachability is very good. Distance is related to diameter, and the diameter results could be interpreted in different ways. In a large network, a diameter of three would be considered very good (Wasserman & Faust, 1994, p. 17-19). But in a network like the TBAFS that exists within the relatively small population of Thunder Bay, where the goal of the network is integration, a diameter of three may still seem too high. Having to make a connection through three separate members brings attention to those members who might be more distant from the core group. Further research could consult these members to see if and how their involvement in the TBAFS is helping them achieve their goals. However, another interpretation would be that it is not necessary for all members to be in direct contact with one another. The diversity of organizations reflects a diversity of activities and needs, and the most distant members are likely interacting only with others that share common goals or with whom they find support.

In respect to density, the survey showed that almost 25% of possible connections amongst the TBAFS membership are being utilized. This is a structured network, but it still has room for growth and innovation. Considering that one third of all interactions are ‘rarely’ connections, the TBAFS might benefit from further investigation into the nature of these particular relationships. Overall, the TBAFS is a cohesive network, which is also made apparent through the small-world effect. All members in the TBAFS are participating, with many connections in active use, the potential for others to be utilized at any time, and a broad horizon possible for movement and growth. For the TBAFS, network cohesion appears to be different from most FPGs that struggle to create a connected and diverse membership (Bassarab et al., 2019; Boden & Hoover, 2018; Sands et al., 2016). This is particularly important for FPGs because active engagement of diverse community members (and organizations) can have a positive impact (Sands et al., 2016).

Limitations

The TBAFS SNA survey received only a 50% response rate. While this was not ideal, indegree is stable at lower response rates when the network boundary is defined (Costenbader & Valente, 2003). Further, the average path length is tolerated at 50% response rates (Kossinets, 2006). In a defined network like the TBAFS, it is highly likely that relationships reported by one respondent are reciprocal (Kossinets, 2006). In SNA, online survey delivery is known to have lower response rates than face to face interviews (Borgatti et al., 2013), which could be improved in future research by using a mixed methods approach.

The findings from the SNA survey represent a snapshot in time. The survey was conducted at a particular moment, and many of the respondents are dynamic organizations that are constantly changing and adapting to new circumstances. This involves building new and different kinds of relationships as circumstances evolve and change. In the case of our study, the survey was conducted prior to the COVID-19 pandemic in 2020. In response to new economic constraints, physical distancing requirements, and increased food insecurity in Northwestern Ontario, many of the TBAFS members were forced to cancel programming and turn their attention to emergency food provisioning. Likewise, this has had a significant impact on many of the organizational relationships. Moreover, the TBAFS Executive took on a more central role in leadership by connecting and coordinating its membership in addition to engaging with new organizations. Conducting the survey again would inevitably yield different results and tracking and comparing those changes would be valuable.

A further limitation is that the SNA survey was completed by individuals that represent their organizations. Thus, the results might speak more to individual perspectives as opposed to those of their organizations as a whole. In fact, there may have been disagreement on some of the responses if others from the organization had completed the survey. Based on the methodology used in this study, we were not able to capture those tensions adequately. Additional surveys or follow-up interviews would be valuable to better understand particular perspectives.

Conclusion

Based on this research, we regard SNA a useful tool that has elucidated the relationships and structural characteristics that make up the TBAFS. This approach moves beyond relying on speculation and assumptions by providing a set of tools that can enhance the work of cross-sectoral integration. The desired structure of a network depends on the specific goals of the network members, and SNA can enhance strategic decision making by better understanding the distribution and flow of organizational relationships. Moving forward, we suggest that SNA surveys might be repeated on a biennial basis to provide comparable data that can reveal the evolving structure of the network as its context and members change.

These comparable results could help to understand the impact of specific actions as well as progression and change over time. SNA results can and should be explored interactively with network members to gain further insights from the statistical analysis and visualizations relative to a member's position within the network. It would be valuable for participants to locate themselves on the maps and to identify the gaps that exist, along with existing and potential connections that could be better utilized. Further, the more that members recognize the value of SNA, the more likely they are to participate wholeheartedly in the data gathering process and act on the results. This would be essential for increasing the survey response rate. SNA, however, is not the only way to understand relationships within FPGs. We also suggest expanding the SNA to include other qualitative components, such as case studies and interviews, as described by Luxton and Sbicca (2020). These kinds of tools would complement survey findings to explore the nature of various affiliations along with what they mean for the goals of network development.

Acknowledgements: We acknowledge the ongoing engagement in this research of the Thunder Bay and Area Food Strategy staff, executive and members. Thank you to Reg Nelson for his extraordinary map making skills and contributing to this article. We are grateful for the ongoing support from the Food: Locally Embedded, Globally Engaged (FLEdGE) collaborative research network, the Northwestern Ontario Node (including Mirella Stroink and Connie Nelson) and to the Social Science and Humanities Research Council of Canada for financial support.

References

Baldy, J., & Kruse, S. (2019). Food democracy from the top down? State-driven participation processes for local food system transformations towards sustainability. *Politics and Governance*, *7*(4), 68–80. https://doi.org/10.17645/pag.v7i4.2089

Bassarab, K., Clark, J. K., Santo, R., & Palmer, A. (2019). Finding our way to food democracy: Lessons from US food policy council governance. *Politics and Governance*, *7*(4), 32-47. https://doi.org/10.17645/pag.v7i4.2092

Bastian, M., Heymann, S., & Jacomy, M. (2009, March). Gephi: An open source software for exploring and manipulating networks. Conference Paper presented at the Third international AAAI conference on weblogs and social media, San Jose, CA.

Blay-Palmer, A. (2009). The Canadian pioneer: The genesis of urban food policy in Toronto. *International Planning Studies*, *14*(4), 401–416. https://doi.org/10.1080/13563471003642837

Boden, S., & Hoover, B. M. (2018). Food policy councils in the mid-Atlantic: Working toward justice. *Journal of Agriculture, Food Systems, and Community Development*, *8*(1), 39-52. https://doi.org/10.5304/jafscd.2018.081.002

Bright, F., Cozart, F., Bagley, F., Scott, F., & Dennis, F. (2019). Social network gap analysis evaluation: A case study of the Southeastern Health Equity Council. *Family and Community Health*, *42*(1), 44–53. https://doi.org/10.1097/FCH.0000000000000210

Borgatti, S. P., Everett, M. G., & Johnson, J. C. (2013). *Analyzing social networks*. SAGE Publications.

Borgatti, S., Mehra, D. Brass, D., & Labianca, G. (2009). Network analysis in the social sciences. *Science, 323*(5616), 892-895. https://doi.org/10.1126/science.1165821

Carrington, P. J., Scott, J., & Wasserman, S. (Eds.). (2005). *Models and methods in social network analysis* (Vol. 28). Cambridge University Press.

Centre for a Livable Future. (n.d.). *Food policy council directory*. Johns Hopkins Bloomberg School of Public Health. Available at: http://www.foodpolicynetworks.org/councils/directory/online/index.html

Clancy, K., Hammer, J., & Lippoldt, D. (2008). Food policy councils-past, present, and future. In: C. C. Hinrichsand, & T. A. Lyson (Eds.). *Remaking the North American food system: Strategies for sustainability* (pp. 121-143). University of Nebraska Press.

Clayton, M. L., Frattaroli, S., Palmer, A., & Pollack, K. M. (2015). The role of partnerships in US food policy council policy activities. *PloS one*, *10*(4), e0122870. https://doi.org/10.1371/journal.pone.0122870

Coplen, A., & Cuneo, M. (2015). Dissolved: Lessons learned from the Portland Multnomah Food Policy Council. *Journal of Agriculture, Food Systems, and Community Development*, *5*(2), 91–107. https://doi.org/10.5304/jafscd.2015.052.002

Costenbader, E., & Valente, T. W. (2003). The stability of centrality measures when networks are sampled. *Social Networks*, *25*(4), 283-307.

Dahlberg, K. A. (1994, June 11). Food policy councils: The experience of five cities and one county. Conference paper presented at the The Joint Meeting of the Agriculture, Food, and Human Values Society and the Society for the Study of Food and Society, Tuscon, AZ.

De Marco, M., Chapman, L., McGee, C., Calancie, L., Burnham, L., & Ammerman, A. (2017). Merging opposing viewpoints: Analysis of the development of a statewide sustainable local food advisory council in a traditional agricultural state. *Journal of Agriculture, Food Systems, and Community Development*, *7*(3), 197-210. https://doi.org/10.5304/jafscd.2017.073.018

Diani, M. 2002. Network analysis. In: B. Klandermans, & S. Staggenborg (Eds.). *Methods of social movement research* (pp. 173-200). University of Minnesota Press.

Diani, M., & McAdam, D. (Eds.). (2003). *Social movements and networks: Relational approaches to collective action*. Oxford University Press.

Dharmawan, A. (2015). *Investigating food policy council network characteristics in Missouri: A social network analysis study*. Doctoral dissertation, Saint Louis University.

Dubé, L., Beauvais, J., & Thomassin, P. (2009). *Building convergence toward an integrated health & agri-food strategy for Canada: A discussion paper*. Canadian Agri-Food Policy Institute.

Ernstson, H., Sörlin, S., & Elmqvist, T. (2008). Social movements and ecosystem services: The role of social network structure in protecting and managing urban green areas in Stockholm. *Ecology and Society*, *13*(2). https://doi.org/10.5751/ES-02589-130239

Fleury, M. J., Grenier, G., Lesage, A., Ma, N., & Ngui, A. N. (2014). Network collaboration of organizations for homeless individuals in the Montreal region. *International Journal of Integrated Care*, *14*(1). https://doi.org/10.5334/ijic.1138

Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, *78*(6), 1360–1380. https://doi.org/10.1086/225469

Gupta, C., Campbell, D., Munden-Dixon, K., Sowerwine, J., Capps, S., Feenstra, G., & Kim, J. V. S. (2018). Food policy councils and local governments: Creating effective collaboration for food systems change. *Journal of Agriculture, Food Systems, and Community Development*, 8*(*B), 11-28. https://doi.org/10.5304/jafscd.2018.08B.006

Harper, A., Shattuck, A., Holt-Giménez, E., Alkon, A., & Lambrick, F. (2009). *Food policy councils: Lessons learned*. Food First/Institute for Food and Development Policy.

Hawe, P., Webster, C., and Shiell, A. (2004). A glossary of terms for navigating the field of social network analysis. *Journal of Epidemiology and Community Health*, *58*(12), 971-975. https://doi.org/10.1136/jech.2003.014530

Humphries, M., & Gurney, K. (2008). Network "small-world-ness": A quantitative method for determining canonical network equivalence. *PloS One*, *3*(4), e0002051. https://doi.org/10.1371/journal.pone.0002051

Ilieva, R. (2016). New governance arenas for food policy and planning. In R. Ilieva (Ed.), *Urban Food Planning* (pp. 197-221). London: Routledge.

Jablonski, B. B., Carolan, M., Hale, J., Thilmany McFadden, D., Love, E., Christensen, L., Covey, T., Bellows, L., Cleary, R., David, O., Jablonski, K. E., Jones, A. S., Meiman, P., Quinn, J., Ryan, E. P., Schipanski, M., Summers, H. & Uchanski, M. (2019). Connecting urban food plans to the countryside: Leveraging Denver's food vision to explore meaningful rural–urban linkages. *Sustainability*, *11*(7), 2022. https://doi.org/10.3390/su11072022

Keast, R., Waterhouse, J. M., Brown, K., & Murphy, G. (2008). *Closing the gaps and opening doors: The function of an integrated homelessness service system: Place-based networks analysis and case studies.* Queensland Department of Communities, Australia. https://eprints.qut.edu.au/80749/

Kossinets, G. (2006). Effects of missing data in social networks. *Social Networks*, *28*(3), 247-268.

Krinsky, J., & Crossley, N. (2014). Social movements and social networks: Introduction. *Social Movement Studies*, *13*(1), 1-21. https://doi.org/10.1080/14742837.2013.862787

Levkoe, C. Z. (2014). The food movement in Canada: A social movement network perspective. *Journal of Peasant Studies*, *41*(3), 385-403.

Levkoe, C. Z., Ray, L., & Mclaughlin, J. (2019). The Indigenous Food Circle: Reconciliation and resurgence through food in Northwestern Ontario. *Journal of Agriculture, Food Systems, and Community Development*, *9*(B), 1-14.

Levkoe, C. Z., & Wakefield, S. (2014). Understanding contemporary networks of environmental and social change: Complex assemblages within Canada's 'food movement'. *Environmental Politics*, *23*(2), 302-320.

Liang, K., & Brown, A. (2019). Local Food Policy Councils: Adopting social network theories to support food systems. *Agriculture Research and Technology: Open Access Journal*, *22*(3). https://doi.org/10.19080/ARTOAJ.2019.22.556199

Luxton, I., & Sbicca, J. (2020). Mapping movements: A call for qualitative social network analysis. *Qualitative Research*. https://doi.org/10.1177/1468794120927678

McCartan, J., & Palermo, C. (2017). The role of a food policy coalition in influencing a local food environment: An Australian case study. *Public Health Nutrition*, *20*(5), 917-926. https://doi.org/10.1017/S1368980016003001

Migliore, G., Schifani, G., Guccione, G. D., & Cembalo, L. (2014). Food community networks as leverage for social embeddedness. *Journal of Agricultural and Environmental Ethics*, *27*(4), 549-567. https://doi.org/10.1007/s10806-013-9476-5

Neff, R., Merrigan, K., & Wallinga, D. (2015). A food systems approach to healthy food and agriculture policy. *Health Affairs (Project Hope), 34*(11), 1908–1915. https://doi.org/10.1377/hlthaff.2015.0926

Newman, M. E. (2005). A measure of betweenness centrality based on random walks. *Social Networks*, *27*(1), 39-54. https://doi.org/10.1016/j.socnet.2004.11.009

Newman, M. E. (2006). Modularity and community structure in networks. *Proceedings of the National Academy of Sciences*, *103*(23), 8577-8582. https://doi.org/10.1073/pnas.0601602103

Newman, L., & Dale, A. (2005). Network structure, diversity, and proactive resilience building: A response to Tompkins and Adger. *Ecology and Society*, *10*(1), r2 [online]. https://doi.org/10.5751/ES-01396-1001r02

Newman, M. E., & Girvan, M. (2004). Finding and evaluating community structure in networks. *Physical Review E*, *69*(2), 026113.

O'Hara, J. K., & Palmer, A. (2014, May). *Health care sector support for healthy food initiatives.* Conference paper presented at the National Value-Added Agriculture and The Northeast Regional Center for Rural Development "What Works" conference, Baltimore, MD.

Packer, M. M. (2014). Civil subversion: Making "quiet revolution" with the Rhode Island Food Policy Council. *Journal of Critical Thought and Praxis*, *3*(1), 6, 1-26. https://doi.org/https://doi.org/10.31274/jctp-180810-28

Ruef, M. (2002). Strong ties, weak ties and islands: Structural and cultural predictors of organizational innovation. *Industrial and Corporate Change*, *11*(3), 427–449. https://doi.org/10.1093/icc/11.3.427

Sands, C., Stewart, C., Bankert, S., Hillman, A., & Fries, L. (2016). Building an airplane while flying it: One community's experience with community food transformation. *Journal of Agriculture, Food Systems, and Community Development*, *7*(1), 89-111. https://doi.org/10.5304/jafscd.2016.071.012

Santo, R., Bassarab, K., Kessler, M., & Palmer, A. (2020). *State of the research: An annotated bibliography on existing, emerging, and needed research on food policy groups* (2nd Ed.). Johns Hopkins Center for a Livable Future.

Sbicca, J., Luxton, I., Hale, J., & Roeser, K. (2019). Collaborative concession in food movement networks: The uneven relations of resource mobilization. *Sustainability*, *11*(10). https://doi.org/10.3390/su11102881

Schiff, R. (2007). Food policy councils: An examination of organisational structure, process, and contribution to alternative food movements. Doctoral dissertation, Murdoch University..

Schiff, R. (2008). The role of food policy councils in developing sustainable food systems. *Journal of Hunger and Environmental Nutrition: Sustainable Food Systems: Perspectives from the United States, Canada, and the European Union*, *3*(2-3), 206–228. https://doi.org/10.1080/19320240802244017v

Schiff, R. (2019, November 4). Using Social Network Analysis to understand the impact of systems integration efforts: A Case Study from Thunder Bay. Conference paper presented at the 2019 Canadian Alliance to End Homelessness National Conference, Edmonton, AB. https://conference.caeh.ca/wp-content/uploads/RPCOH-1_Rebecca-Schiff.pdf

Schiff, R., & Brunger, F. (2015). Northern housing networks: Building collaborative efforts to address housing and homelessness in remote Canadian Aboriginal communities in the context of rapid economic change. *Journal of Rural and Community Development*, *10*(1), 1-18. http://search.proquest.com/docview/1877517998

Scott, J. (1988). Social network analysis. *Sociology*, *22*(1), 109-127.

Scott, J., & Carrington, P. J. (2011). *The SAGE handbook of social network analysis*. SAGE Publications.

Statistics Canada. (2016). *Census profile, 2016 Census. Thunder Bay [Census metropolitan area], Ontario and Ontario [Province]*. https://www12.statcan. gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CMACA&Code1=595&Geo2=PR&Code2=35&Data=Count&SearchText=thunder%20bay&SearchType=Begins&SearchPR=01&B1=Ethnic%20origin&TABID=1

Thunder Bay and Area Food Strategy. (2008). *Thunder Bay Food Charter*. Available at: http://tbfoodstrategy.com

Thunder Bay and Area Food Strategy. (2014). *Thunder Bay and Area Food Strategy: Connecting Food and Community*. TBAFS Strategic Action Plan. Available at: http://tbfoodstrategy.com

Walsh, C. C., Taggart, M., Freedman, D. A., Trapl, E. S., & Borawski, E. A. (2015). The Cleveland–Cuyahoga County Food Policy Coalition: "We have evolved". *Preventing Chronic Disease*, *12*(6), E86. https://doi.org/10.5888/pcd12.140538

Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications*. Cambridge University Press.

West, D. B. (2001). *Introduction to graph theory.* Prentice Hall.

Woolcock, M. (2001). The place of social capital in understanding social and economic outcomes. *Canadian Journal of Policy Research*, *2*(1), 11-17. http://faculty.washington.edu/matsueda/courses/590/Readings/Woolcock%20Soc%20Cap%20Development.pdf

Yeatman, H. (1994). *Food policy councils in North America - Observations and insights*. Wollongong: University of Wollongong.

Zachary, W. W. (1977). An information flow model for conflict and fission in small groups. *Journal of Anthropological Research*, *33*(4), 452-473. https://doi.org/10.1086/jar.33.4.3629752

Vol. 8 No. 2, pp. 80-110 August 2021

Canadian Food Studies La Revue canadienne des études sur l'alimentation

Original Research Article

Meaning as motivator to address distancing in the food system

Karen Rideout[a*]

[a] Karen Rideout Consulting

Abstract

Distancing in the food system prevents people from having full knowledge and making informed choices about what and how they produce, exchange, prepare, and eat food. This becomes problematic when the dominant food system contributes to a myriad of negative human health, ecological, and social outcomes. This paper reports on findings from a study that aimed to better understand the perspectives of people who resist distancing through examining their motivations for action to inform policy approaches to improve food system health. The research, conducted in India and Canada, comprised participant observation with organizations working to connect the production and consumption of food, as well as interviews with activists, consumers, and farmers involved with those organizations. These food system actors were motivated by a conviction that food is important, which manifested as meaningful relationships built and maintained through food, as soulful connections with food, and as a sense that everything is interconnected. The findings identify connection around food as a potential source of meaning in life that encourages awareness of broader issues, a sense of value and care, and ultimately motivation for action or change. This could have implications for healthy food system governance if frameworks such as determinants of health and healthy food environments are used to inform healthy public policies that cultivate a sense of meaning and awareness of the intrinsic value embedded in food.

Keywords: Distancing; food system; India; Canada; food policy; spirituality; sacred; connectedness; motivation; meaning; health

*Corresponding author: karen@karenrideoutconsulting.ca

DOI: 10.15353/cfs-rcea.v8i2.442
ISSN: 2292-3071

Introduction

Food system distancing is the physical and conceptual gap between people and food (Blay-Palmer, 2008; Clapp, 2012; Kloppenburg, Hendrickson, & Stevenson, 1996; Kneen, 1993). Distancing prevents consumers (or eaters) from understanding where their food has come from, how it has been transformed into its current form, who has been involved in the process, and how it has ultimately reached them. Distancing is a form of deskilling whereby people lose control over their personal food system because they do not or cannot understand the system through which the food is produced (Braverman, 1974). They lack the "information, knowledge, and analytical frameworks needed to make informed decisions that reflect their own 'fully costed' interests" (Jaffe & Gertler, 2006, p. 143). Physical and conceptual distancing are side effects of the increased processing and global integration characteristic of the industrialized food system. While consumers have experienced distancing, the food system has become more connected through the global flows of food, workers, and eaters. As the breadth of connections expanded, depth of meaning and relationship have eroded.

A healthy food system supports physical, social, and ecological well-being. It is a system in which nutritious food is available, where people have sufficient knowledge and means to make informed choices, and that functions according to principles of sustainability (American Public Health Association, 2007; Beauman et al., 2005; Lang, Barling, & Caraher, 2009). Although global integration can increase some people's access to certain types of food, distancing has been associated with decreased availability of healthy food choices, overconsumption of highly processed foods, unsustainable food industry practices, and widespread inequities (Beaudry & Delisle, 2005; Friel et al., 2017; Jaffe & Gertler, 2006; Lang, 2005; Lang et al., 2009; Ludwig & Nestle, 2008; O'Kane, 2012; Wilkins, 2005). Such harmful outcomes may be exacerbated by intentional anti-reflexive efforts that serve to neutralize negative health, environmental, or societal impacts of the food industry (Beck, Bonss, & Lau, 2003; Lang, 2005; Stuart & Worosz, 2012).

This paper draws on the findings from a field study conducted with individuals involved in resisting distancing in the food system in India and Canada between 2006 and 2012, a period during which India's retail and processing sectors were undergoing rapid westernization and industrialization (Shetty, 2002; Vepa, 2004). The research aimed to better understand the phenomenon of distancing from the perspective of people actively engaged in resisting it by examining how they are resisting, their views on the health of the food system, their motivations to resist distancing, and how distancing and resistance compare between two countries at different stages of food system industrialization. This analysis focuses on their motivations to engage in food system actions that support connectedness (between different levels of the food system, between actors, and between people and food itself). The motivations of people already working to build healthier, more sustainable, and more equitable food systems offer insights for how food systems governance might create conditions for broader application.

The Food: Locally Embedded, Globally Engaged (FLEdGE) research partnership identified six good food principles to guide sustainable food system change: farmer livelihoods, food access, Indigenous foodways, ecological resilience, food policy, and food connections (www.fledgeresearch.ca). This paper will examine each of these principles. By identifying motivations that drive people to support connections between producers and consumers, it highlights the importance of interpersonal connections through food and people's connections with food itself. These connections create opportunities to support farmer livelihoods, support traditional foodways, and raise awareness of social and environmental sustainability. The paper concludes with a discussion of how connectedness ascribes meaning to food, as well as opportunities to leverage connectedness and meaning through sensible food governance and policy.

Methods

This study used an assets approach to learn from people who were finding ways to resist distancing in the food system. Based on the idea that deficit or excessively critical approaches tend to disregard positive spaces, public health assets approaches are rooted in *salutogenesis*, asking what supports health rather than what causes illness (A. Morgan & Ziglio, 2007). Kloppenburg et al. (1996) advocate for assets approaches in food studies to identify hidden positive elements that already exist and could be scaled up. By studying resisters, I aimed to understand their motivations as a path to identify innovative approaches that might be applied more broadly. I conducted the research in Canada (an industrialized, high income country) and India (a rapidly industrializing, middle-income country) to gain insight about distancing in societies at different stages of industrialization, (Jaffe & Gertler, 2006). I selected one major hub organization in each country (headquartered in Vancouver and Delhi with extended regional and national networks) based on five inclusion criteria: (1) a focus on connections between producers and consumers, (2) a broad mandate to improve health (human, ecological, social), (3) non-governmental and non-corporate status, (4) food systems advocacy, and (4) English language operations.

This research was approved by The University of British Columbia Behavioural Research Ethics Board (Certificate H07-00439). I embedded myself as a volunteer within each organization over a three-year period to build relationships and understand context. I used the two organizations as network hubs (Stevenson, Posner, Hall, Cunningham, & Harrison, 1994) to identify individual interviewees and added additional participants through snowball sampling. I conducted in-person, semi-structured key informant interviews using a local interpreter when needed. The responsive interview guide (Rubin & Rubin, 2005) included six broad questions about how participants understood distancing, its impacts and causes, their actions and motivations to resist distance, and the perceived or anticipated outcomes of their efforts.

I conducted thirty-seven 1-hour interviews. Participants included staff members and volunteers, farmers, consumers or members, and collaborators from related organizations. All four participant categories were similarly represented in both countries, but participants in India were more geographically widespread due to the national focus of the hub organization. Participants ranged in age from early twenties to late eighties. Men and women were evenly represented in Canada. In India, about two-thirds were female, possibly due to the hub organization's origins as a movement to protect women's traditional knowledge and because female domains in Indian culture include foodwork such as farming and cooking.

Interviews were audio-recorded and transcribed. I used ATLAS.ti version 6.2 to analyze field notes and transcriptions, moving from deductive to inductive coding. I started with six *a priori* codes based on the interview guide and hypothesized motivations based on physical, social, and ecological health. These were supplemented with emergent codes during analysis. I then grouped and sorted the codes and memos to identify themes.

This research was done between 2006 and 2009 and has not been previously published. Subsequent literature searches through October 2020 confirm that the concept of meaning as motivation for food system action has not been substantively addressed in the published research. Distancing remains an issue despite increased popular awareness of food movements (Lusk, 2017). The global food system continues to be impacted by crises affecting human, social, and ecological health (such as—but not limited to—climate change (Willett et al., 2019), the COVID-19 pandemic (Laborde, Martin, Swinnen, & Vos, 2020), obesity and undernutrition (Swinburn et al., 2019), and food worker rights (Weiler, 2018)). The principles identified by the FLEdGE partnership and the impacts of a disconnected food system on human, ecological, and social health suggested to the author that these findings remain relevant and indicate opportunities to improve food system governance by fostering and leveraging meaning.

Results: motivations to resist distancing in the food system

The participants[1] in this study expressed a variety of motivations to build a more connected food system. Some were driven by external factors such as human health, sustainability, and social justice, but these were often secondary to a deeper meaning attributed to food. Put simply, they acted because food is important and they valued it. Their descriptions about the importance of food fell into three categories: (1) food as a basis for relationships; (2) food as sacred; and (3) food as central to an interconnected world. This finding was consistent among participants from Canada and India. There were surprisingly few between-country differences in motivation, a finding that may relate to social strata and demographics.

---

[1] The letters used in the quote identifiers indicate country (Canada/India), role (Farmer/Staff or volunteer/Consumer or organization member).

The staff, volunteers, and consumer participants in India were predominantly educated, middle- to upper-class urban dwellers who had experienced extensive globalization and westernization of culture and food systems (Bren d'Amour et al., 2020; Ghosh, 2011; Hawkes, Harris, & Gillespie, 2017). There were, however, two key distinctions: first, participants in India used more religious terminology (a matter addressed later in this section) and second, farmers in Canada were local food system activists living close to urban centres while those in India tended to live in remote villages and focussed on preserving traditional crops. As such, country is not discussed except where between-country differences were apparent.

Soulful connections through food

Participants described food as an important medium for deep or soulful connections with others. Soulful connections are emotional connections that have inner meaning. They differ from the more distant or superficial connections characteristic of the global industrial food system, where food travels long distances and passes through many hands (Barndt, 2002). Eating, sharing food, and feeding are soulful connections, acts of care, and expressions of gratitude.

Many participants recounted childhood memories and habits that focussed on food. In some cases, people felt connected to specific family members when they ate certain foods or remembered tastes, smells, and food practices. In the present, sharing food in a meaningful social context improved the quality and experience of eating. Participants described "good" food as a tool to strengthen human connections and improve their experience of eating: "The real value of food is nourishing—not only our stomachs, but our minds, our social relationships, and nourishing the planet" (CS4). They also used food to connect with land or place. As one participant said, "agriculture is the most intimate interaction we have with the Earth." Food from the Earth is ultimately incorporated into the body, making it one of the few things that can connect individuals, communities, and the planet (Bell & Valentine, 1997; Berry, 1977; Winson, 1993).

Some participants described feeding as an act of nurturance and love. Women in India were particularly expressive about the nurturing aspect of cooking and the joy of feeding others. Despite the realities and time constraints of modern life, feeding is commonly viewed as "care work," regardless of whether people feel able to give it sufficient time and attention (Cairns, Johnston, & Baumann, 2010; K. Morgan, 2010; Szabo, 2011). One consumer in India told me that she chose to stay at home when her children were young so she could express care through carefully and slowly prepared meals, a belief that she continued to demonstrate later in life when preparing food for others.

Food was also valued for its role in connecting producers and consumers:

> I think connecting the producers with the consumers is something essential. Because if consumers…know how that food is produced, they'll have a lot of respect for the food they are eating and for the people who are producing that food…The kind of hardships our farmers have to go through and still they remain growing food for us, is to my mind an act of total giving. (IS1)

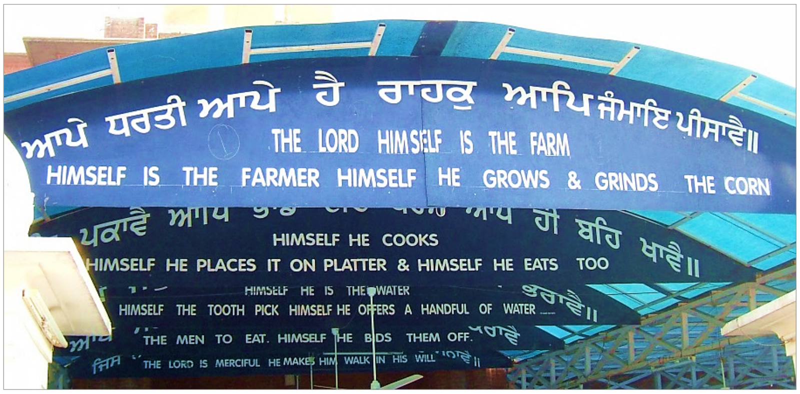
Many participants felt that the food system could be improved by fostering respect for relationships between people in different roles. Respect begets gratitude for the food and the effort that created and prepared it and can transcend ego-centric desires for personal gain or profit to support more meaningful relationships. One Canadian farmer who attended farmers' markets said,

> People will come up to me, and they'll say, "Thanks. Thanks for being our farmer." And I just take out my wallet and fill it with all this great big fat satisfaction and go home. It doesn't matter if I made a nickel or not, you know? (CF2)

The need to earn a viable living notwithstanding, this farmer was highly motivated by the respect and gratitude of the people he helped to feed.

Participants also used food for sacred or spiritual connection, often referencing an intangible relationship with something greater than themselves. They described food in terms of deep bonds to other people (e.g., sharing food in religious ceremonies), to nature (e.g., growing food), or to God (e.g., prayer or the divine) (fig. 1). In India, people were more explicit with spiritual and religious language, but people in both countries evoked reverence. Canadian comments about spirituality or soulfulness were reminiscent of William James' ([1902] 2004) concept of personal religion—"the feelings, acts, and experiences of individual men [sic] in their solitude, so far as they apprehend themselves to stand in relation to whatever they may consider the divine" (p. 36)which does not suppose institutions or the existence of a god.

Figure 1: Signs over the entrance to the langar (communal kitchen) at the Sikh Golden Temple in Amritsar, India. Free meals are offered to anyone who enters the temple complex. The words describe a connection between the divine and food as well as providing food as a sacred offering. (Photo: Karen Rideout)


ਆਪੇ ਧਰਤੀ ਆਪੇ ਹੈ ਰਾਹਕੁ ਆਪਿ ਜੰਮਾਇ ਪੀਸਾਵੈ ॥
THE LORD HIMSELF IS THE FARM
HIMSELF IS THE FARMER HIMSELF HE GROWS & GRINDS THE CORN
ਪਕਾਵੈ ਆਪ
ਹੀ ਬਹਿ ਖਾਵੈ ॥
HIMSELF HE COOKS
HIMSELF HE PLACES IT ON PLATTER & HIMSELF HE EATS TOO
HIMSELF HE IS THE WATER
HIMSELF THE TOOTH PICK HIMSELF HE OFFERS A HANDFUL OF WATER
THE MEN TO EAT. HIMSELF HE BIDS THEM OFF.
THE LORD IS MERCIFUL HE MAKES HIM WALK IN HIS WILL

People expressed a sacred ethic of sharing and abundance that opposed the individualization typified by the industrial food system.

> If you go to any traditional household, they will not let you go away without eating because that's part of a spiritual duty… To me, all the problems in food began with reducing food to a commodity… To the extent that food is considered sacred, your duty with respect to food is sharing it, giving it… In a strange, interesting kind of way it creates abundance. The minute it's a commodity, it creates scarcity. (IS3)

This participant is referring to the ancient Indian concept of *annadaana* described in Hindu texts such as the Taittiriya Upanishad. Annadaana means the giving of food: one should always give to the hungry and one should not eat while there are still hungry people nearby (Shiva, 2002). Traditional Hindu culture values feeding or giving food and frowns upon eating to excess (Moreno, 1992). This spiritual duty to share shifts focus away from individual consumption toward commensality and a practical application of sacred connections as a form of decommodification.

The ethic of sharing was also expressed metaphorically. One activist described his first effort at growing food as a 2×4-metre plot of wheat. He wanted to sow, nurture, harvest, grind, and bake the wheat into two loaves of Eucharistic bread[2] that could be shared by many people.

---

[2] Eucharistic bread is used in the Christian sacrament of Holy Communion, a symbolic re-enactment of the Last Supper of Jesus, in which he broke bread and shared with his disciples, instructing them to break and share bread in remembrance of him (Luke 22:19).

The idea of feeding many people from the same loaf suggests spiritual abundance and is reminiscent of the Bible story in which Jesus fed five thousand people with five loaves and two fishes (Matthew 14:13–21).

Food has previously been identified as a vehicle for connection. Friedmann (1999) recognized the shift toward more, but less meaningful, connections as a function of industrialization and globalization. "The most intimate daily practices of people around the world who are unknown to one another are connected—and disconnected—through growing, processing, transporting, selling, buying, cooking and eating food" (p. 36). This suggests that industrial food system connections are more superficial or less soulful. In response, there is a growing literature on reconnection in the food system (e.g., Dowler, Kneafsey, Cox, & Holloway, 2009; Gerber, 2017; Gliessman, 2016; Hinrichs, 2000; Kneafsey et al., 2009; Sage, 2003). People seek out more connected food system alternatives for a range of reasons that are not always easy for them to articulate but that center around an ethic of care (Dowler et al., 2009; Kneafsey et al., 2009). Not surprisingly, food charity continues to be a visible activity of Christian organizations amid declining church attendance, and the *langar* tradition of feeding anyone who comes to the gurdwara (temple) is strongly held by Sikh communities in India and Canada (Desjardins & Desjardins, 2009; Lindsay, 2008). Such practices do not require religion per se, but are based in values of connection, care, and responsibility for fellow humans.

Sacred connections through food

The intrinsic value of food often went deeper than the relationships or connections participants had with or through food. They regarded food and food-related activities with reverence. More than a medium to connect with other people, places, or times, food itself was sacred. They celebrated nourishing food yet raised concerns about trends toward conspicuous consumption and gourmet eating.

Conscious eating nourishes the soul (Nhat Hanh & Cheung, 2010). Study participants described nourishing food as fulfilling, in contrast to food products consumed simply as fuel:

> We have…products that…basically aren't food. They're for us to consume because there is something that we're wanting to fill up, and we're wanting that experience of food. It's like an addiction that's trying to fill that hole that is more properly addressed through relationships and culture and celebration and slowing down and spending time together. (CS1)

Others similarly described how highly processed or 'junk' food may be an attempt to fill a spiritual void (see Morrison, Burke, & Greene, 2007).

There is much about food that can be made sacred, whether it be ritual feasts or daily food habits; it need only be "regarded as more significant, powerful, and extraordinary than the self" (Belk, Wallendorf, & Sherry Jr, 1989, p. 13). Participants described food as "a holy thing" in traditional Indian society and there was much sacred ritual and respect given to the practice of preparing food. In India, Hinduism is as much culture as religion (Klostermaier, 2007): Hindu practices and beliefs are prevalent even among non-Hindus and secular people. The Hindu Upanishads characterize food as a manifestation of both *Brahman* (God or ultimate Reality) and the self (divine nature) and therefore deserving of respect and reverence (Easwaran, 2007). We are instructed to "respect food: the body is made of food" (Taittiriya Upanishad, Part III:8.1). In Jain philosophy, foods are "fruits of the Earth" and thus deserving of respect, reverence, and gratitude because the Earth is sacred (Kumar, 2002). There are rituals from virtually all human cultures that link food with deities or religion, suggesting that it is not only fuel for the body but also feeds the soul (Desjardins, 2015; Kass, 1999; Moore, 2002).

Spirituality and sacredness were also expressed through the growing and harvesting of food. One Canadian farmer used small-scale farming to practice Christian spiritual beliefs. By participating in what he saw as the miracle of agriculture, his lived experience became more real and meaningful than a religious institution.

> You have to find ways of living out your beliefs on a day-to-day basis, so I think that's more what we're doing. And I think that…has sort of reinforced that there's something really incredible about the process of life and death and that interconnection in agriculture. (CF4)

Growing food was a way for this farmer to enact his spiritual convictions outside the church. Because he saw God in the miracle of growth, farming became an act of faith and worship.

Eating can also be a sacred practice. One follower of Buddhist philosophy spoke of eating as mindfulness practice, noting that one appreciates and experiences flavour by eating slowly and attentively (see also Nhat Hanh, 1991). She felt that food's intrinsic value warranted respect. As the monk Thich Nhat Hanh writes, "The purpose of eating is to eat" (1991, p. 23). This philosophy encourages reverence for the food rather than limiting it to nutritional value.

> Traditionally, in India, food, the eating of food was considered an act of prayer. And the grace that I grew up saying as a child was, "With every morsel of food take the name of God, because this food is the truth." (IC1)

Many traditions say a "grace" before meals to turn the act of eating into an offering—a recognition that food connects us to a wider world, and even that we will eventually become food—and reminds eaters of the importance of gratitude (Snyder, 2002).

These ideas are in keeping with common religious ideas that food can take on the holiness of a deity (Desjardins, 2015; Desjardins & Desjardins, 2009), but to describe food as sacred is not necessarily a religious idea. Any part of life can be sacralised if viewed with deep reverence, respect, or gratitude for its intrinsic value (Belk et al., 1989; Elkins, Hedstrom, Hughes, Leaf, & Saunders, 1988; Kumar, 2002). To these participants, food was sacred and therefore deserving of special attention. Their thoughts and actions with respect to food and the food system signified intentionality in that they were directly *about* food (Byrne, 2006; Siewart, 2011). They were motivated by something intrinsic to food itself and by their relationship with food, rather than solely by some external effect within the food system.

Interconnectedness and oneness

The food system actors in this study were motivated not just by the way they valued food and food-related connections, but also by a sense that food was part of everything. They spoke of food in broader terms than personal choices or the food system. Food was not a microcosm *representing* larger meanings; food was the *manifestation* of something greater than all of us. Because we take nature into our bodies when we eat and create new life when we farm, food reveals the interconnections between humans and the rest of nature. Participants described food as part of the interconnected totality of human life, the natural world, and the divine. As one interviewee said, "what we're talking about is spiritual, not material, and it is reconnecting people to themselves, which reconnects them to everything." Several participants described food as a central tenet of human civilization.

> We have the need for food, and we have built our civilization around that. And where we get disconnected from it, we also get disconnected from ourselves and each other. So, to me, health is not just only whether or not my body's healthy. (CS1)

This quote illustrates a holistic view in which the health of the individual is interconnected with the health of the community and the environment. Wendell Berry critiques the artificial dualism imposed on body and soul (or physical and spiritual health) in industrial society by pointing out that people without food become cadavers but a machine without power is still a machine (Berry, 1994). We don't just observe nature; we are part of nature. Physical bodies are made from elements of earth and ultimately become part of that whole when we die (Berry, 1977).

Many participants thought about the implications of their actions within the food system. They felt that production and consumption had wide-reaching impacts because of the interconnected nature of the food system.

> My personal view is that we should all probably pay more attention to what and how we eat because it has implications for our health, for our local economy, for the environment, and really, at the end of the day, for the distribution of wealth and power within the international system. Something as simple as the food that we eat has implications internationally that we're responsible for. (CP3)

Food system actors from both countries were explicit about how food fit into their spiritual view that all things are interconnected.

> I define spirituality…as the interconnectedness of everything… There is certainly something much larger than me as an individual that the health or the disease of the planet depends on. And so, if everything is connected, then we begin to understand that whatever we do (with respect to food)…affects other people. (CS1)

This sentiment of spiritual interconnectedness is prevalent in Indian culture and sacred texts such as the Bhagavad Gita, the Hindu Vedas, the Upanishads, and in the *ayurvedic* system of medicine, all of which describe food as part of a totality that includes the divine.
One study participant noted how food affects our *prakriti* (nature). *Prakriti* is represented by three *gunas* (qualities) of *sattva* (virtue), *rajas* (excitement), and *tamas* (dullness) (Klostermaier, 2007; Kumar, 2002; Wolpert, 1991). *Sattvic* food is sacred, simple, pure, fresh, local, and unprocessed; *rajasic* food is spicy, rich, or fancy; and *tamasic* food is preserved, foul, stale, spoiled, or intoxicating (Khare, 1992; Klostermaier, 2007; Kumar, 2002). In this view, highly processed industrial foods would be considered *tamasic*, the quality that sees nature as inferior, while fetishized foods would be considered *rajasic* because of the focus on image and excess waste (Kumar, 2002). *Sattvic* or fresh, simple food has a divine quality and facilitates connection between the Self and the Universe. Both terms derive from the root "Brh": to grow.

The concept of using food to connect with "self/Brahman" comes from the pantheistic belief that everything is interconnected and thus the sacred or divine resides in all things. The hymn *In Praise of Food* from the Rigveda explains, "In thee, O Food, is set the spirit of great Gods" (Rigveda, Hymn 187:6; Griffith, [1896] 2006, p. 251). Perhaps the most familiar references to the totality of food appear in the Taittiriya Upanishad, which explains that bodies are made of food. Food forms the first of five *kosas* (sheaths) that eventually lead to a state of bliss or oneness, meaning that food is God and therefore is sacred:

> Bhrigu went to his father, Varuna, and asked respectfully: "What is Brahman?"
> Varuna replied: "First learn about food, …That is Brahman." (Taittiriya Upanishad, Part III: 1.1 Easwaran, 2007, p. 257)

Several participants described seeds in terms of our connection to the rest of the world:

> When you see a child plant a seed, and they see the seed grow, it's a miracle, and it changes them. It changes their relationship to the Earth and nature. And I think that's true for all of us—I think inherently people know about their connectivity. (CS4)

The interconnectedness of the food system includes spiritual relationships between people that were mediated by food. Several people in India spoke about energetic bonds and a belief that energy is transferred through food, so the people involved in producing it should be treated with respect or it will carry the negativity of their experience.

> There's a Tibetan idea that even in the processing of the food and the packaging of it, there's an energy that goes with it. . . . Even if it's organic food and grown very properly but…the farmers are really not getting an input back from it, then it becomes tainted… Spiritually, there is an exploitation factor. (IC9)

Likewise, food was described as a host for positive energy:

> And to work for the biodiverse farm you have to have a lot of patience and a real love for that act of producing food, for the soil. So when food is produced with so much positive energy and you are aware of that positive energy, then naturally that connection will work for the well-being of your own body [as an eater] but also for the well-being of people who are producing. (IS1)

Desjardins and Desjardins (2009) have similarly found that many Sikhs feel that communal meals offered at the *gurdwara* (temple) tastes better.

Feeding as an expression of care was discussed in the section about connecting through food, but feeding was also discussed in terms of spiritual intention:

> In Ayurveda, they say…don't ever cook with the idea that it's just one person. That is why traditionally in India they have this business of feeding the cow, the crow, the dog, and a poor person passing by. So you actually cook for four other people. Not maybe in terms of quantity, but definitely in terms of attitude. (IC9)

This participant was referring to a tradition of giving the first few morsels of food to nearby animals and sharing with the hungry before consuming food oneself. This spiritual duty to share food can be carried out even when alone if the intention is present.

These stories show how food can serve as a medium for connection and how it represents, or is, everything from the most mundane to the divine. Concepts of interconnectedness and oneness highlight the intrinsic value of food described above.

Through the integration of nature with the body through eating, humans solidify a connection with the world. If nature is everything, and nature is incorporated into the physical body as food, then eating connects people with all of nature. Whether one recognizes that all actions related to food have implications elsewhere or sees the divine on her plate, the reality that food is connected to everything makes it deserving of attention.

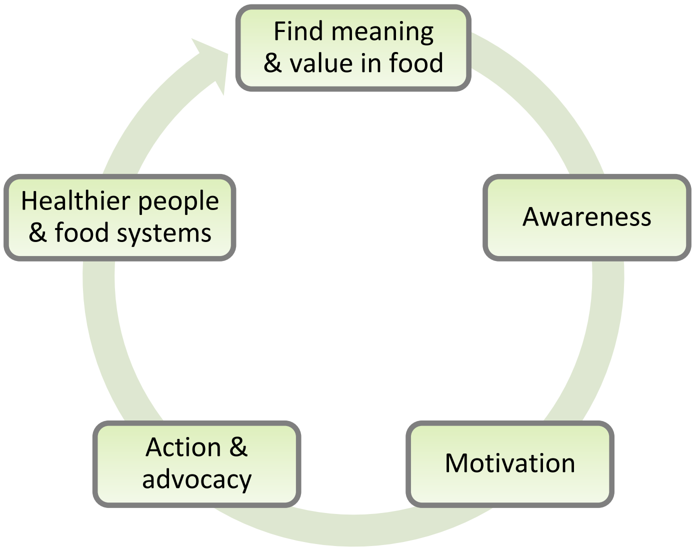
Discussion: Food's intrinsic value as a driver of change

These results show how farmers, activists, and consumers resisted food system distancing because of how they valued food. Intrinsic value implies that people are motivated to seek that which has value (Taylor, 1978). The participants in this study were motivated by their perception of the intrinsic value of food, which they saw as a connector, as worthy of reverence and respect, and as representative of the oneness of all life. In an industrialized food system that masks the value of food, cultivating population-level recognition that food is deeply important could be a path toward positive change. As one participant pointed out, "Basically, we have stopped paying attention to the importance of food" (IS9). This implies a need for a public ethic and politics of care for food as ways to care for others (Morgan, 2010).

Necessary but not sufficient

Many participants felt that positive food system change would follow if people had more opportunities to develop deep relationships around food. They talked about how the values expressed through the food system impact the environment, producers, and the physical, mental, emotional, and spiritual wellness of eaters. Although individual consumers should not be held responsible for the impacts of unhealthy food environments (Black, Moon, & Baird, 2014; Frieden, 2010), awareness can be a starting point. Recognition of food's intrinsic value is a potential first step toward system change in face of widespread distancing. Value is a form of respect, which leads to care, which may (though not necessarily) in turn lead to action (fig. 2). People are unlikely to be motivated to enact change unless they appreciate food, "because it's only when they really have a sense of oneness with the land, they will respect the land and the food" (IS3). Disconnection hides the real value of food in our lives, thus rebuilding those connections could encourage people to become aware of—and care more about—issues such as sustainability, equity, and health (Bennett, 2014; Finn, 2014).

Figure 2: Conceptual model of meaning and value as a pathway to food system change. Governance approaches that foster recognition of food's intrinsic value and encourage connection to meaning through food can build awareness and motivate care-based actions and politics. Such approaches offer a path toward healthier, more sustainable, and more equitable food systems. Healthier people and food systems that facilitate the ability to find meaning and value in food reinforce the cycle.



Most of the critical literature on food systems focuses on one or more issues or side effects associated with food, such as health (e.g., Lang, 2009; Stuckler & Nestle, 2012), the environment (e.g., Kloppenburg, Lezberg, De Master, Stevenson, & Hendrickson, 2000; Svenfelt & Carlsson-Kanyama, 2010), or social factors (e.g., Hinrichs, 2000). However, Kloppenburg et al. (2000) noted that people involved with alternative food systems valued food for reasons beyond its extrinsic functions. They described food as a source of soulful connections or spiritual nourishment and felt that recognizing the sacred in food was a way to resist commodification. Beingessner and Fletcher (2019) found that some Canadian prairie farmers who resisted the dominant export-oriented commodity system were driven by a desire for meaningful connections and personal relationships with consumers. Dowler et al. (2009) found that people who engaged in alternative food systems were motivated by care about things such as local food producers, holistic concepts of health, or the well-being of future generations. This analysis extends the notion of care to suggest that care for food itself can motivate people to act (when they have choices available) or to support policies rooted in care.

Searching for the elusive "right" food system issue to address and a "proper" way to address it is not likely to be effective in managing food systems. Normative ideology assumes there is a "right" way to eat or an "ideal" food system and problematizes some issues at the expense of others (Halkier, 2001).

Messages take a moralistic tone and are subject to changing norms (Nathoo & Ostry, 2009). Valuing food itself (versus some specific feature or impact of the food system) also reduces the risk of moral superiority and exclusionary attitudes for which some alternative food systems movements have been criticized (e.g., Allen, 1999; Ankeny, 2016; DeLind, 2011; Desrochers & Shimizu, 2012; DuPuis & Goodman, 2005; Guthman, 2007a, 2007b; McCann & Bechsgaard, 2018; McWilliams, 2009; Szabo, 2011). Heldke (2012) also warns of the dangers of dualisms—local versus cosmopolitan, individualism versus communalism, urban versus rural, industrialism versus agrarian—which are essentially debates between opposing ideologies. Similarly, Born and Purcell (2006) advise against slipping into the "local trap," whereby the focus is on a particular means (e.g., localization) rather than the broader goal of a healthier, more just, or more sustainable food system. Such dichotomies "erase nuance" and reinforce divisive mentalities whereby people become entrenched in their position, often ignoring contextual factors and new ideas (Heldke, 2012; Hinrichs, 2003).

While dogmatic approaches ignore the interconnected realities of food and food systems, a focus on intrinsic value could direct efforts toward broad goals that can be sustained regardless of social norms, politics, or science. By definition, that which has intrinsic value is desired for its own sake, as an end rather than a means (although this does not preclude the existence of other external values) (Taylor, 1978). In the case of food, recognition of intrinsic value means desire for a healthier food system rather than a single path toward some "best way" to produce or eat food (see K. Morgan, 2010; Nathoo & Ostry, 2009).

Meaning, value and motivation

If that which is valued holds meaning, then food's intrinsic value offers a basis for meaningful action within the food system. Meaning is an important aspect of the human condition (Frankl, [1959]2006) that refers to "the cognizance of order, coherence, and purpose in one's existence, the pursuit and attainment of worthwhile goals, and an accompanying sense of fulfillment" (Reker & Wong, 1988, p. 221). It helps people adapt and make sense of the world and their place in it (Park, 2005). The meaning of food in people's lives could therefore help shift society toward food system governance models that support values such as equity, sustainability, or health.

Need for meaning in life

Humans have an innate need for and desire to find meaning (Epstein, 1985; Heine, Proulx, & Vohs, 2006; Steger, Kashdan, Sullivan, & Lorentz, 2008). Heine et al. (2006) describe meaning in relational terms as an existential need to connect with people or things beyond the self. They contend that humans have an essential drive to find a coherent framework with which to make sense of life, without which people feel disrupted and disconnected.

As a result, we are driven to find meaning in our lives (Frankl, [1959]2006; Reker & Wong, 1988; Steger, Frazier, Oishi, & Kaler, 2006; Steger et al., 2008). While failed searches for meaning have been associated with psychopathologies or "existential sickness" (Elkins et al., 1988; Frankl, [1959]2006; Morrison et al., 2007; Reker & Wong, 1988; Steger et al., 2008), finding or having meaning is fulfilling (Reker & Wong, 1988). Life events become more coherent and everyday occurrences more significant (Frankl, [1959]2006; George, Ellison, & Larson, 2002; Park, 2005; Reker & Wong, 1988; Steger et al., 2006). This research shows how growing, selling, or eating food in meaningful, connected contexts supports a greater sense of fulfillment and highlights the larger purpose of mundane food-related activities.

Meaning and motivation

Meaning can inspire action because of the sense of purpose and context it provides. Research on meaning in the workplace suggests that employees are motivated more by intrinsic factors such as a sense of purpose or feeling connected to something larger (Dehler & Welsh, 1994; McKnight, 1984) than by extrinsic factors such as job perks or salary. When people enjoy their work because it has meaning for them, it allows them to enter states of flow during which performance improves (Csikszentmihalyi 1975, 1990; Dehler & Welsh, 1994). People are more motivated to engage in mundane tasks when they are seen to be connected to higher goals or something that is deeply valued (King, Richards, & Stemmerich, 1998; Morrison et al., 2007). There is also emerging evidence that meaning in life is associated with better physical health and positive health behaviours including healthy eating (Czekierda, Banik, Park, & Luszczynska, 2017; Roepke, Jayawickreme, & Riffle, 2014).

Meaning and spirituality

While participants in India were more inclined to use religious language, those in Canada spoke of soulful relationships, connectedness, and fulfillment. Canada is an increasingly secular nation, with rates of declared religious affiliation and attendance at religious services declining steadily since the middle of last century (Clark, 2000, 2003; Lindsay, 2008). Secularization, however, does not imply meaning is less important, rather that people are looking elsewhere to find it (Bibby, 2011, 2012). Secular people may actually engage in a greater search for meaning because they are not receiving a regular "package" of social connection and coherent teachings about meaning in life that foster a sense of well-being (Eckersley, 2007). According to religious sociologist Reginald Bibby (2011), the social and spiritual roles traditionally played by the church in Canada could potentially be met elsewhere. People find alternatives to the functions once provided by regular attendance at religious services.

Some participants, such as the farmer who replaced church with agriculture as his way to participate in the miracles of life, explicitly declared that food-related activities were a substitute for more organized religious practice. Another noticed that farmers' markets seemed to fill the role that church once played in community:

> People need to reconnect with each other and their communities and the place that they live in. There are farmers' markets that are so routine now, and farmers' market goers that are so much into the sort of schedule and rhythm of a farmers' market… "If I don't see my friends there, I go home and call them and find out if there's something wrong." It's, I think, that need in peoples' lives for a regular community connection, kind of like church. (CP4)

In secular western societies, spirituality can be a reflection on "lived experience" that does not necessarily include organized religion (Crisp, 2008; Frohlich, 2001). Spirituality is a form of constructed inner meaning that relates more to authenticity and truth of one's own experience than it does to religious canon. People "create and recreate meaning, joy, and shared life from whatever materials are at hand" (Frohlich, 2001, p. 68). Thus, in a secular society like Canada, connectedness around food-related activities can and does become a form of worship.

There has been limited scholarly work on the relationship between spirituality and health (Miller & Thoresen, 2003; Raeburn & Rootman, 1998; Vader, 2006), particularly with respect to food. However, religion and spirituality have been associated with better health, lower rates of diet-related chronic disease, and increased fruit and vegetable intake (Tan, Chan, & Reidpath, 2013). Among two groups of Thai farmers who adopted organic methods, those supported by a temple reported deeper eco-spiritual values as well as a stronger connection to nature, better health, and improved on-farm biodiversity than those supported by a community group (Kaufman & Mock, 2014; Michopoulou & Jauniškis, 2020). The inclusion of spirituality in definitions of health promotion (O'Donnell, 1986, 2009) and as a determinant of health (Vader, 2006; World Health Organization, 2005) suggests that the presence of an inner life is associated with healthy behaviours.

Conclusion: Meaning and value as a tool to promote healthier systems

This research suggests that finding meaning or seeing the intrinsic value in food could support healthy, sustainable, and equitable food systems. Distancing results from disconnection or breaking of the spiritual bonds we have around food and the resulting meaninglessness or spiritual void creates an "existential vacuum." In western culture, people sometimes try to fill that emptiness through superficial consumption (e.g., of junk foods) if they do not find fulfillment in more soulful ways (e.g., through deep, communal food experiences) (Morrison et al., 2007). The participants in this study valued food, saw it as sacred, or found meaning in it.

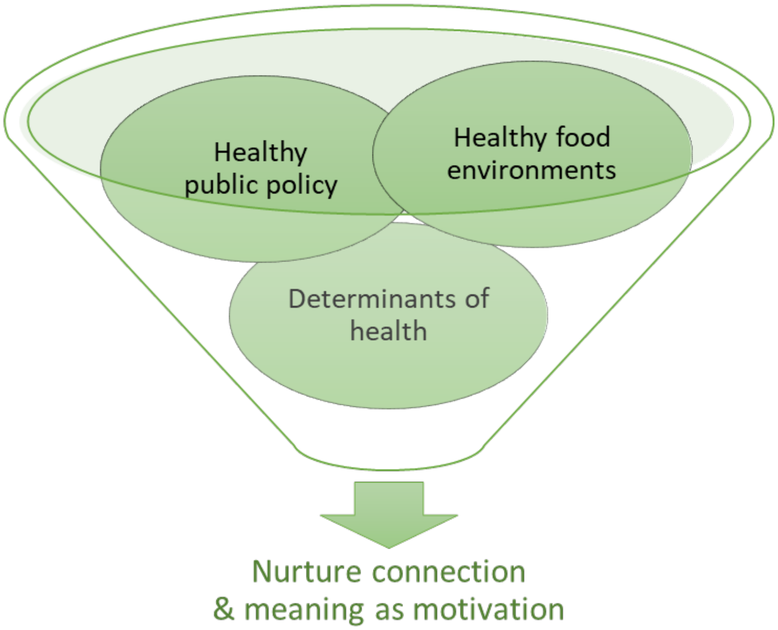
For them, eating or consuming food was transcendent; it was *about* food because they were connected *through* and *with* food. The forms of consumption participants described as "mindless," "unfulfilling," or "attempts to fill the void" were individualized and lacking in meaning, while those described as "nurturing," "communal," or "celebratory" were based on connections and relationships that went beyond the self. The focus wasn't what food could do for them in nutritional terms; it was simply about the positive attributes of food.

Nurturing connection to meaning (i.e., intrinsic or sacred value) through food could therefore serve as effective motivation for food systems change. The spiritual philosopher Thomas Moore (2002) refers to "disenchanted times" during which all manner of food activities have been "short-circuited" and suggests that imagination, attention, and time could restore food's ability to serve the soul. Wendell Berry argues that the industrial food system has transformed us from eaters to "*mere* consumers," taking away our ability to fully engage with our food and experience the true pleasure of eating (Berry, 1992, p. 378). Carlo Petrini (2007), founder of the Slow Food Movement, advocates for a "new gastronomy" distinct from the world of the gourmet. This "reasoned knowledge of everything that concerns man as he eats" (p. 55) stresses the importance of complete knowledge and real choice in *all* aspects of the food system (e.g., social, ecological, medical, cultural, political, economic, culinary) as well as pleasure in food. Industrialization has reduced our ability and desire to celebrate and appreciate food because many of the processes of industrialization, if known, would destroy any sense of pleasure in eating (Berry, 1992; Korthals, 2004). Empirical data point to many ideas about how to address problems in the food system, but meaning and spirituality might be the missing pieces needed to shift attitudes and behaviours (Bennett, 2014).

The resisters of distancing who participated in this research found a way to connect with the deeper meaning in food. This soulful connection motivated them to find ways of sidestepping the mainstream industrial food system, to find or create cracks that they could inhabit in a more connected way. These cracks are niches or alternative systems that are inhabited by a few. With time, those cracks might be co-opted by industrial forces or they may expand to create viable alternatives (Hendrickson & Heffernan, 2002).

Existing tools of food system governance could be harnessed to foster the motivating types of meaning, value, and connection identified in this study. Robust public policy, health-supportive environments, and determinants of health approaches have all been applied to improving the sustainability and equity of food systems. They could also be used to support a broader recognition of food's intrinsic value and the meaning food can bring to our lives, thus motivating and facilitating greater attention and care to how we produce, exchange, and consume food.

Figure 3: Governance approaches to leverage meaning as a motivator for healthier food systems.


Healthy public policy
Healthy food environments
Determinants of health
Nurture connection & meaning as motivation

Determinants of Health

Access to healthy food is now widely accepted as a determinant of health (McIntyre, 2003; Mikkonen & Raphael, 2010). The findings from this research suggest that recognition of the sacred value of—or spiritual connections with—food could be a determinant of healthy food systems. Spirituality has been recognized as a determinant of health in the *Bangkok Charter for Health Promotion in a Globalized World* (Vader, 2006; World Health Organization, 2005) and by the editorial board of the *American Journal of Health Promotion* in its definition of health promotion (O'Donnell, 1986, 2009). Spirituality has also been included in definitions of sustainable food systems (Blay-Palmer & Koc, 2010; Hinrichs, 2010; Kloppenburg et al., 2000). Recognizing the sacredness or intrinsic value, i.e., finding meaning, in food is akin to developing a spiritual connection with food.

Healthy food environments

Food environments are made up of social, physical, and political factors that influence food access, quality, and behaviours in a community (Glanz, Sallis, Saelens, & Frank, 2005). They affect people's food options, choices, and behaviours that determine where, when, how, and with whom food is eaten (Rideout, Mah, & Minaker, 2015). There is a growing body of evidence showing how food environments impact diet and health (Black et al., 2014; Larson & Story, 2009; Story, Kaphingst, Robinson-O'Brien, & Glanz, 2008), as well as frameworks and governance tools to guide the creation of food environments that support nutritional, ecological, and community health (BC Centre for Disease Control, 2018; Story et al., 2008).

Healthy public policy

Healthy public policies support population health through positive influences on the social and environmental determinants of health (Milio, 1988; National Collaborating Centre for Healthy Public Policy, 2010). Food choices are constrained by the food system itself (Beaudry, Hamelin, & Delisle, 2004), just as individuals' health choices are impacted by factors beyond their control (Frieden, 2010). People often have to "choose the best they [can] among the miserable options available to them" (Milio, 1990, p. 45). Traditional policy frameworks without direct feedback mechanisms exacerbate distancing in the food system (MacRae, 2011) such that consumers often lack knowledge about the decisions they are making and therefore cannot exercise real choice. Even when consumers have adequate knowledge, it can be difficult to make healthy food choices because the food industry largely determines what foods are available to choose from (Lang, 2009). Food choices are the culmination of institutional arrangements, actors from multiple sectors such as government and industry, and consumer preference (Korthals, 2004). Given the power and influence of the food industry, outside intervention is needed to create an environment in which individuals can make informed decisions (Ludwig & Nestle, 2008; Parsons & Hawkes, 2019). Governance through healthy food policy can influence both the options and information available and create new norms of production, distribution, and consumption throughout the food system. Ultimately, this could create an environment in which the types of choices made by highly motivated individuals such as the resisters in this study could shift toward the norm.

This research used the perspectives and motivations of resisters to offer a new paradigm to consider healthy food systems. Without awareness of meaning, it is easy to lose respect for the sacred value and intimate nature of food. It is therefore essential to facilitate recognition of the deep, sacred meaning of food and to make it easier for people to act on that meaning. Healthy choices, or at least real choices based on complete knowledge and understanding, should be the easiest choices rather than the most challenging. Recognition of food's value and meaning in human life is vital if not sufficient to create a healthy food system.

While recognition of meaning cannot be governed, structural changes could foster environments in which individuals can engage with food in more meaningful ways.

Conflict of interest statement: I have no conflicts of interest to declare.

Acknowledgements: I am grateful to Heather Pritchard and the team at FarmFolk CityFolk; Vandana Shiva, Maya Goburdhun, and everyone at Navdanya; and organizations and individuals from their networks who made this work possible through their support for this project. I wish to thank Sarmistha Kabi for Orriya translation, Kamala Kumari for Hindi and Garwhali translation, and Usha Maira for Hindi lessons. I thank the individuals who participated in interviews for generously sharing their time, perspectives, and insights.

This paper is based in part on doctoral research conducted through The University of British Columbia and funded by the Pierre Elliott Trudeau Foundation, the Shastri Indo-Canadian Institute, and the Social Sciences and Humanities Research Council. I am grateful to my PhD supervisor Gwen Chapman for her wisdom and guidance.

I also with to thank Alison Blay-Palmer for feedback on an earlier version of this manuscript, as well as anonymous reviewers for their insightful comments.

References

Allen, P. (1999). Reweaving the food security safety net: Mediating entitlement and entrepreneurship. *Agriculture and Human Values, 16*, 117-129. https://doi.org/10.1023/A:1007593210496

American Public Health Association. (2007). Toward a healthy, sustainable food system (Policy number 200712). https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/29/12/34/toward-a-healthy-sustainable-food-system

Ankeny, R. A. (2016). Tastes like moral superiority: what makes food 'good'? *The Conversation*. https://theconversation.com/tastes-like-moral-superiority-what-makes-food-good-59581

Barndt, D. (2002). *Tangled routes: Women, work and globalization on the tomato trail*. Lanham, MD: Rowman and Littlefield.

BC Centre for Disease Control. (2018). *Healthy built environment linkages toolkit: Making the links between design, planning and health, Version 2.0*. http://www.bccdc.ca/health-professionals/professional-resources/healthy-built-environment-linkages-toolkit

Beaudry, M., & Delisle, H. (2005). Public('s) nutrition. *Public Health Nutrition, 8*(6a), 743-748. https://doi.org/10.1079/PHN2005777

Beaudry, M., Hamelin, A.-M., & Delisle, H. (2004). Public nutrition: An emerging paradigm. *Canadian Journal of Public Health, 95*(5), 375-377. https://dx.doi.org/10.1007%2FBF03405150

Beauman, C., Cannon, G., Elmadfa, I., Glasauer, P., Hoffmann, I., Keller, M., Krawinkel, M., Lang, T., Leitzmann, C., Lotsch, B., Margetts, B., Mcmichael, T., Meyer-Abich, K., Oltersdorf, U., Mantovani, M., Sabaté, J., Shetty, P.S., Soria, M., Spiekermann, U., Zerilli-Marimo, M. (2005). The Giessen Declaration. *Public Health Nutrition*, *8,* 783-786. https://doi.org/10.1079/PHN2005768.

Beck, U., Bonss, W., & Lau, C. (2003). The theory of reflexive modernization. *Theory, Culture and Society, 20*(2), 1-33. https://doi.org/10.1177%2F0263276403020002001

Beingessner, N., & Fletcher, A. J. (2019). "Going local": Farmers' perspectives on local food systems in rural Canada. *Agriculture and Human Values*. https://doi.org/10.1007/s10460-019-09975-6

Belk, R. W., Wallendorf, M., & Sherry Jr, J. F. (1989). The sacred and the profane in consumer behavior: Theodicy on the Odyssey. *Journal of Consumer Research, 16*(1), 1-38. https://doi.org/10.1086/209191

Bell, D. J., & Valentine, G. (1997). *Consuming geographies: We are where we eat*. New York: Routledge.

Bennett, P. (2014). Turning stones into bread: Developing synergistic science/religion approaches to the world food crisis. *Zygon, 49*(4), 949-957. https://doi.org/10.1111/zygo.12136

Berry, W. (1977). The body and the earth. In N. Wirzba (Ed.), *The art of the commonplace* (pp. 93-134). Washinton: Shoemaker and Hoard.

Berry, W. (1992). The pleasures of eating. In D. W. Curtin & L. M. Heldke (Eds.), *Cooking, eating, thinking: Transformative philosophies of food* (pp. 374-379). Bloomington: Indiana University Press.

Berry, W. (1994). Health is membership. In N. Wirzba (Ed.), *The art of the commonplace* (pp. 144-158). Washington: Shoemaker and Hoard.

Bibby, R. W. (2011). *Beyond the gods and back: Religion's demise and rise and why it matters*. Lethbridge, AB: Project Canada Books.

Bibby, R. W. (2012). *A new day: The resilience & restructuring of religion in Canada.* http://www.reginaldbibby.com/images/A_NEW_DAY_Sept_12_2012.pdf

Black, C., Moon, G., & Baird, J. (2014). Dietary inequalities: what is the evidence for the effect of the neighbourhood food environment? *Health & Place, 27*, 229-242. https://doi.org/10.1016/j.healthplace.2013.09.015

Blay-Palmer, A. (2008). *Food fears: From industrial to sustainable food systems*. Burlington, VT: Ashgate.

Blay-Palmer, A., & Koc, M. (2010). Imagining sustainable food systems: The path to regenerative food systems. In A. Blay-Palmer (Ed.), *Imagining sustainable food systems: Theory and practice* (pp. 223-246). Farnham, England: Ashgate.

Born, B., & Purcell, M. (2006). Avoiding the local trap: Scale and food systems in planning research. *Journal of Planning Education and Research, 26*(2), 195-207. https://doi.org/10.1177%2F0739456X06291389

Braverman, H. (1974). *Labor and monopoly capital*. New York: Monthly Review Press.

Bren d'Amour, C., Pandey, B., Reba, M., Ahmad, S., Creutzig, F., & Seto, K. C. (2020). Urbanization, processed foods, and eating out in India. *Global Food Security, 25*, 100361. https://doi.org/10.1016/j.gfs.2020.100361

Byrne, A. (2006). Intentionality. In S. Sarkar & J. Pfeifer (Eds.), *The philosophy of science: An encyclopedia* (Vol. 1 (A–M), pp. 405-410). New York: Routledge.

Cairns, K., Johnston, J., & Baumann, S. (2010). Caring about food: Doing gender in the foodie kitchen. *Gender and Society, 24*(5), 591-615. https://doi.org/10.1177%2F0891243210383419

Clapp, J. (2012). *Food*. Cambridge, UK: Polity.

Clark, W. (2000). Patterns of religious attendance. *Canada Social Trends, Winter 2000*, 23-27. https://www.statcan.gc.ca/sites/default/files/5389-eng.pdf

Clark, W. (2003). Pockets of belief: Religious attendance patterns in Canada. *Canada Social Trends, Spring 2003*, 2-5. https://www.statcan.gc.ca/sites/default/files/6493-eng.pdf

Crisp, B. R. (2008). Social work and spirituality in a secular society. *Journal of Social Work, 8*(4), 363-375. https://doi.org/10.1177%2F1468017308094990

Csikszentmihalyi , M. (1975). *Beyond boredom and anxiety*. San Francisco: Jossey-Bass.

Csikszentmihalyi , M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row.

Czekierda, K., Banik, A., Park, C. L., & Luszczynska, A. (2017). Meaning in life and physical health: systematic review and meta-analysis. *Health Psychology Review, 11*(4), 387-418. http://dx.doi.org/10.1080/17437199.2017.1327325

Dehler, G. E., & Welsh, M. A. (1994). Spirituality and organizational transformation: Implications for the new management paradigm. *Journal of Management Psychology, 9*(6), 17-26. http://dx.doi.org.ezproxy.library.ubc.ca/10.1108/02683949410070179

DeLind, L. (2011). Are local food and the local food movement taking us where we want to go? Or are we hitching our wagons to the wrong stars? *Agriculture and Human Values, 28*(2), 273-283. http://dx.doi.org/10.1007/s10460-010-9263-0

Desjardins, M. (2015). Imagining Jesus, with food. *Scripta Instituti Donneriani Aboensis, 26*(0). https://doi.org/10.30674/scripta.67446

Desjardins, M., & Desjardins, E. (2009). Food that builds community: The Sikh Langar in Canada. *Cuizine, 1*(2), 0-0. https://doi.org/10.7202/037851ar

Desrochers, P., & Shimizu, H. (2012). *The locavore's dilemma: In praise of the 10,000-mile diet*. Philadelphia: Public Affairs.

Dowler, E., Kneafsey, M., Cox, R., & Holloway, L. (2009). 'Doing food differently': Reconnecting biological and social relationships through care for food. *The Sociological Review, 57*, 200-221. http://dx.doi.org/10.1111/j.1467-954X.2010.01893.x

DuPuis, E. M., & Goodman, D. (2005). Should we go "home" to eat?: Toward a reflexive politics of localism. *Journal of Rural Studies, 21*(3), 359-371. https://doi.org/10.1016/j.jrurstud.2005.05.011

Easwaran, E. T. (2007). *The Upanishads*. Tomales, CA: Nilgiri Press.

Eckersley, R. M. (2007). Culture, spirituality, religion and health: Looking at the big picture. *Medical Journal of Australia, 186*(S10), S54-56. https://doi.org/10.5694/j.1326-5377.2007.tb01042.x

Elkins, D. N., Hedstrom, L. J., Hughes, L. L., Leaf, J. A., & Saunders, C. (1988). Toward a humanistic-phenomenological spirituality. *Journal of Humanistic Psychology, 28*(4), 5-18. https://doi.org/10.1177%2F0022167888284002

Epstein, S. (1985). The implications of cognitive-experiential self-theory for research in social psychology and personality. *Journal for the Theory of Social Behaviour, 15*(3), 283-310. http://dx.doi.org/10.1111/j.1468-5914.1985.tb00057.x

Finn, S. M. (2014). Valuing our food: Minimizing waste and optimizing resources. *Zygon®, 49*(4), 992-1008. https://doi.org/10.1111/zygo.12131

Frankl, V. E. ([1959]2006). *Man's search for meaning*. Boston: Beacon Press.

Frieden, T. R. (2010). A framework for public health action: The health impact pyramid. *American Journal of Public Health, 100*(4), 590-595. https://doi.org/10.2105/AJPH.2009.175349

Friedmann, H. (1999). Remaking "traditions": How we eat, what we eat and the changing political economy of food. In D. Barndt (Ed.), *Women working the NAFTA food chain* (pp. 36-60). Toronto: Second Story Press.

Friel, S., Pescud, M., Malbon, E., Lee, A., Carter, R., Greenfield, J., Cobcroft, M., Potter, J. Rychetnik, L., & Meertens, B. (2017). Using systems science to understand the determinants of inequities in healthy eating. *PLOS ONE, 12*(11), e0188872. https://doi.org/10.1371/journal.pone.0188872

Frohlich, M. (2001). Spiritual discipline, discipline of spirituality: Revisiting questions of definition and method. *Spiritus: A Journal of Christian Spirituality, 1*, 65-78. https://doi.org/10.1353/scs.2001.0009

George, L. K., Ellison, C. G., & Larson, D. B. (2002). Explaining the relationships between religious involvement and health. *Psychological Inquiry, 13*(3), 190-200. http://dx.doi.org/10.1207/S15327965PLI1303_04

Gerber, L. (2017). Food connections. *Alternatives Journal, 43*(2), 7.

Ghosh, B. (2011). Cultural changes and challenges in the era of globalization:The case of India. *Journal of Developing Societies, 27*(2), 153-175. https://doi.org/10.1177/0169796x1102700203

Glanz, K., Sallis, J. F., Saelens, B. E., & Frank, L. D. (2005). Healthy nutrition environments: concepts and measures. *American Journal of Health Promotion, 19*(5), 330-333. https://doi.org/10.4278%2F0890-1171-19.5.330

Gliessman, S. (2016). Transforming food systems with agroecology. *Agroecology and Sustainable Food Systems, 40*(3), 187-189. https://doi.org/10.1080/21683565.2015.1130765

Griffith, R. T. H. t. ([1896] 2006). *The hymns of the Rigveda V1* (2nd ed.). Whitefish, MT: Kessinger Publishing.

Guthman, J. (2007a). Can't stomach it: How Michael Pollan et al. made me want to eat Cheetos. *Gastronomica: The Journal of Food and Culture, 7*(3), 75-79. http://dx.doi.org/10.1525/gfc.2007.7.3.75

Guthman, J. (2007b). Commentary on teaching food: Why I am fed up with Michael Pollan et al. *Agriculture and Human Values, 24*(2), 261-264. http://dx.doi.org/10.1007/s10460-006-9053-x

Halkier, B. (2001). Routinisation or reflexivity? Consumers and normative claims for environmental consideration. In J. Gronow & A. Warde (Eds.), *Ordinary consumption* (pp. 25-44). London: Routledge.

Hawkes, C., Harris, J., & Gillespie, S. (2017). Changing diets: Urbanization and the nutrition transition *2017 Global Food Policy Report* (pp. 34-41): International Food Policy Research Institute (IFPRI). https://www.ifpri.org/publication/changing-diets-urbanization-and-nutrition-transition

Heine, S. J., Proulx, T., & Vohs, K. D. (2006). The meaning maintenance model: On the coherence of social motivations. *Personality and Social Psychology Review, 10*(2), 88-110. http://dx.doi.org/10.1207/s15327957pspr1002_1

Heldke, L. M. (2012). Down-home global cooking. In D. M. Kaplan (Ed.), *The philosophy of food* (pp. 33-51). Berkeley: University of California Press.

Hendrickson, M. K., & Heffernan, W. D. (2002). Opening spaces through relocalization: Locating potential resistance in the weaknesses of the global food system. *Sociologia Ruralis, 42*(4), 347-369. http://dx.doi.org/10.1111/1467-9523.00221

Hinrichs, C. (2000). Embeddedness and local food systems: notes on two types of direct agricultural market. *Journal of Rural Studies, 16*(3), 295-303. https://doi.org/10.1016/S0743-0167(99)00063-7

Hinrichs, C. (2003). The practice and politics of food system localization. *Journal of Rural Studies, 19*(1), 33-45. https://doi.org/10.1016/S0743-0167(02)00040-2

Hinrichs, C. (2010). Conceptualizing and creating sustainable food systems: How interdisciplinarity can health. In A. Blay-Palmer (Ed.), *Imagining sustainable food systems: Theory and practice* (pp. 17-35). Farnham, England: Ashgate.

Jaffe, J., & Gertler, M. (2006). Victual vicissitudes: Consumer deskilling and the (gendered) transformation of food systems. [yes]. *Agriculture and Human Values, 23*(2), 143-162. https://doi.org/10.1007/s10460-005-6098-1

James, W. ([1902] 2004). *The varieties of religious experience: A study in human nature*. New York: The Modern Library.

Kass, L. R. (1999). *The hungry soul: Eating and the perfecting of our nature*. Chicago: University of Chicago Press.

Kaufman, A. H., & Mock, J. (2014). Cultivating greater well-being: The benefits Thai organic farmers experience from adopting Buddhist eco-spirituality. *Journal of Agricultural and Environmental Ethics, 27*(6), 871-893. https://doi.org/10.1007/s10806-014-9500-4

Khare, R. S. (Ed.) (1992). *The eternal food: Gastronomic ideas and experiences of Hindus and Buddhists*. Albany: State University of New York Press.

King, L. A., Richards, J. H., & Stemmerich, E. (1998). Daily goals, life goals, and worst fears: Means, ends, and subjective well-being. *Journal of Personality, 66*(5), 713-744. http://dx.doi.org/10.1111/1467-6494.00030

Kloppenburg, J., Hendrickson, J., & Stevenson, G. W. (1996). Coming in to the foodshed. *Agriculture and Human Values, 13*(3), 33-42. http://dx.doi.org/10.1007/BF01538225

Kloppenburg, J., Lezberg, S., De Master, K., Stevenson, G. W., & Hendrickson, J. (2000). Tasting food, tasting sustainability: Defining the attributes of an alternative food system with competent, ordinary people. *Human Organization, 59*(2), 177-186. https://doi.org/10.17730/humo.59.2.8681677127123543

Klostermaier, K. K. (2007). *A survey of Hinduism* (3rd ed.). Albany: State University of New York Press.

Kneafsey, M., Cox, R., Holloway, L., Dowler, E., Venn, L., & Tuomainen, H. (2009). *Reconnecting connsumers, producers and food: Exploring alternatives*. Oxford: Berg.

Kneen, B. (1993). *From land to mouth: Understanding the food system* (2nd ed.). Toronto: New Canada Publications.

Korthals, M. (2004). *Before dinner: Philosophy and ethics of food* (F. Kooymans, Trans.). Norwell, MA: Springer.

Kumar, S. (2002). Reverence for life: A Jain perspective. In D. Cadman & J. Carey (Eds.), *A sacred trust: Ecology and spiritual vision* (pp. 57-67). London: Temenos Academy.

Laborde, D., Martin, W., Swinnen, J., & Vos, R. (2020). COVID-19 risks to global food security. *Science, 369*(6503), 500-502. https://doi.org/10.1126/science.abc4765

Lang, T. (2005). Food control or food democracy?: Re-engaging nutrition to civil society, the state and the food supply chain. *Public Health Nutrition*, 8(6A):730-737. https://doi.org/10.1079/phn2005772

Lang, T. (2009). Reshaping the food system for ecological public health. *Journal of Hunger & Environmental Nutrition, 4*(3), 315-335. https://doi.org/10.1080/19320240903321227

Lang, T., Barling, D., & Caraher, M. (2009). *Food policy: Integrating health, environment and society*. Oxford: Oxford University Press.

Larson, N., & Story, M. (2009). A review of environmental influences on food choices. *Annals of Behavioral Medicine, 38*(S1), 56-73. https://doi.org/10.1007/s12160-009-9120-9

Lindsay, C. (2008). Canadians attend weekly religious services less than 20 years ago. *Matter of fact, June 2008*. https://www150.statcan.gc.ca/n1/pub/89-630-x/2008001/article/10650-eng.htm

Ludwig, D. S., & Nestle, M. (2008). Can the food industry play a constructive role in the obesity epidemic? *Journal of the American Medical Association, 300*(15), 1808-1811. http://doi.org/10.1001/jama.300.15.1808

Lusk, J. L. (2017). Evaluating the policy proposals of the food movement. *Applied Economic Perspectives and Policy, 39*(3), 387-406. https://doi.org/10.1093/aepp/ppx035

MacRae, R. (2011). A joined-up food policy for Canada. *Journal of Hunger & Environmental Nutrition, 6*(4), 424-457. http://dx.doi.org/10.1080/19320248.2011.627297

McCann, G., & Bechsgaard, G. (2018). Dietary demons and the search for "clean" eating - What our food fads say about us. https://www.psychologytoday.com/ca/blog/return-stillness/201805/dietary-demons-and-the-search-clean-eating

McIntyre, L. (2003). Food security: More than a determinant of health. *Policy Options*(March), 46-51.

McKnight, R. (1984). Spirituality in the workplace. In J. D. Adams (Ed.), *Transforming work: A collection of organizational transformation readings* (pp. 139-153). Alexandria, VA: Miles River Press.

McWilliams, J. E. (2009). *Just food: Where locavores get it wrong and how we can truly eat responsibly*. New York: Back Bay Books.

Michopoulou, E., & Jauniškis, P. (2020). Exploring the relationship between food and spirituality: A literature review. *International Journal of Hospitality Management, 87*, 102494. https://doi.org/10.1016/j.ijhm.2020.102494

Mikkonen, J., & Raphael, D. (2010). *Social determinants of health: The Canadian facts*. Toronto: York University School of Health Policy and Management.

Milio, N. (1988). Making healthy public policy; developing the science by learning the art: An ecological framework for policy studies. *Health Promotion International, 2*(3), 263-274. https://doi.org/10.1093/heapro/2.3.263

Milio, N. (1990). Towards healthy public policy in food and nutrition. *Public Health, 104*(1), 45-54. https://doi.org/10.1016/S0033-3506(05)80345-2

Miller, W. R., & Thoresen, C. E. (2003). Spirituality, religion, and health: An emerging research field. *American Psychologist, 58*(1), 24-35. https://doi.org/10.1037/0003-066x.58.1.24

Moore, T. (2002). The interiority of food. In M. Schut (Ed.), *Food and faith: Justice, joy and daily bread* (pp. 63-67). Denver: Living the Good News.

Moreno, M. (1992). Pañcāmirtam: God's washings as food. In R. S. Khare (Ed.), *The eternal food: Gastronomic ideas and experiences of Hindus and Buddhists* (pp. 147-178). Albany: State University of New York Press.

Morgan, A., & Ziglio, E. (2007). Revitalising the evidence base for public health: An assets model. *Promotion and Education, 14*(suppl 2), 17-22. https://doi.org/10.1177%2F10253823070140020701x

Morgan, K. (2010). Local and green, global and fair: The ethical foodscape and the politics of care. *Environment and Planning A, 42*, 1852-1867. https://doi.org/10.1068/a42364

Morrison, E. E., Burke, G. C., III, & Greene, L. (2007). Meaning in motivation: Does your organization need an inner life? *Journal of Health and Human Services Administration, 30*(1), 98-115. https://www.jstor.org/stable/41288075

Nathoo, T., & Ostry, A. (2009). *The one best way? Breastfeeding history, politics, and policy in Canada*. Waterloo, ON: Wilfrid Laurier University Press.

National Collaborating Centre for Healthy Public Policy. (2010). *What we do.* http://www.ncchpp.ca/62/What_We_Do.ccnpps

Nhat Hanh, T. (1991). *Peace is every step*. New York: Bantam.

Nhat Hanh, T., & Cheung, L. (2010). *Savor: Mindful eating, mindful life*. New York: HarperCollins.

O'Donnell, M. P. (1986). Definition of health promotion. *American Journal of Health Promotion, 1*(1), 4-5. https://doi.org/10.4278/0890-1171-1.1.4

O'Donnell, M. P. (2009). Definition of health promotion 2.0: Embracing passion, enhancing motivation, recognizing dynamic balance, and creating opportunities. *American Journal of Health Promotion, 24*(1), iv-iv. http://dx.doi.org/10.4278/ajhp.24.1.iv

O'Kane, G. (2012). What is the real cost of our food? Implications for the environment, society and public health nutrition. *Public Health Nutrition, 15*(02), 268-276. https://doi.org/10.1017/S136898001100142X

Park, C. L. (2005). Religion and meaning. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 295-314). New York: The Guilford Press.

Parsons, K., & Hawkes, C. (2019). *Brief 4: Embedding food in all policies*. https://www.city.ac.uk/about/schools/health-sciences/research/centre-for-food-policy#unit=publications

Petrini, C. (2007). *Slow Food Nation*. New York: Rizzoli Ex Libris.

Raeburn, J., & Rootman, I. (1998). *People-centred health promotion*. West Sussex, England: John Wiley and Sons.

Reker, G. T., & Wong, P. T. P. (1988). Aging as an individual process: Toward a theory of personal meaning. In J. E. Birren & V. L. Bengtson (Eds.), *Emergent theories of aging* (pp. 214-246). New York: Springer.

Rideout, K., Mah, C. L., & Minaker, L. M. (2015). *Food environments: An introduction for public health practice*. http://www.ncceh.ca/documents/evidence-review/food-environments-introduction-public-health-practice

Roepke, A. M., Jayawickreme, E., & Riffle, O. M. (2014). Meaning and health: A systematic review. *Applied Research in Quality of Life, 9*(4), 1055-1079. https://doi.org/10.1007/s11482-013-9288-9

Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing data* (2nd ed.). Thousand Oaks, CA: Sage.

Sage, C. (2003). Social embeddedness and relations of regard: Alternative 'good food' networks in south-west Ireland. *Journal of Rural Studies, 19*(1), 47-60. https://doi.org/10.1016/S0743-0167(02)00044-X

Shetty, P. (2002). Nutrition transition in India. *Public Health Nutrition, 5*(1A), 175-182.

Shiva, V. (2002). Annadaana—Gift of food. In D. Cadman & J. Carey (Eds.), *A sacred trust: Ecology and spiritual vision* (pp. 43-56). London: Temenos Academy.

Siewart, C. (2011). *Consciousness and intentionality*. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy*. http://plato.stanford.edu/archives/fall2011/entries/consciousness-intentionality/

Snyder, G. (2002). Grace. In M. Schut (Ed.), *Food and faith: Justice, joy and daily bread* (pp. 73-75). Denver: Living the Good News.

Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology, 53*(1), 80-93. https://psycnet.apa.org/doi/10.1037/0022-0167.53.1.80

Steger, M. F., Kashdan, T. B., Sullivan, B. A., & Lorentz, D. (2008). Understanding the search for meaning in life: Personality, cognitive style, and the dynamic between seeking and experiencing meaning. *Journal of Personality, 76*(2), 199-228. http://dx.doi.org/10.1111/j.1467-6494.2007.00484.x

Stevenson, G. W., Posner, J., Hall, J., Cunningham, L., & Harrison, J. (1994). Addressing the challenges of sustainable agriculture research and extension at land-grant universities: Radially organized teams at Wisconsin. *American Journal of Alternative Agriclture, 9*(1&2), 76-83. https://doi.org/10.1017/S0889189300005658

Story, M., Kaphingst, K. M., Robinson-O'Brien, R., & Glanz, K. (2008). Creating healthy food and eating environments: Policy and environmental approaches. *Annual Review of Public Health, 29*(1), 253-272. https://doi.org/10.1146/annurev.publhealth.29.020907.090926

Stuart, D., & Worosz, M. (2012). Risk, anti-reflexivity, and ethical neutralization in industrial food processing. *Agriculture and Human Values, 29*(3), 287-301. http://dx.doi.org/10.1007/s10460-011-9337-7

Stuckler, D., & Nestle, M. (2012). Big food, food systems, and global health. *PLoS Med, 9*(6), e1001242. http://dx.doi.org/10.1371%2Fjournal.pmed.1001242

Svenfelt, Å., & Carlsson-Kanyama, A. (2010). Farmers' markets: Linking food consumption and the ecology of food production? *Local Environment, 15*(5), 453-465. http://dx.doi.org/10.1080/13549831003735411

Swinburn, B. A., Kraak, V. I., Allender, S., Atkins, V. J., Baker, P. I., Bogard, J. R., Brinsden, H., Calvillo, A., De Schutter, O., Devarajan, R., Ezzati, M., Friel, S., Goenka, S., Hammond, R. A., Hastings, G., Hawkes, C., Herrero, M., Hovmand, P. S., Howden, M., Jaacks, L. M., … Dietz, W. H. (2019). The Global Syndemic of Obesity, Undernutrition, and Climate Change: The Lancet Commission report. *Lancet (London, England)*, *393*(10173), 791–846. https://doi.org/10.1016/S0140-6736(18)32822-8

Szabo, M. (2011). The challenges of "re-engaging with food": Connecting employment, household patterns and gender relations to convenience food consumption in North America. *Food, Culture and Society: An International Journal of Multidisciplinary Research, 14*(4), 547-566. http://dx.doi.org/10.2752/175174411X13046092851514

Tan, M.-M., Chan, C. K. Y., & Reidpath, D. D. (2013). Religiosity and spirituality and the intake of fruit, vegetable, and fat: A systematic review. *Evidence-Based Complementary and Alternative Medicine, 2013*, 146214. https://doi.org/10.1155/2013/146214

Taylor, P. W. (1978). *Problems of moral philosophy: An introduction to ethics* (3rd ed.). Belmont, CA: Wadsworth Publishing.

Vader, J.-P. (2006). Spiritual health: The next frontier. *European Journal of Public Health, 16*(5), 457. https://doi.org/10.1093/eurpub/ckl234

Vepa, S. S. (2004). Impact of globalization on the food consumption of urban India. In FAO (Ed.), *Globalization of food systems in developing countries: Impact on food security and nutrition; FAO food and nutrition paper 83*. Rome: Food and Agriculture Organization. http://www.fao.org/3/y5736e/y5736e00.htm

Weiler, A. M. (2018). A food policy for Canada, but not just for Canadians: Reaping justice for migrant farm workers. *Canadian Food Studies, 5*(3), 279-284. https://doi.org/10.15353/cfs-rcea.v5i3.312

Wilkins, J. (2005). Eating right here: Moving from consumer to food citizen. *Agriculture and Human Values, 22*(3), 269-273. https://doi.org/10.1007/s10460-005-6042-4

Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., Garnett, T., Tilman, D., DeClerck, F., Wood, A., Jonell, M., Clark, M., Gordon, L. J., Fanzo, J., Hawkes, C., Zurayk, R., Rivera, J. A., De Vries, W., Majele Sibanda, L., Afshin, A., … Murray, C. (2019). Food in the Anthropocene: The EAT-Lancet Commission on healthy diets from sustainable food systems. *Lancet (London, England)*, *393*(10170), 447–492. https://doi.org/10.1016/S0140-6736(18)31788-4

Winson, A. (1993). *The intimate commodity: Food and the development of the agro-industrial complex in Canada*. Aurora, ON: Garamond Press.

Wolpert, S. (1991). *India*. Berkeley: University of California Press.

World Health Organization. (2005). *The Bangkok charter for health promotion in a globalized world*. http://www.who.int/healthpromotion/conferences/6gchp/bangkok_charter/en/

Vol. 8 No. 2, pp. 111-136 August 2021

Canadian Food Studies La Revue canadienne des études sur l'alimentation

Original Research Article

Moving your body, soul, and heart to share and harvest food: Food systems education for youth and Indigenous food sovereignty in Garden Hill First Nation, Manitoba.

Kaylee Michnik[a*], Shirley Thompson[b] and Byron Beardy[c]

[a] University of Saskatchewan
[b] University of Manitoba
[c] Four Arrows Regional Health Authority

Abstract

Colonialism, and its partner, racism, greatly impact Indigenous food systems across Canada elevating the rates of diet-related diseases and food insecurity. Many Indigenous communities have responded to these challenges with their own community-based, culturally appropriate food solutions, including local food production. This participatory research explores the question of traditional food education for First Nations youth through photo-elicitation with five youths employed on a community farm and interviews with twelve Elders, community food educators and Knowledge Keepers. This research provides the building blocks for food education to support a community-based, Indigenous food system and sovereignty, informed by Garden Hill First Nation Elders, Knowledge Keepers, and youth. Interviews and participatory research established that food education for youth and Indigenous food sovereignty should be rooted in traditional and spiritual beliefs, land-based learning, and self-determination. Food-related policies and programs need to provide increased financial support for land-based education for youths while assessing the use of technology on culture and removing gender-related barriers to participation. Community desires for food education closely match the tenets of Indigenous food sovereignty. This research shows the importance of developing Indigenous food education programs that are community-based and applied.

*Corresponding author: kam538@mail.usask.ca
DOI: 10.15353/cfs-rcea.v8i2.446
ISSN: 2292-3071

Keywords: Indigenous food sovereignty; Indigenous education; First Nations youth; land-based education

Introduction

Elder and Knowledge Keeper Dave Courchene Jr. (2018) asks the question, "How can a nation be sovereign if they cannot even feed their children?" This question raises another question regarding food education for youth. What does a nation have to teach youths about food to ensure their children and their children's children are nourished? Food security and Indigenous food systems in First Nation communities need urgent attention. Through the lens of Indigenous food sovereignty, and the stories and photos of Elders, youths, community food educators, and Knowledge Keepers, this paper explores the food education required to revitalize Indigenous food systems in the fly-in First Nation community of Garden Hill First Nation in the Island Lake region of northeast Manitoba in Canada.

Indigenous food systems provide food in a way that both sustains ecological and cultural integrity for Indigenous peoples and lands (Settee & Shukla, 2020; Thompson, Pritty, & Thapa, 2020). Indigenous food systems are considered key to meet the Sustainable Development Goals as they contribute to global food security and eradication of poverty (Food and Agriculture Organization of the United Nations [FAO], 2009). Significantly, the world's food supply originated from Indigenous food systems, including corn, potatoes, squash, and beans (Keoke & Porterfield, 2005; Food Secure Canada, n.d.; Settee & Shukla, 2020). Indigenous food systems have garnered international recognition for their role in sustainability and resilience to climate change (FAO, 2009; Tauli-Corpuz et al., 2018). In contrast, modern agriculture and aquaculture are blamed for causing 78 percent of the global ocean and freshwater eutrophication, 26 percent of greenhouse gases and 85 percent of the species threatened with extinction on the IUCN red list (Ritchie & Rosser, 2020).

Indigenous food systems worldwide need revitalization as indicated by the high food insecurity rates in Indigenous communities (Anderson et al., 2016). In Canada, roughly half (50.8 percent) of households within First Nation reserves experienced food insecurity (First Nations Information Governance Centre, 2018) compared to one in eight Canadian households (12.7 percent) (Tarasuk & Mitchell, 2020). Still, some northern and remote areas have even higher food insecurity rates at 75 percent of all households in northern Manitoba communities and 85 percent in Manitoba's remote First Nation communities (Thompson et al., 2012). These elevated levels of food insecurity are exacerbated by poverty and inappropriate colonial policies, including food, education, and natural resources development, in and around First Nation communities (Thompson, Bonnycastle, & Hill, 2020).

Although Indigenous food sovereignty has been used to describe Indigenous peoples' food cultures and conditions in Canada, the processes, knowledge, and skills to rebuild connection and relationship between youth and traditional foods, thereby moving toward food sovereignty, is understudied (Robin & Cidro, 2020). This paper is unique in exploring what First Nations people in a northern and remote community consider essential for youth to learn about Indigenous food, food systems, and sovereignty. Assessing the views of what is needed for Indigenous food education through an Indigenous food sovereignty lens has the potential to expand the literature in this under-researched area and contribute to community-led education programming to help strengthen Indigenous food sovereignty. After introducing the key terms discussed in the paper, Indigenous food sovereignty, Indigenous food systems, self-determination, and Indigenous education, the community where this research takes place is profiled. Next, the methods are discussed briefly before exploring the findings under the tenets of Indigenous food sovereignty. Lastly, the implications of this research are discussed.

Indigenous food sovereignty

Indigenous food sovereignty is an organizing framework that is used worldwide to "nurture traditional harvesting, hunting and gathering" (Settee & Shukla, 2020, p. 4) in a way that "respect[s] the sovereign rights and powers of each distinct nation" (Morrison, 2011, p. 98). Indigenous nations, like all nations, need to control their food policies, programs, education, and systems to be sovereign: "all nations, including Indigenous nations, have the right to define strategies and policies and develop food systems and practices that reflect their own cultural values around producing, consuming and distributing food" (Coté, 2016, p. 8). Indigenous food sovereignty provides a movement to reclaim Indigenous voices, health, and community development to support self-determination and regenerate land and food systems (Morrison, 2020; Four Arrows Regional Health Authority [FARHA], 2020). Morrison (2011; 2020) distills Indigenous food sovereignty down to four main tenets, namely that: 1) food is sacred; 2) food systems require Indigenous participation; 3) legislation and policy reforms are needed; and 4) Indigenous self-determination is possible with Indigenous food sovereignty.

In its essence, Indigenous food sovereignty aims to uproot colonialism to address the underlying social and environmental injustices experienced by Indigenous peoples in relation to colonial land and water use, social policy, planning, and government structures (Morrison, 2020). Indigenous food sovereignty is critical of the Eurocentric view of food which positions food solely as a physical, inanimate object and the achievement of food security and nutritional health as a function of behaviour and individual responsibility (Dawson, 2020). In this light, Indigenous food sovereignty provides a critical and counter discourse that shows how Eurocentric social power and dominance reproduces social and political inequality and colonialism (Dawson, 2020).

Indigenous food sovereignty is an organizing structure and tool to protect Indigenous food systems in synergy with a community's own social, political, historical, environmental, and cultural context (Settee & Shukla, 2020). Indigenous food sovereignty is based on a cultural foundation of Indigenous knowledge, or expert knowledge of local animal, plant, and fish habitats to live sustainably on ancestral territory through hunting, fishing, trapping, gathering, gardening, and participation in ceremony (Ballard, 2012; Cidro et al., 2015). Indigenous knowledge is embedded in language and the earth, inclusive of land and water (Cajete, 2000). Awareness of place shapes the knowledge, skills, and lifestyles required for sustainable wild food acquisition (Ballard, 2012; Thompson, Thapa & Whiteway, 2019). As the definition of Indigenous food sovereignty is closely tied to community context, vision, and local knowledge, Indigenous food sovereignty is a fluid definition best defined and enacted on by each community (Settee & Shukla, 2020).

This paper will explore community-defined Indigenous food sovereignty. In addition, this paper will address a gap in research by exploring the educational approaches and practices for youth to realize Indigenous food sovereignty in their community (Settee & Shukla, 2020; Morrison, 2020; Levi, 2020). Constructing counternarratives based on Indigenous ways of knowing and learning about food promotes Indigenous food sovereignty by resisting colonial narratives and providing guidance to address Indigenous peoples' health disparities and food insecurity (Dawson, 2020).

Indigenous food systems

Embodying a longstanding relationship to the land, Indigenous food systems are central to "Indigenous people's identity, culture and self-determination, and contribute to their mental, physical, spiritual and emotional health" (Settee & Shukla, 2020, p. 4). Each Indigenous community defines Indigenous food systems slightly different; however, this definition by the Indigenous Food Systems Network (n.d.) is a valuable starting point, explaining Indigenous food systems as:

> Land, air, water, soil and culturally important plant, animal and fungi species that have sustained Indigenous peoples over thousands of years. All parts of Indigenous food systems are inseparable and ideally function in healthy, interdependent relationships [and are] best described in ecological rather than neoclassical economic terms. [Indigenous foods are] cultivated, taken care of, harvested, prepared, preserved, shared, or traded within the boundaries of our respective territories based on values of interdependency, respect, reciprocity, and ecological sensibility.

While much Indigenous food-related knowledge remains, a lot has been lost over time (Truth and Reconciliation Commission of Canada, 2015).

The Residential School and reserve system, and other assimilation policies, have contributed to the decline of traditional land, language, knowledge, and governance, impacting First Nations peoples' ability to participate in and retain Indigenous food systems and thus food sovereignty. Colonial policies confined Indigenous people to tiny reserves, brought plagues for which Indigenous people had no immunity and exterminated keystone species, such as the buffalo and beaver, which impacted food and clothing supply, the abundance of ecosystems, and created starvation and dependency on market-based foods (Daschuk, 2013; Burnett et al., 2016). Today, the availability and cost of procuring traditional foods, and the environmental impacts due to a changing climate, settlement, and resource development, continue to impact the vitality of Indigenous food systems (Haman et al., 2010).

Indigenous food systems are revitalized and maintained through active land-based participation, contributing to community and individual wellbeing and inter-generational knowledge transmission. For example, on Peguis First Nation in central Manitoba, a community garden project helps to "regain and rebuild Peguis First Nation's heritage around the culture of agriculture [and] promote healthy living by working cooperatively, sharing resources, and increasing community economic development" (McCorrister, 2016, para.5). The participation of youth in gardening, wild food harvesting, hunting, trapping, and fishing is further essential to reinvigorate Indigenous food systems (Hoover, 2017; Kamal et al., 2015; Kuhnlein, 2013; Robin, 2019; Trinidad, 2009).

Self-determination

Self-determination focuses on the rights of Indigenous peoples to define and manage their own social, economic, and cultural systems in their traditional territories, including Indigenous knowledge, lands, and resources (Corntassel, 2012). In this management, Indigenous peoples seek sustainability and regeneration of the environment, rather than adopting exploitive and harmful land practices that reduce the abundance of resources provided by Creation (McGregor, 2016). The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) speaks to the entitlement of and protection for Indigenous peoples to define within existing States, their own "cultures", "institutions of governance", "special relationships to the land", "traditional economic activities", and "representation on all decision-making bodies on issues that concern them" (Musafiri, 2012, p.492). The right to self-determination of Indigenous peoples is also upheld in the UN's International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights (Coulter, 2010).

Indigenous education

Indigenous peoples envision education for self-determination despite the state's colonial approach to indoctrinate Indigenous subjugation within the dominant society and education system (Fallon & Paquette, 2012; Olsen Harper & Thompson, 2017). Teaching the understanding of Indigenous peoples' historical and contemporary oppression within society is of primary importance in educating for self-determination (Alfred, 2009; Lee, 2009; Nakata, 2013). Three tenets are key in education and research for Indigenous self-determination, namely: 1) sovereignty; 2) sustainable and culturally appropriate livelihoods; and 3) cultural identity (Hibbard & Adkins, 2013).

In the past, culture had been the vehicle by which sustainable livelihoods, resilience, wellbeing, language, food acquisition, spirituality, and parenting knowledge and styles were endlessly regenerated. HeavyRunner & Morris (1997) noted that where culture is valued, cherished, and taught, youth acquire a natural resilience and a self-respecting view of their cultural identity. Additionally, instruction in local language dialects is a powerful means of reaching educational objectives (Gillies & Battiste, 2013; McCarty & Lee, 2014; Mmari et al., 2010).

Regarding Indigenous food systems, a one-year post-secondary Internship, *Kitigay*, was started by five Indigenous scholars at the University of Manitoba (UM), the Mino Bimaadiziwin partnership, and Brokenhead Ojibway Nation (BON). *Kitigay* is an Anishinaabe word meaning to plant, with the hope that this program will not only grow plants but also ideas of reconciliation, Indigenous food sovereignty, and food businesses. Fourteen Interns registered to start the Kitigay program in September 2021. Activities in the Internship and course offerings include: permaculture design; farming wild rice, vegetables, fruit and potentially grains; harvesting traditionally (hunting, fishing, and medicines); nutrient cycles; traditional food ceremonies; food safety and preparation; nutrition; food sovereignty/food security planning; and food business development/circular economy. Hands-on and experiential learning opportunities will be offered in the BON traditional territory and farm, while courses are offered in collaboration with six different UM faculties. Four of the courses have Indigenous professors and substantive Indigenous content. The permaculture design course currently exists and was successfully run in 2017 jointly with six Island Lake First Nation community members and eighteen graduate students. All Interns in the Kitigay program will earn an International Permaculture Design Certificate, course credits towards a University degree or diploma, and have a paid internship.

Kistiganwacheeng means Garden Hill in Anishinimowin

Garden Hill First Nation is called an Oji-Cree community by settlers and the government. Oji-Cree describes the Island Lake dialect spoken in Manitoba's Island Lake region and the people in this area (Statistics Canada, 2016). However, as this term is considered a derogatory term with *Oji* meaning fly or its offspring, the maggot, this term does not appear in this paper. Instead, for the Island Lake people, which includes community members in Garden Hill First Nation, *Anishiniwuk* is used in line with a recent press release from the Chiefs of the four First Nations in Island Lake: "We are not part Cree or part Ojibwe, we are *Anishiniwuk*, a distinct and sovereign nation with rights that deserve to be respected" (Winnipeg Free Press, 2018, para. 5). Further, this paper applies *Anishinimowin* for their language and *Anishininew* for the communities in Island Lake. Most people (76 percent) in Garden Hill identify *Anishinimowin* as their mother tongue and 63 percent say this is the primary language used at their home and workplace.

Garden Hill is one of four Anishininew First Nations in the Island Lake region within the vast swath of roadless communities on the east side of Lake Winnipeg near the Manitoba-Ontario border. The reserve is home to 2,591 people, residing in 507 houses and spans 85 square kilometers (Statistics Canada, 2016). The community population swelled by 46 percent in eleven years to 2,776 in 2015 from 1,898 in 2006, with a young median age of 20.2 years (Statistics Canada, 2016). A majority of these youth lack job opportunities with only an 18 percent employment rate in the community (Barkman, Monias & Thompson, 2018). With 43 percent of Garden Hill houses having more than one person per room, compared to 1.9 percent for Canada, most houses are overcrowded. Further, 54 percent of houses are considered unsuitable, compared to 4.9 percent for Canada (Statistics Canada, 2016). Instead of piped water,27 percent of households in Garden Hill use cisterns and 21 percent use barrels for water access, posing increased health risks (Barkman, Monias & Thompson, 2018). The median income in Garden Hill is $10,693, less than one-third of the average Canadian's income of $34,204 (Statistics Canada, 2016).

Garden Hill and Island Lake are roadless and only accessible by winter road, plane, or canoe. The largest urban Centre in Manitoba, Winnipeg, is approximately 1500 km (930 miles) from Garden Hill, taking seventeen to twenty hours to drive by ice road, or by plane, approximately 600 km (380 miles), taking 1.5 hours and $380 one-way. Plane travel is further complicated and expensive as Garden Hill lacks an airport. A boat is required to travel over open water, or a helicopter during ice freeze up and break up, from the airport in a neighboring community to Garden Hill. A road connection from an urban Centre to Garden Hill is not expected to start construction until 2050.

Subsistence harvesting provides a mixed economy in Garden Hill, augmented with money from government social programs. As well as having a culture of fishing, hunting, and trapping, a history of gardening is evident from the Anishinimowin name for this community, *Kistiganwacheeng*, which translates to "Garden Hill."

The land of Garden Hill has discontinuous permafrost, poor soils, and a short growing season with temperatures dipping to below -40 degrees Celsius in winter. Nevertheless, berries as well as some root and other vegetables grow here. Garden Hill is in an intact boreal forest in the Hayes watershed, which is the only free-flowing watershed in Manitoba, without dams or floodways fluctuating the water levels. Anishiniwuk continues to harvest actively and steward their traditional territory.According to map biographies with thirty-four harvesters, their traditional territory was much larger than the trapline area. Garden Hill people travel to bush camps at Beaver Hill Lake, Sakkink Lake, Goose Lake, Kookus Lake, York Lake, Coccos Lake, and many other areas to harvest moose, caribou, muskrat, beaver, rabbit, bear, duck, geese, grouse, swan, bird eggs, and fish, as well as plants, including medicines (Thompson, Pritty & Thapa, 2020).

Poor health and food insecurity are recent phenomena. Before 1970, Garden Hill was relatively food secure, relying on healthy, local foods (Thompson, Thapa & Whiteway, 2019). Changes in lifestyle and diet have had substantial consequences on the health of children and adults in Garden Hill and the other Island Lake communities. For example, children as young as eight in Island Lake have been diagnosed with type 2 diabetes (Young et al., 2000). Healthy and fresh market foods are largely inaccessible in Garden Hill due to food cost, lack of variety, poor quality, and poverty (Thompson, Pritty & Thapa, 2020). The selection of healthy foods is very limited in Garden Hill's commercial outlets, and the healthy food that is available is often too costly for most families to afford. Until 2018, the only full-scale grocery store in the area was located on an island across from Garden Hill, requiring a boat trip to get to the store. This boat trip added an extra expense to the already high food costs, until the store finally moved to the mainland (Thompson et al., 2012). In 2009, Thompson et al. (2012) documented household food insecurity rates at 88 percent in Garden Hill. Follow up research in 2015 has suggested that food insecurity rates continue to increase, particularly among those reporting mild or moderate food insecurity (Das, 2017).

Recently, gardening was reestablished in Garden Hill, including developing a 15-acre community farm in 2014 called Meechim Farm Inc. (Das, 2017). In Anishinimowin, "*Meechim*" means food. Meechim Farm seasonally employs youth workers to grow potatoes, apples, tomatoes, beans, cabbages, and other vegetables and fruits and raise layer and broiler chickens. Meechim Farm Inc. was developed as a social enterprise to increase youth employment skills and improve community food security. Two of the authors of this paper played a significant role in its first year and worked with youth and Elders during its formation. Youth are trained in seeding, growing, and harvesting of crops, greenhouse techniques, farm equipment use and maintenance, animal husbandry, marketing and more.

Methods

Community-based participatory action research

This study worked closely with community members from Garden Hill and Island Lake to ensure research outcomes were culturally relevant and meaningful. A discussion of the preliminary research design occurred at an annual meeting of the Island Lake Tribal Council in December 2016. Written consent to work in the community was obtained from the Garden Hill Band Manager and the Executive Director of Kistiganwacheeng Employment and Training Centre. The Centre employs youth to work on Meechim Farm Inc. The University of Manitoba Human Research Ethics Board approved an ethical protocol, which required informed written consent for interviews and photovoice research with seventeen participants. This research followed the Ownership, Control, Access and Possession (OCAP) protocol in research with Indigenous communities by consulting with the community before and throughout the research, including developing research questions and providing the research back to the community in desirable formats.

Between June 2017 and March 2018, seventeen Garden Hill community members participated in either an interview, photo-elicitation, or both (Michnik, 2018). Twelve of the participants were Elders, Knowledge Keepers and community members with experience organizing and mentoring food projects and youth in the community. These community members included Aboriginal Diabetes Initiative workers, Meechim Farm Inc. staff, Kistiganwacheeng Employment and Training Centre staff, and Youth Coordinators. Five youths working at Meechim Farm participated in a photovoice project. Four of these youth also had additional interviews. Content analysis was undertaken with data management software, NVivo version 9.2, informed by the Indigenous Food Sovereignty framework of Morrison (2011). Verification of the themes occurred with key research participants (Michnik, 2018). Each of the authors also had extended stays and many visits to the community to validate research findings, with one of the authors having been born and raised in the region. One of the authors participated in a two-week long healing journey canoe trip with two Elders starting in Garden Hill to reach a traditional camp, Wapi-See, near Red Sucker Lake First Nation. This research produced educational farm signs in Anishinimowin using the research photos taken by youth. In addition, presentations at Indigenous-led conferences alongside community members and a story map embedded with videos and photos were ways the knowledge was used in the community (Keno et al., 2018; Michnik, 2018).

Findings and discussion

Four key themes related to the Indigenous Food Sovereignty framework (Morrison, 2011) were identified in the interviews: rekindling the fire; moving your body, soul, and heart; self-determination; and land-based education barriers. These themes emerged through interviews, the photo elicitation research and the community story map project.

Table 1: Relating Research Themes to Indigenous Food Sovereignty Framework

Indigenous Food Sovereignty (Morrison, 2011)	**Themes from Garden Hill Interviews**
Sacredness of food	Rekindling the fire
Participation in the food system	Moving your body, soul, and heart
Self-determination	Self-determination
Policy and legislation reform	Land-based education barriers

As discussed below, these four key themes provide a starting place for developing food education programming that supports both Indigenous food systems and Indigenous food sovereignty.

The sacredness of food: Rekindling the fire

As a gift from the Creator, land foods are considered sacred. These sentiments came from the interviews, as well as the welcoming sign that greets you in Garden Hill, stating: “All of our rights originate from our connection to the land. Our lives, our beliefs, and our presence as First Nations people are validated to the land, inhabited by our ancestors since time immemorial. Our land is sacred. It is the living body of our sanctity. The teachings and our customs are implicit and practiced through the integrity that protects and warrants our survival.”

The sacredness of land food to the culture and spirituality in Garden Hill was made clear by an Elder explaining that eating from the land is finding your place in Creation: “We had wild meats and everything from the land. What the Creator gave us to survive from. That’s how our great grandfathers survived. From the land, there was no store or anything...We have to use what was given to us to live on the land. What was created on the land.”

To be part of creation and live in harmony with the natural law and their own human nature, youth are encouraged to seek knowledge from the Creator. In teaching Indigenous food ways, a focus on spiritual and traditional beliefs is considered essential, according to Byron Beardy, Program Manager Kimeechiminan, Four Arrows Regional Health Authority (FARHA). This traditional aspect is required for youth to learn how to live and relate in the world from an Anishiniwuk perspective and to learn respect for all creation: “We [community members] are doing this [producing food] to sustain ourselves, but we can’t forget who’s doing that for us. We have to remember the Creator, our Mother Earth... That is the traditional piece that I am talking about that is food sovereignty.

Your identity of who you are and where you came from, what practices were done in relation to respect Mother Earth, to respect creation, to respect land, water, everything."

Although most First Nation communities in Canada were affected by Canada's 1867 cultural genocide policy to "take the Indian out of the child," the remoteness of Island Lake delayed the imposition of Residential Schools. Most children born before 1940 in Island Lake never attended Residential Schools. They were raised on the land learning Indigenous knowledge systems (Thompson, Thapa & Whiteway, 2020). One community member learned from his parents how to be a medicine person and his traditional ways: "My dad didn't let me go to Residential School, I was sad, because I didn't go...Now I'm very happy. He taught me all this traditional stuff, hunting, fishing. I feel I am one of the lucky ones because I didn't go."

Many participants interviewed expressed concern that community members in Garden Hill no longer share traditional knowledge and beliefs. Oral transmission was disrupted in the 1950s and 1960s, when children in Garden Hill were taken away at a young age to residential schools, away from their kin, culture, and land, unable to learn their history. Missionaries and Residential School resulted in the community being strongly influenced by Christian teachings. Many community members continue to reject traditional knowledge. According to an Elder: "[Youth] today, I don't know if they know anything [about traditional knowledge]. I think they are influenced by western culture. Their parents are teaching them what they learned from school, and that's why we are losing our culture. The western community has so much influenced our generation that we tend to teach our kids that way instead of the traditional way." Elders and Knowledge Keepers believe the foundation of food education should be their traditional knowledge and spiritual beliefs to reclaim the sacredness of food. For many Indigenous peoples, the process of growing and nurturing their own food is "connected to a larger understanding of the relationship between the environment, spirituality and people" (Cidro et al., 2015, p. 34). Still, integrating this core belief is challenging in the face of the dominant colonial culture. Alfred (2005) explains that 500 years of "socioeconomic and psychospiritual domination" of Indigenous life by white settlers have created a "colonial culture of fear" (p. 120). This fear continues to suppress Indigenous values and worldviews and divides Indigenous communities regarding what kind of life to live and what to teach younger generations. Further, when traditional knowledge is recognized within a colonial system, it is often broken down into disparate components and its spiritual foundations are largely ignored (Nadasdy, 2003; Smith, 1999).

Participation: Moving your body, soul, and heart to harvest and share food

Rekindling the fire to restore the sacredness of food requires active participation in land-based activities. Participating in traditional food activities on the land is necessary for youth to be well-rounded, capable human beings. Many community members want food education to revolve around land-based activities.

Waziyatawin (2012) explains that to heal the disconnect from the land brought on by colonial forces, Indigenous people must spend time on the land reconnecting to its sacredness. In this way, a feedback loop occurs where "the more [Indigenous peoples] learn to restore local food practices, the more likely we are to defend those practices, and the stronger our cultural ties to our homeland become" (Waziyatawin, 2012, p. 74). The very act of spending time in nature caring for, and learning from, plants and animals has the ability to create pro-environmental feelings, generosity, and care for Mother Earth, while preparing the next generation of food leaders by connecting them with their culture (Fulford & Thompson, 2013; Hoover, 2017; Krasny & Tidball, 2009).

Learning from the land provides cultural meaning to youth and counters the dominant society's negative influences. A feeling of mastery and pride is developed from harvesting and sharing land food that enriches Indigenous youth; according to an Elder, "When you go out there and you provide food for yourself, and you prepare it, you have that pride. I actually did this! My own self. I took this food from the land, and I took care of it. And it sustained me, and I shared it with other people." Another community member described the depth of meaning in harvesting from the land that engages people viscerally- mind, spirit and body: "You have to move your body, your soul, your heart. So that when you take something from the land and give it to the Elder, it has meaning."

Learning on the land is part of culture, identity, and language formation of the Anishininewin. According to one Elder, Anishininiwuk are "bush people", and on this land is where identity is formed in relation to culture: "We are bush people. We eat food from the bush. We have to be out there to learn, to actually learn what it is to be a bush person. You can't really learn anything unless you actually live it. It's like when you learn what something is called, how can you know it unless you actually see it. That's how we learn things, by living it."

A community member further explains that skills learned from the land are important for the survival of Anishininew culture and physical survival. Wilderness safety skills and knowledge are important to the mixed subsistence economy where community members rely on hunting, fishing, trapping, and gathering in remote areas to supplement their food purchases from the store: "Now, survival skills [hunting, fishing, and gardening] are different [than tradition]. They are part of tradition, but they are a form of survival. This is how they/we survived. We hunted, we gathered."

Learning from the land is also important for the transmission and survival of language. As an Elder explains: "It is important [for youth to spend time on the land] because young people are losing their culture and their language. If they don't go out for traditional food, they will lose their language." Land and language are inextricably intertwined. According to Simpson (2004), Indigenous knowledge is contained within the language for land-based activities. She argues that Indigenous languages must be transmitted in the context in which they were created–on the land–to maintain their rigor and worldview.

Learning traditional language is fundamental in understanding culture, living a good life, and guiding food choices. Byron Beardy with Four Arrows Regional Health Authority explains how words in Anishinimowin, or the lack thereof, steer young people toward a healthy relationship with food and land:

> With the introduction of the English language, you can tell what is sovereign and what is not in relation to food. For example...the five W's [for the white color] that were introduced to our people. That's what is killing us, the sugar, the salt, lard, milk and what's the fifth one, wheat. Flour. That's what was introduced to our people and that is what is killing us, the diabetes, the heart disease, you name it. We never had that. And do you know those five words don't have words in our language...Bannock is not in our language, it doesn't have its own meaning as you would berries, strawberries. The strawberry has its own word, Otehimin, which is the heart berry. It's in the language itself.

Participating in growing food at the community farm and in backyard gardens also revitalizes culture and food systems through sharing and reinforcing traditional teachings. In consultation with Elders, community members brought back the traditional knowledge of growing food with local inputs, for example, using fish fertilizer to enrich the soil (Okorosobo, 2017). A community member shares: "We are starting to learn [how to garden], bring back those old techniques that we lost, that we are now using. How to fertilize our ground without the chemicals that we normally depend on when we started the gardening. Now we are strictly doing it with fish as a fertilizer...We did consult with Elders and most of those people that gardened have died off, but some of the teachings...are passed on for teaching to the community."

Through working at Meechim Farm Inc. youth learn gardening skills like planting, hoeing, watering, managing soil fertility, and using tractors and marketing their produce. They are also connecting to the teachings of their grandparents, with one young worker expressing pride in how farming came naturally to him, after learning gardening from his grandfather: "He [the farm supervisor] would ask me, 'how did you learn to do this so fast?' My grandfather taught me how to plant; he planted potatoes, onions and carrots. There is a history of gardening in my family, and I am able to be a fast learner."

An Elder shared that to revive traditions, "it's only natural that you would seek advice, that's where the mentorship comes in." The importance of seeking out Elders with traditional teachings is paramount to Indigenous food sovereignty (Tobias & Richmond, 2014; Wilson, 2003). Teaching, through hands-on activities, like harvesting, planting, cooking, and sharing, is important for youth to gain intimate knowledge of food. Both wildlife and gardening education is needed, according to one Elder who stated: "You can grow your food and your vegetables and all that. But you also have to go out there [on the land] and get your meat to balance your diet."

In the 1970s and 1980s, Elders, from Garden Hill and other Island Lake communities, provided *Nopimink*, which translates from Anishinimowin to "on-the-land education".

Knowledgeable Elders provided many opportunities for families and youth to observe and engage in fishing, hunting, gathering medicines and building shelters to learn about their culture at Island Lake's regional Allen Wood School at Stevenson River and on their traplines. Nopimink is based on the central concept that traditional learning with Elders should be the foundation of academic learning. The importance of learning from Elders and the land is expressed in the Island Lake First Nation's Education Mission's statement:

> Education is the preparation and adaption for meaningful life in a changing world. In Island Lake, education must be rooted in the traditions and culture of the Native people. This means it must teach respect and encompass our language and history, our land and all our resources, including Elders and nature. It must be holistic and realistic in that it relates not only to academic development but to our spiritual, emotional, psychological, and physical growth (Thompson, Whiteway & Harper., 2020, p 22).

By connecting with Elders and participating on the land, youth gain the skills they need to survive and become well-rounded, capable people knowledgeable of their culture, history, land, and language. A community member summarizes the need for hands-on, land-based training to rekindle the fire in youth: "[Youth] have memories [of being on the land] but they don't necessarily know how to get that hands-on training. And if we provide that type of training at Meechim Farm or in the school, I think that would rekindle that fire that burns. That is not out, but still there smoldering."

Self-determination

A significant step towards self-determination was defining Indigenous food sovereignty for the Island Lake region. Through consultation with Elders, community-based food programming experiences, and participation in ceremony, FARHA developed guiding principles of Indigenous Food Sovereignty. These pillars of Indigenous food sovereignty include: 1) Spirit & Celebration; 2) Language; 3) Women; 4) Youth; 5) Elders; and 6) Land. These principles acknowledge the sacredness of food, and the key role of women, Elders, and youth in contributing to Indigenous food sovereignty. Protecting the land and language, for future generations, is considered essential for food sovereignty. Following these teachings helps guide communities on a path toward Indigenous food sovereignty (FARHA, 2016).

According to one community member, self-determination is also evident in the community vision to "get back to producing and harvesting their own food", thereby increasing community control to provide healthy and culturally appropriate foods and livelihoods. Hunting, fishing, and gathering, as well as community gardening and poultry production, help to feed the community.

One young worker explains how Meechim Farm Inc. supplies a variety of fresh fruits and vegetables to Garden Hill: “[Fruit and vegetables] are crazy expensive. This [Meechim Farm] could help with the gardening, [providing vegetables and] fruits, for this community.” Meechim Farm Inc., as well as a number of community members at their home, are engaged in poultry production, which has become an important source of local meat, as well as an employer of youth (Das, 2017; Klatt & Thompson, 2017). Similarly, fishing is both a source of sustenance for most families and the largest employer, bringing $250,000 of cash annually into the community. The fishing income pays for community members to fly out in the fall to their trapline to get moose and fish for the family (Thompson, Thapa & Whiteway, 2019; Thompson et al., 2014).

Gardening and harvesting could also support a traditional economy of trading and sharing to better meet community needs. According to one community food educator: “We could raise food, we could barter, we could exchange within the communities. We don’t have to rely so much on the money from social assistance that we get...The sovereignty part is about the First Nations being able to have their own foods, to meet their own needs." A youth farm worker also stresses the importance of sharing food with community members to inspire others to grow food: “We always give them [tomatoes] away when they are ready. I always give them away, like to people, everything that we plant. So that way they can want to plant too.” Instead of selling food, trading and sharing food have cultural and social benefits rooted in the teaching of reciprocity (Cidro et al., 2015). Many Indigenous communities worldwide have turned to social models of community economic development, such as social enterprises, cooperatives, and development corporations, to ensure cultural and social values are placed equally to economic goals (Hernandez, 2013). For example, Meechim Farm Inc. is a social enterprise that has both social and financial goals.

Interviewees further suggested that community gardening and farming could be scaled up to a point where Garden Hill would be self-reliant. In their view, the Anishiniwuk should be able to eat without depending on the outsider-imposed market-based system, as money typically leaves the community through the corporate store. Through participating in a 100-hour international permaculture design workshop, three community members developed a plan and vision for scaling up food production in Garden Hill. The community members worked with two landscape architectural students to develop a plan to grow Meechim Farm Inc. over twenty years. This plan aims to achieve food production to meet community needs through education and social enterprise (Sivagurunathan & Lins, 2017). Education for Indigenous food sovereignty requires building the skills and traditional knowledge to harvest food from the land and garden, but also planning, business and social enterprise skills to feed the community.

Policy and program change to overcome barriers and build Indigenous food sovereignty

Policies and programs need to ensure that all youth and families can access their traditional territory's land and learn about stewarding their territory for traditional harvesting. All knowledge holders in this study agree that spending time on the land is important to help young people learn about traditional foods. However, youth training and educational opportunities on the land requires enhanced funding and policy support. One community member who works in youth programming describes with frustration how cost is a barrier to taking younger generations out on the land:

> Especially the kids in high school and elementary [school] a lot of them don't have that luxury to get out to the trap line with family. For one thing, it's really expensive to fly out. Especially if you have a large family. You have to make multiple trips on the float plane, and they charge an arm and a leg. $1400 my uncle had to pay, for four people, for one load. And that's just one way. And [community members] have to wait for their next income at the end of the month to come back. And that's expensive and people can't afford it. Especially if you want to take your grandchildren out on the land, show them where you grew up on the traditional hunting grounds. It's so hard.

This learning and healing from the land is needed and desired but unaffordable for most people in Garden Hill. A community Elder elaborates on how cost prevents people from hunting and fishing, although they still want to: "People are still interested in trapping, but because they have no money, they don't bother…Young people are interested in going too, but they have no one to take them because people can't afford to go. It all boils down to cost. The foods are still there. They are just too expensive."

A report by Puzyreva (2018) concluded "due to the strained financial conditions of people in Garden Hill First Nation who predominantly live on welfare, it is extremely hard to balance expenses for basic needs" (p. 12). Travelling to traplines for cultural reasons and food procurement is impossible for many families, organizations and schools. Further, Indigenous peoples' local subsistence activities often unfairly compete with subsidized market foods. According to Settee & Shukla (2020), the federal government's Nutrition North Canada program to reduce the high cost of food and support nutrition in isolated communities does not "adequately recognize the role of Indigenous food systems or country foods in reducing food insecurity" (p.5). As well, government policies and regulations for selling and serving wild meat create barriers for, and at times prevent, traditional food consumption (Ermine et al., 2020; Thompson et al., 2012).

Anti-colonial Indigenous programs, such as the two-week land-education program in Garden Hill, called the Healing Journey, teach survival skills and culture in a traditional way and are instrumental for food education for youth. This Healing Journey is hosted by two Elders but has no funding for youth to access the required canoes, food supplies, tents, or fishing materials. Nor is there any funding for the Elders to provide teachings or to subsidize their expenses.

Nevertheless, these two Elders generously spend their vacation time to lead youth on this journey each year. This trip provides an opportunity to teach youth how to survive on the land, but like other community-based programs, it needs funding support. Food-related policies and programs must support and remove barriers for Elders, families and youth to go out on the land, share knowledge, and consume traditional foods.

Many community members further expressed frustration with technology, like cell phones, distracting young people, and even adults, from getting out on the land. One community member explained that youth would rather virtually fish on their phones than experience fishing firsthand. However, appropriate technology, alongside land-based learning, has great potential for young peoples' traditional food education. A virtual story map of the Healing Journey with video, stories, photos, and maps depicts the learning for youth to experience, second-hand, their place-based history and culture through technology (Michnik, 2018). This story map responds to a community member stating that technology can be used effectively to educate youth about culture: "The thing with a lot of our youth today is that social media, that's how they get their teaching. We should go that route." Technology can be used to document Indigenous language, oral history, and traditional lands, promote cultural identity, and further the education of young Indigenous people, but it must be used in balance (Galla, 2016; Iseke & Moore, 2011; Kral, 2010). Globally, technological impacts include declining health and happiness of young people, with no slowing down in sight (Mainella et al., 2011; UNICEF, 2017). Resources and further research are required to understand and develop technologies appropriate for Indigenous food education programming.

The lack of opportunities for young women's participation in local food programming compared to young men's was an area of concern for community members. Systematic, colonial barriers exclude young women in traditional food practices in the community according to a community member: "There are some young men that know [traditional food skills] because they like to be out there…It's a man's world. The young women stay in the community."

Another community member stated that community hunting camps and farming predominately target male participants, with females seldom included, except in fishing programs: "[The Family Enhancement program] takes the young people out moose hunting where they are taught safety with a gun. At the same time, they are taught to recognize the signs, like I said scouting, scouting a moose or whatever...the girls [should be included], it's not just men or boys…All young people are involved with the fish, but not with the big game. [All young people] make the fish, then fry it then feed their kids. Then, I don't know about farming. I think it's mainly the boys that are doing that."

In follow up verification of the research analysis with key participants, they also echoed concerns that more could be done to engage young women in food programming in the community.

According to scholars Settee (2016) and Simpson (2017), many land-based Indigenous societies were both non-patriarchal and non-hierarchical. Colonization and racism have led to the confinement of "Indigenous women to heteropatriarchal marriage and the home," contributing to both subjugation of Indigenous women and cultural genocide (Simpson, 2017, p. 111). Removing invisible barriers for women and girls to participate in land-based programs is essential to achieving Indigenous food sovereignty and food security of the larger community (FARHA, 2016; Lemke & Delormier, 2017).

Conclusion

Research with youth, Elders and Knowledge Keepers identified the key educational building blocks for Indigenous food sovereignty in Garden Hill First Nation. Any food education developed in Garden Hill must be rooted in traditional and spiritual beliefs, land-based learning, and self-determination. Food-related policies and programs need to address gender equity, technology and cost to ensure equal access to food education for youth. These findings closely relate to the tenets of Indigenous food sovereignty, but are based on the lived realities, aspirations, and local environment of Garden Hill community. This specific direction from Elders, Knowledge Keepers, and youths' voices will provide a valuable guide to develop Indigenous food training courses for youth in Garden Hill First Nation.

The principles of Indigenous food sovereignty are summarized nicely by the community member who stated: "You have to move your body, your soul, your heart. So that when you take something from the land and give it to the Elder, it has a meaning." This statement that youth need to "move your body, your soul and your heart" really speaks to the four components of Indigenous food sovereignty that go beyond the typical focus in western academics on young peoples' intellectual minds. The heart represents self-determination, the spirit considers the sacredness of food, and the body is engaged in participation. This quote is completed by bringing in with land and Elders, stating "when you take something from the land and give it to the Elder, it has meaning." To be holistic, food-related policies have to shift to incorporate land-based education with Elders and Knowledge Keepers. This research shows how involving youth, Elders and Knowledge Keepers in devising their education system for Indigenous Food Sovereignty provides a road map, or curriculum, distinctive to the culture and place.

Indigenous food sovereignty calls for examining what youth need to know to realize self-determination and food security at a community level. The culture and place-based infused principles of Indigenous food sovereignty for education arrived at by Garden Hill Elders, Knowledge Keepers and youths in this research were distinct, yet similar, to the universal definition and principles of Indigenous food sovereignty developed by Morrison (2011). Morrison (2011) explains that local principles ground the system in the local realities, stating: "the underlying principles of Indigenous food sovereignty are based on our responsibilities to uphold our distinct cultures and relationships to the land and food systems" (p. 97).

This research provides the principles of a food education plan representing the distinct aspects and aspirations of Garden Hill First Nation. However, this research process is also applicable to other First Nation communities on their path to Indigenous food sovereignty embodying local culture and place.

Acknowledgements: No conflict of interest to declare.

The authors acknowledge the funding of this research by the SSHRC Mino Bimaadiziwin partnership grant and the generous contribution of insights by Elders, Knowledge Keepers and community members from Garden Hill First Nation.

The authors acknowledge the submission of this paper to a special edition of CAFS hosted by FLEdGE's six "Good Food Principles." This paper aligns with these "Good Food Principles" in supporting community-based research for Indigenous food sovereignty.

References

Alfred, G.T. (2005). *Wasase: Indigenous pathways of action and freedom.* Broadview Press.

Alfred, G.T. (2009). Colonialism and state dependency. *Journal of Aboriginal Health,* 5(2), 42-60. https://doi.org/10.3138/ijih.v5i2.28982

Anderson, I., Robson, B., Connolly, M., Al-Yaman, F., Bjertness, E., King, A., … Yap, L. (2016). Indigenous and tribal peoples' health (The Lancet–Lowitja Institute Global Collaboration): A population study. *The Lancet*, *388*(10040), 131–15. https://doi.org/10.1016/S0140-6736(16)00345-7

Ballard, M. (2012). *Flooding sustainable livelihoods of the Lake St Martin First Nation: The need to enhance the role of gender and language in Anishinaabe knowledge systems.* (Unpublished doctoral dissertation). University of Manitoba.

Barkman, L., Monias, E., & Thompson, S. (2018, May 17-18). *Household water and sewage survey and program in Garden Hill First Nation.* [Presentation] 5th annual H2O First Nation Water Research Conference, Winnipeg, MB. http://create-h2o.ca/pages/annual_conference/annual_conference_2018.php

Burnett, K., Hay, T., & Chambers, L. (2016). Settler colonialism, Indigenous Peoples and food: Federal Indian policies and nutrition programs in the Canadian north since 1945. *Journal of Colonialism and Colonial History*, *17*(2). https://doi.org/10.1353/cch.2016.0030

Cajete, G. (2000). *Native science: Natural laws of interdependence*. Clear Light Publishers.

Cidro, J., Adekunle, B., Peters, E., & Martens, T. (2015). Beyond food security: Understanding access to cultural food for urban Indigenous people in Winnipeg as Indigenous food sovereignty. *Canadian Journal of Urban Research*, *24*(1), 24–43.

Corntassel, J. (2012). Re-envisioning resurgence: Indigenous pathways to decolonization and sustainable self-determination. *Decolonization: Indigeneity, Education & Society*, *1*(1), 86-101.

Coté, C. (2016). "Indigenizing" food sovereignty: Revitalizing Indigenous food practices and ecological knowledges in Canada and the United States. *Humanities*, *5*(3), 57. https://doi.org/10.3390/h5030057

Coulter, R. (2010). The law of self-determination and the United Nations declaration on the rights of Indigenous Peoples. *UCLA Journal of International Law & Foreign Affairs, 15*(1), 1-27. https://www.iucn.org/content/law-self-determination-and-united-nations-declaration-rights-indigenous-peoples

Courchene, D. Jr. (2018). *Connecting food and language*. [Keynote Address]. Indigenous Food Sovereignty Summit 2018, June 19-21, Winnipeg, MB, Canada.

Das, M. (2017). *Rebuilding food security in Garden Hill First Nation community: Local food production in a northern remote community.* (Master's thesis, University of Manitoba, Winnipeg, Manitoba). https://mspace.lib.umanitoba.ca/xmlui/handle/1993/32100

Daschuk, J. (2013). *Clearing the plains: Disease, politics of starvation, and the loss of Aboriginal life.* University of Regina Press.

Dawson, L. (2020). "Food will be what brings the people together": Constructing counter-narratives from the perspective of Indigenous foodways. In P. Settee and S. Shailesh (Eds.), *Indigenous food systems: Concepts, cases and conversations* (pp. 83-100). Canadian Scholars.

Ermine, R., Engler Stringer, R., Farnese, P., & Abbott, G. (2020). *Towards improving traditional food access for urban Indigenous People*. Saskatchewan Population Health and Evaluation Research Unit (SPHERU). https://spheru.ca/publications/publications-and-reports-by-theme.php

Fallon, G., & Paquette, J. (2012). A critical analysis of self-governance agreements addressing First-Nations control of education in Canada. *Canadian Journal of Educational Administration and Policy*, 132, 1-28.

First Nations Information Governance Centre (2018). *National report of the First Nations regional health survey* (Phase 3: Volume Two). https://fnigc.ca/rhs3report

Food and Agriculture Organization of the United Nations (FAO) (2009). *Indigenous Peoples'* *food systems: The many dimensions of culture, diversity and environment for nutrition and health*. Food and Agriculture Organizatoin of the United Nations. http://www.fao.org/documents/card/en/c/250ee74b-9c3f-5dc1-8086-6e0b78b22795/.

Food Secure Canada (n.d.). *Discussion paper 1: Indigenous food sovereignty*. www.foodsecurecanada.org

Four Arrows Regional Health Authority (2016, Sept 25). *IFS Video Sept 25 2016.* [video]. YouTube. https://youtu.be/vyfWg3yOTVc

Four Arrows Regional Health Authority (2020). *Kimeechiminan (our food) - Food security.* https://fourarrowsrha.org/food-security

Fulford, S., & Thompson, S. (2013). Youth community gardening programming as community development: The youth for ecoaction program in Winnipeg, Canada. *Association for Nonprofit and Social Economy Research*, *4*(2), 56–75. https://doi.org/10.22230/cjnser.2013v4n2a145

Galla, C.K. (2016). Indigenous language revitalization, promotion, and education: function of digital technology. *Computer Assisted Language Learning*, *29*(7), 1137–1151. https://doi.org/10.1080/09588221.2016.1166137

Gillies, C. & Battiste, M. (2013). First Nations, Métis and Inuit K-12 language programming: What works? In K. Arnett & C. Mady (Eds.), *Minority populations in Canadian second language education* (pp. 169-183). Multilingual Matters.

Haman, F., Fontaine-Bisson, B., Batal, M., Imbeault, P., Batal, M., & Robidoux, M.A. (2010). Obesity and type 2 diabetes in northern Canada's remote First Nations communities: The dietary dilemma. *International Journal of Obesity*, *34*(S2), S24–S31. https://doi.org/10.1038/ijo.2010.236

HeavyRunner, I., & Morris, J.S. (1997). Traditional Native culture and resilience. *Research & Practice, 5*(1), 1-6. https://conservancy.umn.edu/handle/11299/145989

Hernandez, G. (2013). Indigenous perspectives on community economic development: A north-south conversation. *Canadian Journal of Nonprofit and Social Economy Research, 4*(1), 6–24. https://doi.org/10.22230/cjnser.2013v4n1a109

Hibbard, M., & Adkins, R. (2013). Culture and economy: The cruel choice revisited. In R. Walker, D. Natcher, & T. Jolola (Eds.), *Reclaiming Indigenous Planning* (pp. 94–112). McGill-Queen's University Press.

Hoover, E. (2017). "You can't say you're sovereign if you can't feed yourself": Defining and enacting food sovereignty in American Indian community gardening. *American Indian Culture and Research Journal, (41)*3, 31-70. https://doi.org/10.17953/aicrj.41.3.hoover

Indigenous Food Systems Network. (n.d.). *Indigenous Food Systems Network*. https://www.indigenousfoodsystems.org/

Iseke, J., & Moore, S. (2011). Community-based Indigenous digital storytelling with elders and youth. *American Indian Culture and Research Journal*, *35*(4), 19–38. https://doi.org/10.17953/aicr.35.4.4588445552858866

Kamal, A.G., Linklater, R., Thompson, S., Dipple, J., & Ithinto Mechisowin Committee (2015). A recipe for change: Reclamation of Indigenous food sovereignty in O-Pipon-Na-Piwin Cree Nation for decolonization, resource sharing, and cultural restoration. *Globalizations*, *12*(4), 559–575. https://doi.org/10.1080/14747731.2015.1039761

Keno, D., Keno, O., & Michnik, K. (2018, June 19-21). *A healing journey by canoe.* [Presentation] Indigenous Food Sovereignty Summit 2018, Winnipeg, MB, Canada. http://ecohealthcircle.com/students-2/

Keoke, E., & Porterfield, K. (2005). *American Indian contributions to the world: Food, farming and hunting.* Chelsea House.

Klatt, R., & Thompson, S. (2017). *High school - then what? Education in Wasagamack First Nation*. [video]. YouTube. https://www.youtube.com/watch?v=SC0NswCF4BE

Kral, I. (2010). Generational change, learning and remote Australian Indigenous youth. *Center for Aboriginal Economic Policy Research Working Paper,* (68). https://caepr.cass.anu.edu.au/research/publications/working-papers

Krasny, M., & Tidball, K. (2009). Community gardens as context for science, stewardship, and advocacy learning. *Cities and the Environment*, *2*(1), 1-18. https://doi.org/10.15365/cate.2182009

Kuhnlein, H. (2013). What food system intervention strategies and evaluation indicators are successful with Indigenous peoples? In H. Kuhnlein, B. Erasmus, D. Spigelski, & B. Burlingame (Eds.), *Indigenous Peoples' food systems and well-being: Interventions and policies for healthy communities* (pp. 237-256).

Lee, T.S. (2009). Language, identity, and power: Navajo and Pueblo young adults' perspectives and experiences with competing language ideologies. *Journal of Language, Identity, and Education, 8*, 307-320. https://doi.org/10.1080/15348450903305106

Lemke, S., & Delormier, T. (2017). Indigenous peoples' food systems, nutrition, and gender: Conceptual and methodological considerations. *Maternal & Child Nutrition, 13*(S3), e 12499. https://doi.org/10.1111/mcn.12499

Levi, E. (2020). Indigenous philosophies and perspectives on traditional food systems including food as cultural identity: Maintaining food security in Elsipogtog First Nation, New

Brunswick. In P. Settee, & S. Shailesh (Eds.), *Indigenous Food Systems: Concepts, Cases and Conversations* (pp. 39-56). Canadian Scholars.

Mainella, F., Agate, J., & Clark, B. (2011). Outdoor-based play and reconnection to nature: A neglected pathway to positive youth development. *New Directions for Youth Development, 130,* 89-104. https://doi.org/ 10.1002/yd.399

McCarty, T.L., & Lee, T.S. (2014). Critical culturally sustaining/revitalizing pedagogy and Indigenous education sovereignty. *Harvard Educational Review, 84*, 101-124. https://doi.org/10.17763/haer.84.1.q83746nl5pj34216

McCorrister, C. (2016). *Northern Manitoba community food security and cultural food heritage.* McConnel Foundation. https://mcconnellfoundation.ca/northern-manitoba-community-food-security-and-cultural-food-heritage/

McGregor, D. (2016). Living well with the earth: Indigenous rights and the environment. In C. Lennox & D. Short (Eds.), *Handbook of Indigenous peoples' rights* (pp. 167-180). Routledge, Taylor & Francis Group.

Michnik, K. (2018). *Reclamation, participation and self-determination: Land-based learning and community gardening and farming in Garden Hill First Nation.* (Master’s thesis, University of Manitoba, Winnipeg, Canada). https://mspace.lib.umanitoba.ca/xmlui/handle/1993/33632

Mmari, N., Blum, R., & Teufel-Shone, N. (2010). What increases risk and protection for delinquent behaviors among American Indian youth? Findings from three tribal communities. *Youth & Society, 41*(3), 383–413. https://doi.org/10.1177/0044118X09333645

Morrison, D. (2011). Indigenous food sovereignty: a model for social learning. In H. Wittman, A.A. Desmarais, & N. Wiebe (Eds.), *Food sovereignty in Canada: Creating just and sustainable food systems* (97-113). Fernwood Publishing.

Morrison, D. (2020). Reflection and realties: Expressions of food sovereignty in the fourth world. In P. Settee & S. Shailesh (Eds.), *Indigenous food systems: Concepts, cases and conversations.* Canadian Scholars.

Musafiri, P. (2012). Right to self-determination in international law: Towards theorization of the concept of Indigenous Peoples/national minority? *International Journal on Minority and Group Rights, 19*(4), 481-532. https://doi.org/10.1163/15718115-01904006

Nadasdy, P. (2003). *Hunters and bureaucrats: Power, knowledge, and Aboriginal-state relations in the southwest Yukon.* UBC Press.

Nakata, M. (2013). The rights and blights of the politics in Indigenous higher education. *Anthropological Forum, 23*(3), 289-303. ttps://doi.org/10.1080/00664677.2013.803457

Olsen Harper, A., & Thompson, S. (2017). Structural oppressions facing Indigenous students in Canadian education. *Fourth World Journal, 15*(2), 41-66.

Okorosobo. T. (2017). *Building livelihood and food security through social enterprise: A case study of Garden Hill First Nation community in Manitoba, Canada*. (Master's thesis, University of Manitoba, Winnipeg, Manitoba). https://mspace.lib.umanitoba.ca/xmlui/handle/1993/32579

Pidgeon, M., Munoz, M., Kirkness, V.J., & Archibald, J. (2013). Indian control of Indian education: Reflections and envisioning the next 40 years. *Journal of Native Education, 36*(1), 5-35.

Puzyreva, M. (2018). *Harnessing the potential of social enterprise in Garden Hill First Nation.* Canadian Center for Policy Alternatives. https://www.policyalternatives.ca/publications/reports/harnessing-potential-social-enterprise-garden-hill-first-nation

Ritchie, H., & Roser, M. (2020). *Environmental impacts of food production.* https://ourworldindata.org/environmental-impacts-of-food

Robin, T. (2019). Our hands at work: Indigenous food sovereignty in western Canada. *Journal of Agriculture, Food Systems, and Community Development, 9(*S2), 85-99. https://doi.org/10.5304/jafscd.2019.09B.007

Robin, T., & Cidro, J. (2020). Rebuilding cultural identity and Indigenous food sovereignty with Indigenous youth through traditional food access and skills in the city. In P. Settee & S. Shailesh (Eds.), *Indigenous food systems: Concepts, cases and conversations* (pp. 135-151). Canadian Scholars.

Settee, P. (2016). Indigenous women charting local and global pathways forward. *English Journal*, *106*(1), 45–50.

Settee, P., & Shukla, S. (2020). (Eds). *Indigenous food systems: Concepts, cases and conversations.* Canadian Scholars.

Simpson, L. R. (2004). Anticolonial strategies for the recovery and maintenance of Indigenous Knowledge. *American Indian Quarterly, 28*(3/4), 373–384. https://doi.org/10.1353/aiq.2004.0107

Simpson, L.R. (2017). *As we have always done: Indigenous freedom through radical resistance.* University of Minnesota Press.

Sivagurunathan, D., & Lins, H. (2017). Meechim farm: Kistiganwacheeng permaculture design. Mino Bimaadiziwin Partnership. http://ecohealthcircle.com/wp-content/uploads/2019/04/Meechim-Farm_Updated_Compressed.pdf

Smith, L. (1999). *Decolonizing methodologies: Research and Indigenous peoples*. Zen Books Ltd.

Statistics Canada. (2016). *Manitoba (Table). Division No. 22, CDR [Census division], census profile. 2016 Census*. Statistics Canada catalogue no. 98-316-X2016001. Ottawa: Statistics Canada. https://www12.statcan.gc.ca

Tarasuk, V. & Mitchell A. (2020). *Household food insecurity in Canada, 2017-18*. Toronto: Research to identify policy options to reduce food insecurity (PROOF). https://proof.utoronto.ca/

Tauli-Corpuz, V., Alcorn, J., & Molnar, A. (2018). *Cornered by protected areas: Replacing 'fortress' conservation with right-based approaches helps bring justice for Indigenous Peoples and local communities, reduces conflicts, and enables cost-effective conservation and climate action*. Rights and Resources Group. https://rightsandresources.org/wp-content/uploads/2018/06/Cornered-by-PAs-Brief_RRI_June2018.pdf

Thompson, S., Gulruhk, A., Alam, M.A. & Weibe, J. (2012). "Community Development to Feed the Family in Northern Manitoba Communities: Evaluating Food Activities Based on Their Food Sovereignty, Food Security, and Sustainable Livelihood Outcomes." *Canadian Journal of Nonprofit and Social Economy Research,* 3 (2): 43–66.

Thompson, S., Rony, M., Temmer, J., & Wood, D. (2014). Pulling in the Indigenous fishery cooperative net: Fishing for sustainable livelihoods and food security in Garden Hill First Nation, Manitoba, Canada. *Journal of Agriculture, Food Systems, and Community Development, 4*(3), 177–192. https://doi.org/10.5304/jafscd.2014.043.016

Thompson, S., Thapa, K., & Whiteway, N. (2019). Sacred harvest, sacred place: Mapping harvesting sites in Wasagamack First Nation. *Journal of Agriculture, Food Systems, and Community Development, 9*(1), 1-29. /10.5304/jafscd.2019.09B.017

Thompson, S., Bonnycastle, M., & Hill, S. (2020). *COVID-19, First Nations and poor housing: "Wash hands frequently" and "self-isolate" akin to "let them eat cake" in First Nations with overcrowded homes lacking piped water*. Canadian Center for Policy Alternative. https://www.policyalternatives.ca/publications/reports/covid-19-first-nations-and-poor-housing

Thompson, S., Pritty, P., & Thapa, K. (2020). Eco-carnivores and sustainable food security in remote Indigenous communities: The foodshed of Garden Hill First Nation case study. In R. Katz-Rosene, & S. Martin (Eds.), *Green meat: Sustaining eaters, animals, and the planet* (pp. 107-132). McGill-Queen's University Press.

Thompson, S., Whiteway, N., & Harper, V. (2020). *Keeping our land the way the creator taught us: Our home and Native land: Wasagamack First Nation ancestral land use.* Manitoba First Nations Education Resource Centre. http://ecohealthcircle.com/wp-content/uploads/2020/12/Lets-keep-our-land-sacred-as-the-creator-taught-us-compressed.pdf

Tobias, J.K., & Richmond, C.A.M. (2014). "That land means everything to us as Anishinaabe": Environmental dispossession and resilience on the north shore of Lake Superior. *Health and Place*, *29*, 26–33. https://doi.org/10.1016/j.healthplace.2014.05.008

Trinidad, A.M.O. (2009). Toward kuleana (responsibility): A case study of a contextually grounded intervention for Native Hawaiian youth and young adults. *Aggression and Violent Behavior*, *14*(6), 488–498. https://doi.org/10.1016/j.avb.2009.07.008

Truth and Reconciliation Commission of Canada. (2015). *5. Canada's residential schools: The history, part 2 - 1939 to 2000* (Vol. 1). http://trc.ca/assets/pdf/Volume1HistoryPart2EnglishWeb.pdf

UNICEF. (2017). *The state of the world's children 2017: Children in a digital world*. UNICEF Publications.

Waziyatawin. (2012). The paradox of Indigenous resurgence at the end of empire. *Decolonization: Indigeneity, Education & Society*, *1*(1), 68–85.

Wilson, K. (2003). Therapeutic landscapes and First Nations peoples: An exploration of culture, health and place. *Health and Place*, *9*(2), 83–93. https://doi.org/10.1016/S1353-8292(02)00016-3

Winnipeg Free Press. (2018, March 30). *Four First Nations leave Manitoba Keewatinowi Okimakanak*. https://www.winnipegfreepress.com/local/four-first-nations-leave-manitoba-keewatinowi-okimakanak-478407953.html

Young, T.K., Reading, J., Elias, B., & O'Neil, J.D. (2000). Type 2 diabetes mellitus in Canada's First Nations: Status of an epidemic in progress. *Canadian Medical Association Journal, 163*(5), 561–566.

Vol. 8 No. 2, pp. 137-165 August 2021

Canadian Food Studies
La Revue canadienne des études sur l'alimentation

Original Research Article

Working for justice in food systems on stolen land? Interrogating food movements confronting settler colonialism

Michaela Bohunicky[a*] Charles Z. Levkoe[a] and Nick Rose[b]

[a] Lakehead University
[b] Williams Angliss Institute

Abstract

The evolving practice and scholarship surrounding food movements aim to address social, political, economic and ecological crises in food systems. However, limited interrogation of settler colonialism remains a crucial gap. Settler colonialism is the ongoing process that works to systematically erase and replace Indigenous Peoples with settler populations and identities. While many progressive and well-intentioned food movements engage directly with issues of land, water, identity, and power, critics argue they have also reified capitalism, white supremacy, agro-centrism and private property that are central to the ongoing dispossession of Indigenous Peoples. Scholars and advocates have called for greater accountability to the contradictions inherent in working towards social and ecological justice on stolen land. We write this paper as three settler activist-scholars to interrogate ways that social movements are responding to this call. A community-engaged methodology was used to conduct semi-structured interviews with individuals working in settler-led food movement organizations in northwestern Ontario, Canada and in southern Australia. We present our findings through three intersecting categories: 1) Expressions of settler inaction; 2) Mere inclusion of Indigenous Peoples and ideas; and, 3) Productive engagements that confront settler colonialism. To explore this third category in greater detail, we suggest a continuum that moves from situating our(settler)selves within the framework of settler colonialism to (re)negotiating relationships with Indigenous Peoples to actualizing productive positions of solidarity with Indigenous struggles.

*Corresponding author: mbohunic@lakeheadu.ca

DOI: 10.15353/cfs-rcea.v8i2.452
ISSN: 2292-3071

We argue that this work is essential for food movements that aim to transform relationships with the land, each other, and ultimately forge more sustainable and equitable food futures.

Keywords: Australia; Canada; food movements; Indigenous food sovereignty; settler colonialism

Introduction

Food movements have had significant success in raising consciousness, critiquing, and politicizing inequities in food systems (Gottlieb & Joshi, 2010; Holt-Giménez et al., 2018; Levkoe, 2014; Sbicca, 2015; Winne, 2010). However, limited interrogation of settler colonialism remains a crucial gap in food movement scholarship and activism. Settler colonialism is described as the ongoing process of invasion that works to systematically erase and replace Indigenous Peoples[1] with settler populations and identities (Veracini, 2010; Wolfe, 2006). While many progressive and well-intentioned food movements engage directly with issues of land, water, identity, and power, critics argue they have also reified capitalism, white supremacy, agro-centrism and private property that are central to the ongoing dispossession of Indigenous Peoples (Alkon & Mares, 2012; Borras, 2020; Lockie, 2013). Scholars and advocates have called for greater accountability to the contradictions inherent in working towards social and ecological justice on stolen land (Coté, 2016; Grey & Patel, 2014; Indigenous Circle, 2009; Martens et al., 2020).

We write this paper as three settler activist-scholars to interrogate ways that food movements are responding to this call by sharing research that explores how social movement organizations are addressing settler colonialism in their work. We use a reflexive community-engaged research methodology to navigate these issues through co-learning and to connect our own experiences and insights with those of participants. Semi-structured interviews were conducted with individuals working in settler-led food movement organizations in orthwestenrn Ontario, Canada and across southern Australia (encompassing the states of Western Australia, South Australia, and Victoria). This research is part of the Food: Locally Embedded, Globally Engaged (FLEdGE) project and speaks directly to the FLEdGE Good Food Principle of *Indigenous Foodways*. This principle calls for the support of "Indigenous food sovereignty by safeguarding traditional foodways that rely on the health of the land and intergenerational knowledge sharing supported by technologies, capacity, and infrastructure" (see fledgeresearch.ca).

---

[1] In this paper we use the term "Indigenous Peoples" to refer to the diverse set of people and groups that are the original inhabitants of specific places and maintain distinct cultures, languages, practices, institutions, and relationships with the lands in contrast to peoples who have colonized and/or settled those lands. In the context of Canada, the term Indigenous is inclusive of First Nations, Inuit, and Métis Peoples, and in Australia, it is inclusive of Aboriginal and Torres Strait Islander Peoples.

We present the findings through three intersecting categories that synthesize participants' experiences and observations: 1) Expressions of settler inaction; 2) Mere inclusion of Indigenous Peoples and ideas; and 3) Productive engagements and visions to confront settler colonialism. To explore the possibility of deeper engagements that confront settler colonialism, we suggest a continuum that moves from situating our(settler)selves within the framework of settler colonialism to (re)negotiating relationships with Indigenous Peoples to actualizing productive positions of solidarity with Indigenous struggles. We use the concept of "confronting" to encompass the process of acknowledging, learning, and interrogating as a prerequisite to addressing, dismantling, and decolonizing. In order to meet their aspirational goals around ecological sustainability and social justice, settler-based food movements must confront settler colonialism. We argue that this involves dynamic, place-based engagements through which settlers overcome fragility[2] and inclusion of Indigenous Peoples that primarily benefits settlers and fails to redistribute power. Through this central argument, we help advance an understanding of *how* food movement actors are furthering their understanding of and addressing settler colonialism. We also contend that this work does not fit into simple binary categories of "success" and "failure" but is found somewhere in the space between, where focus lies less on conventional measures of institutional impact but on relationality, contestation, and imagination (Haiven & Khasnabish, 2013). This work is an ongoing, collaborative process grounded in relationships of reciprocity, discomfort and uncertainty (Davis, Denis, & Sinclair, 2017; Regan, 2011; Sium et al., 2012; Tuck & Yang, 2012).

Context

In this section we trace the entanglement of settler colonialism through food systems, how food movements have (and have not) attended to such issues, and the guidance that can be garnered from Indigenous food sovereignties.

The ongoing role of settler colonialism in shaping food systems

Control of land is the irreducible element and primary motivation of the settler project, where land is taken from Indigenous Peoples through direct and indirect force (Lowman & Barker, 2015). In settler states, this political, social, and cultural structure forms the basis of personal and collective identities as well as institutions (Alfred, 2009), and is upheld through individuals' choices, mentalities, consent and active participation (Barker, 2009).

---

[2] Dina Gilio-Whitaker (2018) describes settler fragility as "the inability to talk about unearned privilege" of living on lands violently and unjustly taken on the premise of white supremacy and genocide disguised as democracy.

For this article, we use Barker's (2009, p. 328) definition of settler to encompass "peoples who occupy lands previously stolen or in the process of being taken from their Indigenous inhabitants or who are otherwise members of the 'Settler society,' which is founded on co-opted lands and resources."[3] Settler is intended to be a critical, relational term that "denaturalizes and politicizes the presence of non-Indigenous people on Indigenous lands," forcing the acknowledgment of *ongoing* contributions to the colonial project (Flowers, 2015). Settler colonialism is thus both historical and contemporary, structuring the past, shaping the present, and conditioning the future. Tuck & Yang (2012) discuss settler moves to innocence, described as convenient acts by settlers that absolve feelings of guilt and complicity without promoting meaningful alliances and transfers of power with Indigenous Peoples. In this paper, we use the term settler to emphasize active responsibility and complicity rather than a static, homogenous, and performative privilege (Jafri, 2012; Lawrence & Dua, 2005; Smith, 2014; Tuck & Yang, 2012).

The project of settler colonialism, that works through the legitimation and normalization of settler occupation of Indigenous lands, is at the heart of the dominant food system. In other words, settler colonialism is inherently enmeshed in the capitalist food systems' exploitation of land, water, and identity and through uncritical investments in private land ownership, industrial food production and harvesting, and nutrition and health science, along with the logics and institutions that sustain them (Kepkiewicz & Dale, 2018; Mosby, 2013). Dispossession of Indigenous Peoples and their food systems is enacted through settler colonial constructions such as political borders and jurisdictions, treaties, and reserves; assimilationist policies rooted in state legislation; discriminatory policies such as residential schools and bans on ceremonies, gatherings, and protocols related to traditional food practices; the patriarchal redirection of women's roles to the home; privatization of Indigenous land for varied urban and rural development purposes (e.g., "cottage colonization"); and privatization and environmental contamination through extractive resource industries (Daigle, 2019).[4] Each of these colonial and capitalist processes profoundly ruptures the complex web of land- and place-based relationships central to Indigenous cultures and nationhood (McFarlane & Schabus, 2017; Morrison, 2011).

---

[3] For examples of perspectives of the inclusion of Black people and people of color under the label "settler" see: Jafri (2012); Lawrence & Dua (2005); Morgan (2019); and Phung (2011).

[4] We refer to these examples of settler colonial constructions with recognition that there are a diversity of Indigenous traditions and aspirations that intersect with such constructions. For example, some Indigenous cultures have strong symmetries to Western constructions of agriculture and private property (Anderson, 2016).

Food movements and settler colonialism

The burgeoning field of Settler Colonial Studies and critical literature on Indigenous-settler alliances and solidarity highlight an underserved and problematic relationship between Indigenous struggles and settler-based movements for social and environmental justice (Davis, 2010; Davis, Denis, & Sinclair 2017; Fortier, 2017a; Indigenous Action, 2014; Kluttz et al., 2020; Wallace, 2013).

For example, Fortier (2017a) critiques the coalescence of decolonization with other liberatory struggles in settler colonial contexts by examining the contradictions inherent in social movements that seek to reclaim the commons on stolen land (e.g., the Occupy movement). These critiques resonate closely with the politics, discourses, and practices of food movements. Food movements can be described as *networks of networks* – collaborative efforts across sectors, scales, and places with collective goals to achieve more healthy, equitable, and sustainable food systems (Levkoe, 2014). There has been much progress within food movement scholarship in articulating and critiquing various social, economic, and ecological implications of the capitalist food system, including contributions to the climate crisis, exploitation of workers, and racialized and gender-based oppressions (Holt-Giménez et al., 2018; Sbicca, 2015; Winne, 2010). While critical perspectives have become well-established in food movement scholarship (Alkon & Agyeman, 2011; Gottlieb & Joshi, 2010; Guthman, 2008; Slocum, 2007), far fewer accounts consider settler colonialism as a framework to interrogate food systems (some exceptions include Bradley & Herrera, 2016; Etmanski, 2012; Mayes, 2018; Rotz, 2017).

Critical scholarship has traced the enforcement of settler colonial logics on Indigenous Peoples, their lands and food systems (for examples in Canada, see Daschuk, 2013; for Australia, see Mayes, 2018; Pascoe, 2018). However, only recently have important critiques emerged regarding ongoing settler colonialism in contemporary food movement practice and scholarship. This has included limited interrogation of settler privilege, responsibility, and complicity, and a failure to understand the intersecting structures that support settler colonialism such as patriarchy and white supremacy (Etmanski, 2012). Mayes (2018) points to settler colonialism as a major omission of food movements, resulting both in a failure to achieve their goals and the active reproduction of the very conditions they seek to challenge. For example, Kepkiewicz and colleagues (2015, p. 99) problematize movements' approaches towards the inclusion of marginalized groups as an example of well-intended settler action that fails to dismantle oppressive structures and redistribute power, reminding us that "no justice can happen on stolen land." Similarly, Grey & Newman (2018) discuss the appropriation of Indigenous gastronomy as part of a broader strategy promoting liberal conceptions of multiculturalism, a process they call "culinary colonialism" (p. 2). They consider gastronomy as a contemporary colonial frontier and argue that refusal, or "mindful withholding" (p. 15) of Indigenous food and cuisine from the mainstream can itself be an act of resistance and resurgence.

These critiques of inclusion contribute to a broader denouncement of the framework of state-centric inclusion and recognition to reconcile settler-Indigenous relations through settler-imposed and settler-controlled systems (Coulthard, 2014; Maddison & Brigg, 2011; Snyder, 2019). These gaps in food movements highlight a need to better acknowledge and address settler colonialism, including assumptions and expectations of when and how Indigenous Peoples and their food systems engage or disengage with settler-based food systems.

While food sovereignty discourse and practice aim to directly address power and control in food systems (Patel, 2009), the manifestations of the movement in the global north face a host of constructive critiques in relation to Indigenous struggles in settler colonial contexts. Food sovereignty originally emerged as part of an anti-capitalist project that sought the transformation of social relations including land access, protection, and redistribution (Desmarais, 2007; Tilzey, 2019). We center food sovereignty not because it was unanimously espoused by the movements represented by the participants (though it was by some), but because we see it as an encouraging approach for confronting settler colonialism. However, in a settler colonial context we must ask: access and redistribution for whom, protection from what, and control by who? Land and property relations are often considered primarily in the context of settler access and ownership and not in relation to illegitimate occupation and appropriation of Indigenous land through public and private property regimes (Kepkiewicz, 2020; Kepkiewicz & Dale, 2018). Further, the meaning of sovereignty itself must be re-examined, as Indigenous Peoples have distinct understandings of jurisdiction (Grey & Patel, 2014; Moreton-Robinson, 2015; Pasternak, 2017; Simpson, 2014). This suggests that Western notions of sovereignty be extended or reframed to include "Indigenous people's struggles for autonomy, self-sufficiency, and self-determination rather than within assertions of domination, control, and authority over ancestral homelands" (Coté, 2016, p. 9). Such critiques highlight that Indigenous Peoples in the global north have not seen their values and visions reflected in the food sovereignty movement (Desmarais & Wittman, 2014). This signals a need for food sovereignty movements—and food movements more generally—to embrace a process of unsettlement through interrogating and (re)centering relationships with Indigenous Peoples and land, and ultimately construct new, place-based notions and practices of solidarity (Davis, 2010; Davis, Hiller, et al., 2017; Fortier, 2017a; Indigenous Action, 2014; Kluttz et al., 2020; Wallace, 2013).

The contributions from Indigenous food sovereignties

Indigenous food sovereignty is a burgeoning field of scholarship that captures a diversity of theoretical and everyday expressions (Cidro et al., 2015; Daigle, 2019; Indigenous Circle, 2009; Kamal et al., 2015; Martens, 2015; Morrison, 2011; Rudolph & McLachlan, 2013; Whyte, 2018). While its acceptance and use vary, some suggest that Indigenous Peoples have embodied food sovereignty since time immemorial (Daigle, 2019; Morrison, 2011).

Indigenous food sovereignty is inextricably linked to broader processes of resistance to ongoing settler colonialism, as well as Indigenous cultural, social, and political resurgence (Daigle, 2019; Grey & Patel, 2014). According to the Indigenous Circle (2009) of Food Secure Canada that guided the People's Food Policy Project, current Indigenous food sovereignty efforts "continue to be linked to the historic claims to the hunting, fishing, and gathering grounds in their respective traditional territories" (p. 4) and foster ongoing connections "between the traditional and the contemporary, the urban and rural" (p. 8). Though explicitly for and by Indigenous Peoples, Indigenous food sovereignties and other land-based expressions of Indigenous resistance and resurgence offer guidance for settler-based food movements that not only wish to avoid undermining Indigenous efforts but actively support them. This entails embracing relationships to land and place that are not predicated on erasure, exploitation, and appropriation (Kepkiewicz & Dale, 2018; Langton, 2006; Martens, 2015; Townsend et al., 2009); supporting inherent and treaty rights and responsibilities that uphold traditional food practices on traditional lands (Grey & Newman, 2018; Morrison, 2011); decentering settler notions and expressions of sovereignty while re-centering the diverse perspectives of Indigenous authorities, women, youth, and Elders, as well as queer, trans, and two-spirited people (Daigle, 2019); adopting a decolonizing and feminist framework (Bradley & Herrera, 2016; Maddison & Brigg, 2011); and being accountable to the immeasurable economic and ecological restitution owed to Indigenous Peoples (Grey & Patel, 2014).

Importantly, Indigenous food sovereignties have been taken up by national-level food movements such as the People's Food Policy Project (PFPP, 2011) in Canada and the People's Food Plan (AFSA, 2013) in Australia. At regional scales, it has been adopted by the Indigenous Food Circle (IFC) in Thunder Bay, Ontario (Levkoe et al., 2019a) and the BC Food Systems Network in British Columbia (Morrison & Brynne, 2016), which serve as examples of those working to unsettle and decolonize food movement work. These examples suggest that some food movements are taking settler colonialism more seriously in their attempts to build equitable and sustainable food systems by embracing experiences and insights from Indigenous activists. Confronting settler colonialism is an essential step in this process. In the next section, we turn to our research findings that interrogate the efforts of settler-led food movement organizations in northwestern Ontario and southern Australia.

Methodology and methods

The approach to our research was informed by settler colonial studies, as well as Indigenous and decolonizing research methodologies, particularly the demands and critiques of anti-colonial and decolonizing settler scholarship. These include decentering settler perspectives wherever possible; seeking complementary frameworks that offer alternatives to settler colonialism (such as decolonization); interrogating social justice approaches to anti-colonial action; taking an intersectional approach; grounding work in long-term, reciprocal, place-based relationships;

sharing Indigenous perspectives with other settlers in non-appropriative ways; naming Indigenous influences; practicing critical self-reflexivity; and remaining attentive to the inherent limitations of settler subjectivities (Carlson, 2017; Fortier, 2017b; Macoun & Strakosch, 2013; Snelgrove et al., 2014). We come to this research as three settler activist-scholars with an aim to explore ways that food movements are responding to the challenges and criticisms of practicing and theorizing social and ecological justice on stolen land. We acknowledge and take responsibility for the many risks, contradictions, and limitations inherent in this work; we embrace these tensions and commit ourselves to the messiness, discomfort, and critique this work entails. We also acknowledge that we are navigating these issues alongside the research participants, and because of the co-learning opportunities yielded by the community-engaged approach to this research, our analysis of participants' perspectives cannot be easily separated from our own. Thus, this paper embraces the interconnections between scholarship and activism and the blurred subjectivity between researcher and researched (Reynolds et al., 2018; Levkoe et al., 2019b), as well as convergence between our findings and analysis.

Semi-structured interviews were conducted with representatives from settler-led food movement organizations in northwestern Ontario, Canada and in Western Australia, South Australia, and Victoria, Australia. Interview questions centered on past and current organizational confrontations of settler colonialism; relationships with Indigenous communities and support of Indigenous food sovereignty; the perceived successes and tensions, motivations and aspirations; and structural factors such as organizational model or policy. Participants were recruited through two food movement network organizations, Sustain: The Australian Food Network (Sustain) and the Thunder Bay and Area Food Strategy (TBAFS). Nick Rose is the Executive Director of Sustain and Charles Levkoe serves as an executive member for the TBAFS; both engaged in the research process through participating in conceptual discussions and supporting the data analysis and writing. Michaela Bohunicky conducted field work in Australia in July-September 2019 and in Ontario in September-December 2019. Purposeful and snowball sampling was used to recruit individuals and organizations that were interested in or actively addressing issues of settler colonialism through food systems work. This consisted of representatives from non-profit organizations, government departments including public health and city councils, academics, and private business. Twenty-three participants were settlers and the remaining four were Indigenous community leaders with experience partnering with settler-based organizations (three were based in southern Australia, one in Thunder Bay). The decision to interview primarily settlers was an attempt to take ownership of settler responsibilities but comes at the risk of (re)centering settler voices (Fortier, 2017b) and excluding Indigenous counter-narratives that could lend key insights and critique to settler perspectives. To counter this, our analysis (and the research process more generally) has been informed by the voices of four Indigenous participants, Indigenous scholars and activists, and our own experiences and relationships in our respective food movements. The findings and discussion in particular were guided by the voices of the Indigenous participants. Ten participants were interviewed in Ontario and 17 in Australia.

In the presentation of the findings, we anonymized all settler participants and described individuals by their respective sector and (where appropriate) organizational position. The two identified participants are Indigenous community leaders that requested to have their names attached to their words. Interviews were transcribed and coded using NVivo software. A thematic approach to qualitative data analysis resulted in three emergent themes that describe various ways in which participants and their organizations were engaging in issues of settler colonialism. While we recognize the many important distinctions between the Canadian and Australian contexts, including differences in size and remoteness across research sites, data collection was not extensive enough in each region to provide comparisons within this paper (though we recognize the opportunity and need for comparative studies as part of future research). Thus, we have combined the data analysis and present the findings together. By doing so, we hope to emphasize the process-based nature of this work while remaining mindful that these processes are context-specific. Conducting this research with food movement organizations in two settler states with similar, yet distinct colonial contexts presents an opportunity for these movements to learn from and with each other.

Northwestern Ontario, Canada

Northwestern Ontario encompasses over half of the province's land mass and is located northwest of Lake Superior, to the east of Manitoba and the west of James Bay. It sits on the Traditional Territory of the Anishinaabe Peoples of the Robinson-Superior Treaty (1850), Treaty 3, Treaty 5, and Treaty 9. Thunder Bay is the region's largest city with a population of about 110,000 (over half the region's population) and serves as a regional hub for health care and social services, retail food businesses, and other basic amenities. While the settler population is primarily of European and Scandinavian origin, Indigenous Peoples make up almost 13% of the city's population, the highest proportion of urban Indigenous Peoples in Canada (Statistics Canada, 2017).[5] There are also dozens of First Nations groups located throughout Northwestern Ontario, each with their own governance systems, histories, and cultures. Food movement activity in the region has been significant. For example, years of community engagement by members of the TBAFS contributed to the emergence of the IFC in 2017. The IFC aims to use food as a tool for reconciliation and resurgence through strengthening the fabric of Indigenous-led organizations in the Thunder Bay area, providing a space to develop Indigenous-led and decolonized solutions to food systems issues, and forge relationships between Indigenous-led and settler-led organizations (Levkoe et al., 2019a).

---

[5] A recent study coordinated by Anishnawbe Mushkiki suggests the population of Indigenous people may be more three times higher than Statistics Canada data indicates (Smylie, 2021).

Southern Australia (Victoria, South Australia, and Western Australia)

The research conducted in Australia involved members of organizations working in the cities of Melbourne and Bendigo (Victoria), Adelaide (South Australia), and the region to the southwest of Perth (Western Australia). Nearly 60% of Australia's Indigenous population lives in the states of New South Wales and Queensland, with Victoria (7%), South Australia (6%) and Western Australia (13%) accounting for less than 30% together (ABS, 2019). Melbourne is Australia's second-largest city, with a population of 5,200,000. The city was founded as a British settlement in 1838, on the lands of the Wurundjeri-Woiwurrung, the Bunurong, and the Boonwurrung nations. Adelaide's population is 1,430,000, making it Australia's fifth largest city. It was settled in 1836, on the lands of the Kaurna and Peramangk nations. Perth has a population of 2,000,000, making it Australia's fourth largest city. It was established in 1829, on the lands of Wajuk nation, with the region south of Perth comprising the lands of Amangu, Yued/Yuat, Whadjuk/Wajuk, Binjareb/Pinjarup, Wardandi, Balardong/Ballardong, Nyakinyaki, Wilman, Ganeang, Bibulmun/Piblemen, Mineng, Goreng and Wudjari and Njunga (ABS, 2019; AIATSIS, 2020). Together these 14 language groups are known as the Noongar Peoples, one of the largest Indigenous cultural and geographic blocks in Australia. Settler-led food movement activity in Australia has had a strong focus on typical expressions of other local food movements in the global north, such as community gardening, farmers markets, community supported agriculture and school garden programs. Organizations working across these and related fields are active in all three of the study areas. In recent years there has been a cohesive push in Western Australia towards regenerative agriculture. Due in large part to the scholarship and advocacy of settler-farmer Charles Massy (2017), the work of the University of Western Australia's Centre for Social Impact (CSI), Noongar elders, and others, dialogue has commenced with Noongar-led organizations and food movement groups in Perth and the southwest of Western Australia. A significant moment in this dialogue occurred with the *Danjoo Koorliny Walking Together Towards a Just and Sustainable Society*, a CSI-held Social Impact Festival from 15-20 July 2019.[6] This festival was designed and led by Noongar elders Dr. Noel Nannup, Dr. Richard Walley, Professor Colleen Hayward, and Carol Innes with the aim of 'embracing the spirit of Voice, Treaty and Truth' as the 200th year of colonization in Perth (2029) approaches.

---

[6] See https://www.csi.edu.au/news/voice-treaty-and-truth-walking-together-create-new-social-impact-festival/ and http://www.kelvybird.com/danjookoorliny/.

Findings

In this section, we present the research findings through three emergent themes: 1) Expressions of settler inaction; 2) Mere inclusion of Indigenous Peoples and ideas; and 3) Productive engagements and visions to confront settler colonialism. It is important to note that most participants spoke to multiple themes and thus their responses did not fit neatly into one category.

Considering our choice to use the terminology of settler colonialism in this project, settler participants' reactions to its uses and underlying meanings are noteworthy. This was not part of the initial interview questions but consistently came up in almost all of the conversations. Many admitted that settler colonialism was not a term they had used or were even familiar with prior to receiving the interview request (however, the term colonialism was more familiar). Some participants agreed that "settler" was an important and useful term, while others felt less comfortable with its use.

For example, one participant felt it was overly "academic" and not "tangible to people doing this work on the ground," while another preferred to think of their engagement with these issues as a "constantly evolving understanding of cultural heritage as it relates to Indigenous people." One participant expressed frustration with the divisiveness of labels such as settler/Indigenous and colonized/colonizer, arguing that everyone had all been colonized at some point in history and that there was a need for more constructive ways to relate to one another. We further explore the expressions of these terminologies through the findings and proceeding section.

Expressions of settler inaction

Participants agreed unanimously that confronting settler colonialism was important. However, many barriers were identified, often leading to or perpetuating inaction. In this section, we outline immobilizing factors relating to fears of upsetting Indigenous Peoples, fears of confronting other settlers, real and perceived capacities of Indigenous groups, and institutional limitations. We conclude with a description of participants' motivations to do this work.

Several identified barriers centred on a fear of upsetting Indigenous Peoples. Many participants spoke of a reluctance to engage in the process of confronting settler colonialism due to a fear of making mistakes such as not knowing proper protocols and teachings and not having guidance regarding where and how to engage. For example, two participants—one, a regional government worker and the other involved in research and education—said it was not until they formed a personal relationship with an Indigenous knowledge holder and received teachings that they felt comfortable performing and customizing land and country acknowledgements.[7]

---

[7] Land acknowledgements (as they are commonly referred to in Canada) and acknowledgments of country (Australia) are often made to open gatherings and are intended to recognize and pay respect to specific Indigenous nations' histories, cultures, and contributions to the area the gathering is taking place in, as well as the settler

They described the tension of not wanting to seem passive or tokenistic by reading the acknowledgement of country word for word, but also did not want to risk blundering something so important by going off script. In another instance, a city councillor spoke of settlers' hesitance in using local Indigenous language at community events, even though it is encouraged by the local Indigenous nation. Within the city council, they added, it is easy (and common) for people to offload engagement on a colleague they believe has more knowledge, experience, or willingness. Another participant who works in public health likened their hesitation to advocate on behalf of First Nations to the broken telephone game, where the message gets increasingly distorted as it gets whispered from person to person.

Concerns were also raised among participants reportedly self-censoring themselves in anti-colonial messaging to avoid creating discomfort for other settlers.
For instance, one participant who sits on a food policy council expressed that with recent member turnover and diverging views on colonialism, the space has not felt safe enough to broach the subject; they feared that calling people out could shut communication down at a time when teambuilding was imperative. In their encounters with settler farmers expressing anti-Indigenous views, a government worker in the agricultural sector reasoned: "It can be difficult, but it's not for me to fight battles… sometimes I just back off from being involved if I think that it could go badly." This speaks to a misalignment between organizational values and accountability among settlers in support of Indigenous Peoples. If settlers are not driven to engage in difficult conversations within their immediate work relationships, what does that mean for movement-wide efforts to address settler colonialism?

Several participants referred to barriers related to the perceived capacities of Indigenous groups. For example, some Indigenous groups were seen as inundated with engagements with settler organizations; so much so, according to one government employee, that sometimes settler groups forego attempts to engage entirely. This perceived lack of capacity was criticized by another participant, a city councillor, for being infantilizing, weakness-based, and born out of a colonial framework. Participants in multiple geographical locations also expressed uncertainty in navigating engagement in situations of conflict between Indigenous groups such as contested land or competition for government-granted status. The same government worker said this dilemma causes them to sometimes step back from engagement entirely: "There are times where you have to just step away because it's not for us to be involved in that contested relationship… We literally just don't get involved in any of the political side of things." This form of inaction may be suggestive of settler fragility and bias, and of deeply systemic tensions with no simple solutions.

Nearly every participant described facing institutional barriers and expressed doubts regarding institutions' capacities to address settler colonialism.

---

colonial impacts. In Australia, an acknowledgement of country is different from a welcome to country; while an acknowledgement of country can be performed by Indigenous and non-Indigenous people, only Indigenous Elders can welcome people to country.

Many reported facing a lack of capacity within their daily work because it was not technically part of their portfolio and it sits perpetually on the side of their desk, crowded out by daily operations and larger projects. Participants working in public health also reported juggling accountability to parties with competing priorities, namely the provincial government and community partners. This tension has become especially obvious in Indigenous food sovereignty projects where advocates continuously bump up against the structures that govern these institutions. For example, provincial funding requirements make it extremely difficult for public health to relinquish full decision-making authority to community partners, evading the power redistribution required for Indigenous food sovereignty. Competing values and priorities have also been evident in efforts to support some of the Indigenous-led initiatives like access to wild game, where jurisdictional issues between different levels of governments, as well as public health directives have been a major challenge.

Participants in the non-profit sector identified specific barriers in doing work to address settler colonialism. These challenges primarily centered on having no core funding and only short-term grants for staffing and programming.

This limits institutional memory and longer-term impact in the community, according to one participant. Multiple participants described being too busy maintaining daily operations, as well as "two-stepping" around entrenched systems to attend to strategic, longer-term work. While there are positive steps organizations can take, one participant added, they remain nested within a much larger model that they don't see changing for decades to come: "Until that bigger structure changes, it feels as though the movement is really, really slow. I know change has to happen on both levels, but it sometimes feels really hard to do that within the structure that we live in."

Some participants referred to confronting settler colonialism as an ethical or moral obligation to resolve a shameful, unresolved history. For example, one participant suggested, that unless we see settler colonialism as a foundational tenet of oppression, "we're always going to be working downstream. We're always going to be needing a foodbank, yelling at the government to increase minimum wages. We're always going to be looking at this from a catch-up position instead of addressing the cause." These obligations at times were expressed in political commitments such as support for the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), Treaties between the Crown and Indigenous leaders, and public health research and practice mandates. Participants were also motivated by the growing failure of Western systems, the false legitimacy of settler sovereignty and identity, and the belief that addressing settler colonialism helps recover more sustainable and peaceful ways of living that can inform collective futures. There was also a strong acknowledgement that food systems work is embedded within settler colonialism, most prominently through issues related to land that remain glaringly absent from food movement discourse.

Mere inclusion of Indigenous Peoples and ideas

While participants described barriers to engagement, they also shared many examples where these challenges had been overcome. These were instances where organizations had made conscious efforts to embrace the inclusion of Indigenous Peoples and ideas. However, participants were quick to problematize such attempts and approaches of inclusion in that they primarily benefit settlers and fail to redistribute power. It is important to note that many of these instances of inclusion are founded in goodwilled intentions by settlers and an excitement to learn about and be a part of Indigenous-led efforts. Bruce Pascoe, an Aboriginal Australian writer and author of the bestselling non-fiction book *Dark Emu* that examines the history of Aboriginal agriculture, talked about his frustration with enthusiasm that stops short of action. Pascoe noted that this has especially come up when invited to take part in various festivals, meetings, and other spaces brimming with settler emotion:

> Excitement is a wonderful thing, but action as a result of excitement is the real crux. I can see the excitement. I'm surrounded by it... Just because you're excited doesn't mean to say that's going to be enough. We have to change the way the country operates… Not this gushy excitability. It's not enough. And it infuriates me. I was suspicious of it when it began and I'm more suspicious of it now because that's all that's happened.

Pascoe added that both government and philanthropic organizations are guilty of this kind of lip service: "All talk, all excitement, all want to be in on that bandwagon, to say they're supporting Aboriginal communities. Well don't say it if you haven't already done it." Notably, Pascoe's work was mentioned by nearly every Australian participant.

The flipside to settler excitement is that it can also lead to further dispossession through inclusion. Referring to the ways Western researchers have been part of these problematic processes, a university professor explained, "The risk going forward is that people like me will get really excited by Bruce Pascoe's work, pick it up, and just kind of run off and do the white thing with it." An Indigenous bush food[8] business owner elaborated on the inherent risk of sharing work such as Pascoe's: "That's great now you've made everyone aware of [the history of Aboriginal agriculture]. But what are you doing to protect that information for our communities, because you've just released Pandora's box… If we highlight this, we have a responsibility then to make sure we are protecting it." Several participants mentioned Australia's bush food industry as a salient example of exploitation of Indigenous food systems, marked by a recent surge of settler enterprises appropriating and capitalizing on the nutritional, culinary, pharmaceutical, naturopathic, horticultural, and tourism opportunities of Indigenous bush foods.

---

[8] Bush foods, also known as bush tucker, refers to plant foods native to Australia.

Ongoing research suggests only 1% of the industry is owned or controlled by Indigenous Australians (Mitchell & Becker, 2019). This issue is not simply one of market competition but structural discrimination towards Indigenous economic development and land ownership and access, and thus clearly expressive of ongoing settler colonialism in Australia.

Collective spaces that allow settlers to connect with and learn from Indigenous Peoples were seen as a powerful way to harness excitement and ultimately ease settler ignorance. However, participants argued that this could also be problematic by placing unfair emotional demands on Indigenous partners and limits the capacity for productive alliance-building. This is precisely what Jessica McLaughlin, coordinator of Thunder Bay's IFC experienced. As it gained settler membership (representatives from settler-led, Indigenous-serving organizations), gaps in settler understanding of colonialism and readiness became increasingly apparent in meetings, causing many Indigenous members to express concern or stop showing up. Examples include settlers becoming fragile or emotional and diverting attention away from the collective agenda. "You can listen to me spew and sound like an angry Indian, but at the end of the day it's up to you to unpack [settler colonialism] yourself," she said.

Participants also voiced concerns over the emotional labour demanded from Indigenous partnerships, relations and board positions, the offloading effect they can have on settler accountability, and their often siloed, tokenistic and precarious nature.
McLaughlin described her own experience in these positions as isolating, awkward, and painful, especially without settler allies. It is important to note that other settler participants applauded these institutional practices of inclusion. For instance, one participant working for a regional government in agriculture and land care spoke about the many benefits of having an Indigenous facilitator (hired through a federal grant): "It's been key…We could ask all sorts of dumb questions, or ignorant questions and he would be willing to answer them knowing that in the process, he's educating us on the right and wrong way to go about things." These expressions raise important questions about the kinds of additional responsibilities that might be placed onto settlers to offload unnecessary emotional labour from Indigenous individuals in leadership positions.

Other seemingly positive institutional practices of inclusion such as supportive policy, partnerships, working groups, and staff training were criticized by some participants as being ineffective institutional checkboxes that fail to change power relations between Indigenous and settler peoples or promote awareness among settlers of unequal power relations. For example, in one institutional partnership between a city council and an Indigenous community seeking special heritage status, a strong emphasis of Indigenous food systems in the bid was included with the objectives of strengthening Indigenous-settler relationships, promoting the region's "true story," and creating a coordinating mechanism across various food efforts in the region. However, a participant involved in the bid expressed concerns over tokenism and that the Council's "renewed" approach to the relationship would fail to redistribute ownership and authority: "It's always 'Come to our offices, on our terms, on our turf, with our meeting structures and our timelines'... Our whole structure has a kind of covert racism to it."

Another way that participants reported including Indigenous voices and knowledges in food systems work was through organizational events and programming. Examples included gently weaving elements of Indigenous food systems into annual farming events over multiple years; featuring prominent Indigenous people as keynote speakers at conferences; redistributing planning authority of multi-day gatherings to Indigenous people and groups; and holding meetings with Indigenous partners on their terms. Some participants also identified opportunities to promote Indigenous knowledge through more passive educational initiatives such as gardens, urban farms, and land and waterway restoration projects. While some of these initiatives did yield positive, long-term results, others were seen as problematic in similar ways to instances mentioned above (e.g., appropriation, excitement without action, emotional labour, tokenism, and institutional checkboxes). While some settler participants deemed the actions of other settlers as problematic—at times oblivious to their own problematic actions—others directed their critique internally. For example, reflecting on hosting Indigenous youth groups on his property, a settler farmer said that programming carries uncomfortable undertones of present-day assimilation strategies and that he feels apprehensive of whether or not these efforts actually make a difference for the groups: "Is this just us trying to put on a good show? … Who are we doing this for? Are we doing it for them or are we doing it for ourselves, so we feel better about what's happened in the past?"

Productive engagements and visions to confront settler colonialism

This third theme focuses on engagements that constitute more meaningful confrontations to settler colonialism. As this section demonstrates, confronting settler colonialism enables an engagement with other settlers in similar paths, forging new relationships with Indigenous Peoples, and eventually embodying settler responsibilities through food movement praxis, all processes described by participants as critical, life-long, mutually reinforcing, messy, and deeply unsettling. These processes can also be seen as the antitheses of processes of inaction and inclusion.

Uncovering history (one that exposes rather than conceals settler colonialism) and truth-telling was identified by many participants as an important starting place to confront settler colonialism, and as Pascoe insisted, a prerequisite to any collective conversations:

> Before we even have a conversation about food or employment or education, Australia has to have the conversation with itself and with us, hopefully, about how Europeans came here and why. What they did subsequent to that. The fact that the whole of Australia and parliament is racist from day one and that there have been absolute atrocities on this land. If we can't talk about that, if we don't admit to that, we cannot have a conversation.

Uncovering history and truth-telling was not only seen as an opportunity to learn from incredible harms committed, but also to glean insights into highly productive and harmonious Indigenous ways of life prior to European contact that have been practiced since time immemorial. In nearly every interview in Australia, Pascoe's book, *Dark Emu*, was described as seminal in participants' learning of Indigenous food systems and European colonization. However, as one participant reminded, spending too much time looking backwards means that "you're going to bump into the wall or the fence." Creating new visions for sustainable food systems requires more than passively learning history, but also interrogating present realities, identities and relationships with the land and Indigenous Peoples. These can be mutually reinforcing activities. For example, one non-profit organization collectively read and discussed Canada's Truth and Reconciliation Commission Report[9] and identified opportunities to support the report's Calls to Action. Participants also insisted that settlers engaging in anti-colonial learning and action have a dual responsibility to support this engagement among other settlers by providing spaces for settlers to collectively process and by sharing appropriate Indigenous protocols among settler networks. A director of a community-based non-profit described this support as dispelling too-common misunderstandings and excuses:

> I've sat at a lot of tables where people… think that if they don't spit at an Indigenous person that they're not a part of colonialism, and so I think my role is to do that knowledge translation… What a lot of people don't understand about this is a commitment of sharing power is difficult. It doesn't come without pain.

Supportive (settler) leadership was also seen by participants as extremely important in having the capacity to learn about and act in ways that challenge settler colonialism within their organizations, though not all felt this was a reality in their workplaces.

Participants stressed that having a basic understanding of settler colonialism allows for more productive, place-based relationships with Indigenous Peoples, and that the process of forging such relationships is uncomfortable, uncertain, slow, and messy. Pascoe comments, "We have to have that truth and reconciliation or whatever they call it. Where we call a spade a spade. It'll be deeply bruising… Being hurt and wounded and sore is part of the process." The IFC in Thunder Bay is an important example of a space where Indigenous-settler relationships are being forged. Though many challenges persist, McLaughlin stresses the importance of settler-led food organizations recognizing their power and using it to support Indigenous struggles. One settler member of the IFC echoed this sentiment, adding that supporting Indigenous struggles is not just going to meetings but is about bringing the IFC's demands back to their respective organizations and networks and fighting to secure commitment to those demands.

---

[9] In 2008, legal negotiations around the Indian Residential Schools Settlement Agreement mandated the establishment of a Truth and Reconciliation Commission (TRC) to create a space of learning, discussing, and documenting the history and impacts of the residential school system. The TRC worked from 2009-2015 and produced a series of materials available to the public, including the TRC Report (www.nctr.ca).

Although all participants had already begun learning about settler colonialism in one way or another, many admitted to struggling with where and how to start acting against it. Institutional approaches envisioned by participants include unwavering commitment to Indigenous-led community partners best positioned to do this work, such as the IFC; "scaffolding" anti-colonial structures across the entire organization rather than siloed within one workshop, project, department, or position; and undergoing a structured, formalized process of articulating a position on and committing to Indigenous food sovereignty that is part of a shared effort across many organizations. One non-profit organization in particular, through a recent strategic planning process, established a priority focused on challenging colonialism. A key staff member admitted that it has taken years of organizational growth and change to start thinking about their role as a settler organization working with Indigenous groups. The work now, they explained, is figuring out what it means to operationalize the priority, a perpetually uncertain process: "I think it's messy. Like it's really messy. But I think it's being comfortable in the messiness and being comfortable in the chaoticness of it and being comfortable in the discomfort."

Discussion

The findings from our research show that when food movement organizations seek to confront settler colonialism, it is a process riddled with challenges and missteps that requires constant interrogation, critical self-reflection, and disruption. We use the concept of *confronting* to encompass acknowledging, learning, and interrogating as a prerequisite to addressing, dismantling, and decolonizing. Most participants in our study expressed that they were in the early stages of conceptualizing what it means to confront settler colonialism while fewer were actively articulating and embodying such commitments. In this section, we reflect on the findings to identify possibilities for food movement organizations to more deeply engage with confronting settler colonialism. We suggest these engagements as a continuum that moves from situating our(settler)selves within the framework of settler colonialism to (re)negotiating relationships with Indigenous Peoples to actualizing productive positions of solidarity with Indigenous struggles. While these processes are mutually reinforcing, we suggest that they also must, to some extent, be navigated sequentially in order to minimize further exploitation and unnecessary labour for Indigenous Peoples.

Situating our (settler)selves

McLaughlin asserted that unpacking settler colonialism should be primarily the responsibility of settlers, not Indigenous Peoples. However, a lack of understanding of settler colonialism was identified as a key challenge among participants.

Discomfort with the implications of embracing the concept of "settler," fear of upsetting others (i.e., both Indigenous and settler people), perceptions of overstretched Indigenous groups, and the sheer complexity and deep entrenchment of settler colonialism were all factors that led to inaction and in many cases immobilization for settlers. While such feelings of discomfort, fear, and fragility are common in the process of learning and unlearning about settler colonialism, if they do not evolve into more productive forms of engagement, they effectively negate settler responsibilities and ultimately constitute moves to innocence (Davis, Hiller, et al., 2017; Kluttz et al., 2020; Lowman & Barker, 2015; Regan, 2011; Tuck & Yang, 2012). This is similar to feelings of excitement to support Indigenous struggles that are not adequately accompanied by action.

We also see that taking on the work of unpacking settler colonialism within settler circles offloads some of the emotional labour demanded of Indigenous people in educating settlers—a problematic process discussed in the next category. Further, many motivations such as being accountable to moral (social), political, environmental, and professional obligations become realized while learning about settler colonialism, propelling settlers to approach their work with new understandings or engage in different kinds of work (e.g., anti-colonial).

Indeed, until settler colonialism and its implications for land, food and sovereignty are "common parts of our lexicon," as one participant described, settlers are going to have difficulty addressing these complex challenges. However, while all participants viewed settler colonialism as deeply problematic, many framed it historically and without mention of their own complicity. For example, the settler participant who preferred to see their engagement with these issues as a "constantly evolving understanding of cultural heritage as it relates to Indigenous people" risks naturalizing their own settler positionality which distracts from the need to turn their gaze inward on their settler-self (Jones & Jenkins, 2008). We echo scholars that have cautioned an engagement in settler colonialism that does not emphasize its pervasiveness, intersectionality, and settler responsibility and complicity (see Coulthard, 2014; Jafri, 2012; Lawrence & Dua, 2005).

Renegotiating relationships

For many food movement organizations, partnerships are a central site for examining and actively challenging settler colonialism. While settlers have unique and important roles in confronting settler colonialism, addressing it is a relational, collective process that cannot be done in isolation from Indigenous Peoples. However, findings show that increasingly common ways of centering and collaborating with Indigenous people use an approach of inclusion that favours settler access to Indigenous Peoples and food systems rather than supporting permanent transfers of power and ownership (for example, see Kepkiewicz et al., 2015 and Coulthard, 2014).

We see examples of this inclusion in relationship building for the purpose of educating settlers and in the creation of Indigenous positions within organizational structures to "indigenize" the workplace. Another example is found in public health officials' reports of feeling caught between competing priorities of the government and their Indigenous community partners. This tension can become part of settler moves to innocence which supports doubts of the capacity of larger bureaucratic organizations to address settler colonialism. However, the autonomy that public health maintains as a peri-government institution carries with it the possibility of change.

In contrast, participants insisted that building authentic relationships between Indigenous and settler peoples is difficult and messy work that requires both systemic integration and unconditional commitment from settlers in asserting influence in their own settler spaces and towards settler governments to support Indigenous demands. Mississauga Nishnaabeg scholar and activist Leanne Betasamosake Simpson writes, "the alternative to extractivism is deep reciprocity. It's respect, it's relationship, it's responsibility, and it's local" (quoted in Klein, 2013). Thus, relationships between Indigenous and settler peoples are important elements of collective transformation, the viability of which we now consider in the context of food movement organizations.

Actualizing organizational commitment

Recognizing that settler colonialism is an issue at the core of food movement work, some participants have begun exploring how to articulate institutionally and embody commitments to Indigenous struggles within their organizations. However, this research demonstrates that there are few instances where this is actively being done, confirming that more work is required to articulate, enact, and propagate such commitments across scales, disciplines, and sectors. Interestingly, the most promising examples of organizational commitment in the findings were by smaller non-profit groups that are integrating anti-colonial learning and action into strategic planning and, by extension, all programs and operations. Yet, these are the organizations that felt they had very little infrastructure to do this work, with many participants demanding sweeping changes to imposing, higher-level structures such as national legislation, governance, and funding models. Many participants expressed challenges and doubts regarding organizational capacities to address settler colonialism. There were also many examples of inclusion through institutional processes and structures. As a result, food movements face difficult questions about how settler colonialism can be addressed through settler-imposed and settler-controlled systems and what they are willing to sacrifice in order to dismantle them.

Conclusion

Settler colonialism is an ongoing process of invasion that aims to systematically erase and replace Indigenous society with settler populations. Moreover, settler colonialism has been identified as a crucial gap in the scholarship and practice of food movements. The findings from this research leave us with a number of further questions: What lies beyond settler colonialism? How can it be overcome and transformed? What would a transformed food system look like in Canada, Australia, and globally? Does confronting settler colonialism enable food movement organizations to better support Indigenous food sovereignty? These questions are vital because the tumultuous beginnings of the second decade of the 21st century have made clear what critical food scholar-activists have expressed for some time: the dominant food system operates on the capitalist logic of the ceaseless expansion of production, consumption, and profit, and is fundamentally exploitative, wasteful, irrational, and inhumane to Indigenous Peoples and to society as a whole. John McMurtry (1999) likened capitalist expansion across civil and environmental systems to the destructive invasion and proliferation of cancer in the human body. Thus, he suggested, we have reached the cancer stage of capitalism. We argue that from a food sovereignty perspective, the work of confronting settler colonialism is necessarily imbricated with the urgent task of moving beyond the self-destructive logic of capitalism, which has always been deeply interconnected with the ongoing project of settler colonialism (Rose, 2021). By engaging in this process, food movements can commence and advance the work of building relationships of trust and solidarity between Indigenous and settler populations to co-create a shared vision of living together in harmony and respect.

In this paper, we have advanced an understanding of how food movement actors are furthering their understanding of and addressing settler colonialism through the process of confrontation. We argued that this involves overcoming a multitude of immobilizing factors so that settlers can put the time and effort necessary into both independent and collective learning, finding non-exploitative ways of building relationships with Indigenous Peoples, and exploring ways to embody dynamic, place-based solidarity through the many types of organizations represented in food movements. Though these methods of confronting settler colonialism can be mutually reinforcing, they are rarely comfortable, straightforward, or pre-determined. This work is an essential part of Indigenous food sovereignty and necessary for settler food movements in the global north that aim to transform relationships with each other, the land, and ultimately forge more sustainable and equitable food futures. Indeed, this work is urgent and must be at the core of the political project of social and environmental transformation.

Acknowledgements: We would like to acknowledge funding contributions from Mitacs, the Social Science and Humanities Research Council of Canada, and FLEdGE (Food: Locally Embedded, Globally Engaged). We also wish to express our gratitude to Lindsay Galway, Rebecca Schiff, Peter Andree, the Sustainable Food Systems Lab group at Lakehead University, and all of the research participants for their invaluable time and insights.

References

ABS [Australian Bureau of Statistics]. (2019). *QuickStats*. https://www.abs.gov.au/websitedbs/D3310114.nsf/Home/2016%20QuickStats

AFSA [Australian Food Sovereignty Alliance] (2013). *The peoples' food plan: A common-sense approach to a tasy, resilient and fair food system for all Australians*. afsa.org.au/wp-content/uploads/2012/10/PFP-policy-august13.pdf

AIATSIS [Australian Institute of Aboriginal and Torres Strait Islander Studies] (2020). *AIATSIS map of Indigenous Australia.* Retrieved from https://aiatsis.gov.au/aboriginal-studies-press/products/aiatsis-map-indigenous-australia

Alfred, T. (2009). *Wasase: Indigenous pathways of action and freedom*. University of Toronto Press.

Alkon, A. H., & Agyeman, J. (Eds.). (2011). *Cultivating food justice: Race, class, and sustainability*. MIT Press.

Alkon, A. H., & Mares, T. M. (2012). Food sovereignty in US food movements: Radical visions and neoliberal constraints. *Agriculture and Human Values*, *29*(3), 347-359. https://doi.org/10.1007/s10460-012-9356-z

Anderson, T. L. (2016). *Unlocking the wealth of Indian nations.* Lexington Books.

Barker, A. J. (2009). The contemporary reality of Canadian imperialism: Settler colonialism and the hybrid colonial state. *American Indian Quarterly, 33*(3), 325-351.

Borras, S. M. (2020). Agrarian social movements: The absurdly difficult but not impossible agenda of defeating right-wing populism and exploring a socialist future. *Journal of Agrarian Change*, *20*(1), 3-36. https://doi.org/10.1111/joac.12311

Bradley, K., & Herrera, H. (2016). Decolonizing food justice: Naming, resisting, and researching colonizing forces in the movement. *Antipode, 48*(1), 97-114. https://doi.org/10.1111/anti.12165

Carlson, E. (2017). Anti-colonial methodologies and practices for settler colonial studies. *Settler Colonial Studies, 7*(4), 496-517. https://doi.org/10.1080/2201473X.2016.1241213

Cidro, J., Adekunle, B., Peters, E., & Martens, T. (2015). Beyond food security: Understanding access to cultural food for urban Indigenous people in Winnipeg as Indigenous food sovereignty. *Canadian Journal of Urban Research, 24*(1), 24-43. https://cjur.uwinnipeg.ca/index.php/cjur/article/view/9

Coté, C. (2016). "Indigenizing" food sovereignty: Revitalizing Indigenous food practices and ecological knowledges in Canada and the United States. *Humanities, 5*(57), 1-14. https://doi.org/10.3390/h5030057

Coulthard, G. (2014). *Red skin, white masks: Rejecting the colonial politics of recognition.* University of Minnesota Press.

Daigle, M. (2019). Tracing the terrain of Indigenous food sovereignties. *The Journal of Peasant Studies, 46*(2), 297-315. https://doi.org/10.1080/03066150.2017.1324423

Daschuk, J. (2013). *Clearing the plains: Disease, politics of starvation, and the loss of Indigenous life*. University of Regina Press.

Davis, L. (2010). *Alliances: Re/envisioning Indigenous-non-Indigenous relationships*. University of Toronto Press.

Davis, L., Denis, J., & Sinclair, R. (2017). Pathways of settler decolonization. *Settler Colonial Studies, 7*(4), 393-397. https://doi.org/10.1080/2201473X.2016.1243085

Davis, L., Hiller, C., James, C., Lloyd, K., Nasca, T., & Taylor, S. (2017). Complicated pathways: Settler Canadians learning to re/frame themselves and their relationships with Indigenous peoples. *Settler Colonial Studies*, *7*(4), 398-414. https://doi.org/10.1080/2201473X.2016.1243086

Desmarais, A. (2007). *La Vía Campesina: Globalization and the power of peasants*. Fernwood.

Desmarais, A. A., & Wittman, H. (2014). Farmers, foodies and First Nations: Getting to food sovereignty in Canada. *The Journal of Peasant Studies, 41*(6), 1153-1173. https://doi.org/10.1080/03066150.2013.876623

Etmanski, C. (2012). A critical race and class analysis of learning in the organic farming movement. *Australian Journal of Adult Learning*, *52*(3), 484–506.

Flowers, R. (2015). Refusal to forgive: Indigenous women's love and rage. *Decolonization: Indigeneity, Education & Society, 4*(2), 32-49.

Fortier, C. (2017a). *Unsettling the commons: Social movements within, against, and beyond settler colonialism.* Arbeiter Ring Publishing.

Fortier, C. (2017b). Unsettling methodologies/decolonizing movements. *Journal of Indigenous Social Development, 6*(1), 20-36.

Gilio-Whitaker, D. (2018, November 14). *Settler fragility: Why settler privilege is so hard to talk about*. Beacon Broadside. https://www.beaconbroadside.com/broadside/2018/11/settler-fragility-why-settler-privilege-is-so-hard-to-talk-about.html

Gottlieb, R., & Joshi, A. (2010). *Food justice*. MIT Press.

Grey, S., & Newman, L. (2018). Beyond culinary colonialism: Indigenous food sovereignty, liberal multiculturalism, and the control of gastronomic capital. *Agriculture and Human Values, 35*, 717–730. https://doi.org/10.1007/s10460-018-9868-2

Grey, S., & Patel, R. (2014). Food sovereignty as decolonization: Some contributions from Indigenous movements to food system and development politics. *Agriculture and Human Values, 32*(3), 431-444. https://doi.org/10.1007/s10460-014-9548-9

Guthman, J. (2008). "If they only knew": Color blindness and universalism in California alternative food institutions. *The Professional Geographer, 60*(3), 387-397. https://doi.org/10.1080/00330120802013679

Haiven, M., & Khasnabish, A. (2013). Between success and failure: Dwelling with social movements in the hiatus. *Interface, 5*(2), 472-498.

Holt-Giménez, E., Alonso-Fradejas, A., Holmes, T., & Robbins, M. J. (Eds.). (2018). *Food sovereignty: Convergence and contradictions, condition and challenges*. Routledge.

Indigenous Action. (2014). *Accomplices not allies: Abolishing the ally industrial complex.* http://www.indigenousaction.org/accomplices-not-allies-abolishing-the-ally-industrial-complex/

Indigenous Circle (2009). *Discussion paper 1: Indigenous food sovereignty* [A People's Food Policy, Food Secure Canada]. https://foodsecurecanada.org/resources-news/newsletters/discussion-papers-peoples-food-policy

Jafri, B. (2012). *Privilege vs. complicity: People of colour and settler colonialism*. Federation for the Humanities and Social Sciences. http://www.ideasidees.ca/blog/privilege-vs-complicity-people-colour-and-settler-colonialism

Jones, A., & Jenkins, K. (2014). Rethinking collaboration: Working the Indigene-Colonizer hyphen. In N. K. Denzin, Y. S. Lincoln, & L. T. Smith (Eds.), *Handbook of critical and Indigenous methodologies* (pp. 471-486). SAGE Publications, Inc. https://dx.doi.org/10.4135/9781483385686

Kamal, A. G., Linklater, R., Thompson, S., Dipple, J., & Ithinto Mechisowin Committee (2015). A recipe for change: Reclamation of Indigenous food sovereignty in O-Pipon-Na-Piwin Cree Nation for decolonization, resource sharing, and cultural restoration. *Globalizations, 12*(4), 559-575. https://doi.org/10.1080/14747731.2015.1039761

Kepkiewicz, L. (2020). Whose land? *ACME: An International Journal for Critical Geographies*, *19*(1), 245-269. Retrieved from https://acme-journal.org/index.php/acme/article/view/1760

Kepkiewicz, L., & Dale, B. (2018). Keeping 'our' land: Property, agriculture and tensions between Indigenous and settler visions of food sovereignty in Canada. *The Journal of Peasant Studies*, *46*(5), 983-1002. https://doi.org/10.1080/03066150.2018.1439929

Kepkiewicz, L., Chrobok, M., Whetung, M., Cahuas, M., Gill, J., Walker, S., & Wakefield, S. (2015). Beyond inclusion: Toward an anti-colonial food justice praxis. *Journal of Agriculture, Food Systems, and Community Development, 5*(4), 99–104. http://dx.doi.org/10.5304/jafscd.2015.054.014

Klein, N. (2013, March 6). *Dancing the world into being: A conversation with Idle No More's Leanne Simpson*. Yes! Solutions Journal. https://www.yesmagazine.org/social-justice/2013/03/06/dancing-the-world-into-being-a-conversation-with-idle-no-more-leanne-simpson/

Kluttz, J., Walker, J., & Walter, P. (2020). Unsettling allyship, unlearning and learning towards decolonising solidarity. *Studies in the Education of Adults*, *52*(1), 49-66. https://doi.org/10.1080/02660830.2019.1654591

Langton, M. (2006). Earth, wind, fire, and water: The social and spiritual construction of water in Aboriginal societies. In B. David, & B. Barker (Eds.), *The social archaeology of Australian Indigenous societies* (pp. 139-160). Aboriginal Studies Press.

Lawrence, B., & Dua, E. (2005). Decolonizing antiracism. *Social Justice, 32*(4),120-143.

Levkoe, C. Z. (2014). The food movement in Canada: A social movement network perspective. *The Journal of Peasant Studies, 41*(3), 385-403. https://doi.org/10.1080/03066150.2014.910766

Levkoe, C., Ray, L., & Mclaughlin, J. (2019a). The Indigenous Food Circle: Reconciliation and Resurgence through Food in Northwestern Ontario. *Journal of Agriculture, Food Systems, and Community Development*, *9*(B), 101-114. https://doi.org/10.5304/jafscd.2019.09B.008

Levkoe, C. Z., Brem-Wilson, J., & Anderson, C. R. (2019b). People, power, change: three pillars of a food sovereignty research praxis. *The Journal of Peasant Studies*, *46*(7), 1389-1412.

Lockie, S. (2013). Bastions of white privilege? Reflections on the racialization of alternative food networks. *International Journal of Sociology of Agriculture and Food*, *23*(3), 409-418.

Lowman, E. M., & Barker, A. J. (2015). *Settler: Identity and colonialism in 21st century Canada*. Fernwood.

Macoun, A., & Strakosch, E. (2013). The ethical demands of settler colonial theory. *Settler Colonial Studies, 3*(4), 426-443. https://doi.org/10.1080/2201473X.2013.810695

Maddison, S., & Brigg, M. (Eds.). (2011). *Unsettling the settler state: Creativity and resistance in Indigenous-Settler state governance*. The Federation Press.

Martens, T. (2015). *Good news in food: Understanding the value and promise of Indigenous food sovereignty in western Canada* [Unpublished master's thesis]. University of Manitoba.

Martens, T. M., Dennis, M. K., & Hart, M. A. (2020). Feeding Indigenous people in Canada. *International Social Work*. https://doi.org/10.1177/0020872820916218

Massy, C. (2017). *Call of the reed warbler: A new agriculture a new earth*. University of Queensland Press.

Mayes, C. (2018). *Unsettling food politics: Agriculture, dispossession and sovereignty in Australia*. Rowman & Littlefield International.

McFarlane, P., & Schabus, N. (2017). *Whose land is it anyway? A manual for decolonization*. Federation of Post-Secondary Educators of BC. https://fpse.ca/decolonization_manual_whose_land_is_it_anyway

McMurtry, J. (1999). *The cancer stage of capitalism*. Pluto Press.

Mitchell, R., & Becker, J. (2019, January 18). *Bush food industry booms, but only 1 per cent is produced by Indigenous people*. ABC News. https://www.abc.net.au/news/rural/2019-01-19/low-indigenous-representation-in-bush-food-industry/10701986

Moreton-Robinson, A. (2015). *The white possessive: Property, power, and Indigenous sovereignty*. University of Minnesota Press.

Morgan, A. (2019, March 12). *Black people in Canada are not settlers*. Ricochet. https://ricochet.media/en/2538/black-people-in-canada-are-not-settlers

Morrison, D. (2011). Indigenous food sovereignty: A model for social learning. In H. Witman, A. A. Desmarais, & N. Wiebe (Eds.), *Food sovereignty in Canada: Creating just and sustainable food systems* (pp. 97-113). Fernwood.

Morrison, D., & Brynne, A. (2016). *Responsibilities and relationships: Decolonizing the BC Food Systems Network* [CFICE Project Report]. Indigenous Food Systems Network and BC Food Systems Network. https://www.indigenousfoodsystems.org/content/responsibility-and-relationships-decolonizing-bc-food-systems-network

Mosby, I. (2013). Administering colonial science: Nutrition research and human biomedical experimentation in Aboriginal communities and residential schools, 1942-1952. *Histoire Sociale/Social History, 46*(1), 145-172. https://www.muse.jhu.edu/article/512043

Pascoe, B. (2018). *Dark emu: Aboriginal Australia and the birth of agriculture*. Scribe Publications.

Pasternak, S. (2017). *Grounded authority: The Algonquins of Barriere Lake against the state*. University of Minnesota Press.

Patel, R. (2009). Food sovereignty. *The Journal of Peasant Studies*, *36*(3), 663-706. https://doi.org/10.1080/03066150903143079

PFPP [People's Food Policy Project] (2011). *Resetting the table: A people's food policy project*. Food Secure Canada. https://foodsecurecanada.org/resources-news/blogs-discussions/peoples-food-policy-project-launched

Phung, M. (2011). Are people of colour settlers too? In A. Mathur, J. Dewar, & M. DeGagné (Eds.), *Cultivating Canada: Reconciliation through the lens of cultural diversity* (pp. 289-298). Aboriginal Healing Foundation. http://www.ahf.ca/downloads/cultivating-canada-pdf.pdf

Regan, P. (2011). *Unsettling the settler within: Indian Residential Schools, truth telling, and reconciliation in Canada.* UBC Press.

Reynolds, K., Block, D., & Bradley, K. (2018). Food justice scholar-activism and activist-scholarship: Working beyond dichotomies to deepen social justice praxis. *ACME: An International E-Journal for Critical Geographies*, *17*(4), 988-998.

Rose, N. (2021). From the cancer stage of capitalism to the political principle of the common: The Social immune response of "food as commons". *International Journal of Health Policy and Management, x(x), 1-11*. https://doi.org/10.34172/ijhpm.2021.20

Rotz, S. (2017). 'They took our beads, it was a fair trade, get over it': Settler colonial logics, racial hierarchies and material dominance in Canadian agriculture. *Geoforum, 82*, 158-169. https://doi.org/10.1016/j.geoforum.2017.04.010

Rudolph, K. R., & McLachlan, S. M. (2013). Seeking Indigenous food sovereignty: Origins of and responses to the food crisis in northern Manitoba, Canada. *Local Environment, 18*(9), 1079-1098. https://doi.org/10.1080/13549839.2012.754741

Sbicca, J. (2015). Food labor, economic inequality, and the imperfect politics of process in the alternative food movement. *Agriculture and Human Values*, *32*(4), 675-687. https://doi.org/10.1007/s10460-015-9582-2

Simpson, A. (2014). *Mohawk interruptus: Political life across the borders of settler states*. Duke University Press

Sium, A., Desai, C., & Ritskes, E. (2012). Towards the 'tangible unknown': Decolonization and the Indigenous future. *Decolonization: Indigeneity, Education & Society, 1*(1), I-XIII. https://jps.library.utoronto.ca/index.php/des/article/view/18638

Slocum, R. (2007). Whiteness, space and alternative food practice. *Geoforum, 38*(3), 520-533. https://doi.org/10.1016/j.geoforum.2006.10.006

Smith, A. (2014). Native studies at the horizon of death: Theorizing ethnographic entrapment and settler self-reflexivity. In A. Simpson & A. Smith (Eds.), *Theorizing Native studies* (pp. 207-234). Duke University Press.

Smylie, J. (2021). *Our health counts Thunder Bay*. Anishnawbe Mushkiki. http://www.wellivinghouse.com/what-we-do/projects/our-health-counts-thunder-bay/

Snelgrove, C., Dhamoon, R. & Corntassel, J. (2014). Unsettling settler colonialism: The discourse and politics of settlers, and solidarity with Indigenous nations. *Decolonization: Indigeneity, Education & Society, 3*(2), 1-32.

Snyder, J. R. (2019). Should transitional justice promote forgiveness?: Insights from Guatemala's recovery of historical memory project. *Journal for Peace and Justice Studies*, *29*(1), 3-23.

Statistics Canada (2017). *Focus on geography series, 2016 census*. Statistics Canada Catalogue no. 98-404-X2016001. Ottawa, ON. https://www12.statcan.gc.ca/census-recensement/2016/as-sa/fogs-spg/Facts-CMA-Eng.cfm?TOPIC=9&LANG=Eng&GK=CMA&GC=595

Tilzey, M. (2019). Food democracy as 'radical' food sovereignty: Agrarian democracy and counter-hegemonic resistance to the neo-imperial food regime. *Politics and Governance, 7*(4), 202-213. http://dx.doi.org/10.17645/pag.v7i4.2091

Townsend, M., Phillips, R., & Aldous, D. (2009). "If the land is healthy… it makes the people healthy": The relationship between caring for Country and health for the Yorta Yorta Nation, Boonwurrung and Bangerang Tribes. *Health & Place*, *15*(1), 291-299.

Tuck, E. & Yang, K. W. (2012). Decolonization is not a metaphor. *Decolonization: Indigeneity, Education & Society, 1*(1), 1-40. https://jps.library.utoronto.ca/index.php/des/article/view/18630

Veracini, L. (2010). *Settler colonialism: A theoretical overview*. Palgrave Macmillan.

Wallace, R. (2013). *Merging fires: Grassroots peacebuilding between Indigenous and non-Indigenous Peoples.* Hignell Book Printing.

Whyte, K. (2018). Food sovereignty, justice and Indigenous Peoples: An essay on settler colonialism and collective continuance. In A. Barnhill, M. Budolfson, & T. Doggett (Eds.), *The Oxford handbook of food ethics* (pp. 345-366). Oxford University Press.

Winne, M. (2010). *Food rebels, guerrilla gardeners, and smart-cookin' mamas: Fighting back in an age of industrial agriculture*. Beacon Press.

Wolfe, P. (2006). Settler colonialism and the elimination of the native. *Journal of Genocide Research*, *8*(4), 387–409. https://doi.org/10.1080/14623520601056240

Vol. 8 No. 2, pp. 166-188 August 2021

Canadian Food Studies La Revue canadienne des études sur l'alimentation

Original Research Article

Growing with Lady Flower Gardens: Governance in a land-based initiative focused on building community, well-being and social equity through food

Ashley M. Roszko* and Mary A. Beckie

University of Alberta

Abstract

The local food sector has been gaining strong momentum in the province of Alberta but inclusiveness, social equity, and affordability remain issues of concern. Lady Flower Gardens (LFG) is a community-based initiative that is working to address these issues. Established in 2012 on private land in the northeast edge of Edmonton, Alberta, LFG provides opportunities for marginalized and disadvantaged individuals to develop skills in growing food for their own consumption, contribute a share of the harvest to the Edmonton Food Bank, as well as develop relationships and build community in a healthy and safe environment. LFG collaborates with a number of social service agencies and two universities in the development of this land-based, experiential learning model. In this case study we examine LFG's evolving governance structure, from a small informal grassroots initiative to a self-governed Part 9 non-profit company, registered with the provincial government. We gathered data from in-depth semi-structured interviews, site visits and documentary research. Our analysis uses a food justice lens and the Policy Arrangement Approach as adapted by Van der Jagt et al. (2017) to examine LFG's actors, partnerships and participation, resources, discourse, and rules. Investigating these dimensions of LFG provides insights into the complexity of factors, both internal and external, that have influenced the development and governance of this local food initiative and its ability to contribute to inclusiveness, social equity, and food justice.

*Corresponding author: ashleymariefischer@hotmail.com

DOI: 10.15353/cfs-rcea.v8i2.441
ISSN: 2292-3071

Our research reveals that LFG aligns strongly with FLEdGE's good food principles of food access and ecological resilience, while also intersecting with the principle of farmer livelihoods through the creation of new training opportunities.

Keywords: Local food initiative; urban agriculture; food justice; governance; Policy Arrangement Approach

Introduction

Edmonton, Alberta's provincial capital, is one of Canada's fastest growing cities (pop. 972,223) and the northernmost metropolis (pop. 1,461,182) in North America (City of Edmonton, 2019). Growth has been linked to high employment and income opportunities that, until recently, have been primarily driven by the province's oil and gas industry. Yet, despite decades of prosperity and what has been coined the "Alberta Advantage" (Precht, 2019), Alberta has "the largest gap between the rich and the poor of all provinces, with the richest 1% earning 46 times the poorest 10% of the provincial population" (Abt & Ngo, 2018, p. 2). The current historic low in the price of oil has further exacerbated this situation; Edmonton has the highest unemployment rate (8.1%) of any major city in Canada (Statistics Canada, 2020). As employment and income has gone down, food insecurity and demand for food assistance has spiked.

Edmonton was the first city in Canada to establish a food bank as a temporary relief program during the recession of the 1980s (Tarasuk, 2001). Nearly forty years later, demand for food assistance has not gone away. From 2015 to 2018 there was a 50% increase in demand (Edmonton Food Bank, 2018). The Food Bank also works with over 250 service agencies in the city to deliver approximately 500,000 meals and snacks monthly (Edmonton Food Bank, 2018). Those experiencing food insecurity are members of vulnerable or marginalized groups, such as low income and unemployed individuals, as well as people experiencing homelessness. Edmonton and other Canadian cities' increasing reliance on the emergency food sector run by non-profit organizations and volunteers is, in part, linked to government cuts to social assistance programs (Abt & Ngo, 2018). But it is also tied to inequalities and disparities associated with the dominant, globalized food system, a system where transnational corporations, productivity, and profits rule (Clapp, 2014).

In response to these and other problems associated with the conventional agri-food system, a local food movement has arisen that is being driven by a different set of values including re-embedding food in place, rebuilding local capacity, improving food quality and nutrition, and developing more socially just and ecologically sustainable food systems (Albrecht & Smithers, 2018). A wide array of local food initiatives (LFIs) have emerged, such as farmers markets, community supported agriculture, collective kitchens and community gardens. However, there are questions as to how far the local food movement has come in creating a more sustainable, inclusive, and socially just food system (Allen, 2010).

Finding ways to increase local food access, as well as inclusivity and democratic decision making in the governance of local food systems are topics of increasing interest to both scholars and practitioners.

Lady Flower Gardens (LFG), a community-based initiative located on the northeast edge of Edmonton, is working to address these issues. Established in 2012 on private land (15 acres cultivated, 75 acres old growth forest) by a retired market gardener and his partner (LFG co-directors), LFG provides opportunities for disadvantaged individuals to develop skills in growing food for their own consumption, contribute a share of the harvest to the Edmonton Food Bank, develop relationships, and build community in a healthy and safe environment (Lady Flower Gardens, n.d.). LFG partners with several Edmonton-based social service agencies who bring their community members to the garden, as well as academics and students from two universities in the ongoing development of this land-based, experiential learning model. The highly productive land, its location along the North Saskatchewan River, and market gardening expertise and resources of the landowners are critical assets for the success of the garden. Each year, LFG gardeners harvest approximately 50,000 lbs of vegetables for the Edmonton Food Bank and 20,000 lbs for themselves and their agencies.

As researchers affiliated with the Food Locally Embedded, Globally Engaged (FLEdGE) community-engaged research partnership, our interest in LFG focused initially on the contribution of this unique private land-based model to food justice. To further our analysis, we integrated a food justice lens with the Policy Arrangement Approach (PAA) adapted by Van der Jagt et al. (2017) to examine LFG's evolving governance structure, from a small informal grassroots initiative to a self-governed, Alberta registered Part 9 Company. This evolution in governance reflects LFG's goal to become more democratic and inclusive, so that participating agencies, institutions, and disadvantaged community members can contribute to decision making. However, being located on private land has generated barriers to fully achieving this. External municipal and provincial land development pressures have also impacted LFG. Using PAA enabled us to identify and understand the different dimensions of LFG's dynamic governance and their interconnections, which provided insight into the complexity of factors, both internal and external, that impact this LFI's ability to contribute to food justice. Our analysis of LFG also examined the alignment of this initiative with FLEdGE's good food principles of food access, ecological resilience, and farmer livelihoods.

Literature review

Food systems are dynamic socio-ecological systems that are, by definition, designed to meet human needs (Eakin et al., 2017).

While the dominant globalized and industrialized food system has prevailed due to its various strengths and far-reaching influence (Hendrickson & Heffernan, 2002), there is growing recognition of a number of associated and overlapping socio-economic, environmental, and health related problems (e.g., Intergovernmental Panel on Climate Change, 2019; Qualman et al., 2018). As part of the neoliberal economy, the globalized food system has "transformed people into individual, me-first consumers, as opposed to engaged citizens working to address food security needs for all" (Beischer & Corbett, 2016, p. 4). In response to the problems and vulnerabilities associated with this dominant model, an alternative food movement is calling for a re-localization and re-socialization of agri-food systems (Renting et al., 2003) that are "conditioned by local community norms, values, [and] culture" (Lyson et al., 1995, p. 108). The context-specific nature of these re-localized food systems has shaped the emergence of a variety of LFIs that are attempting to re-establish relationships between production and consumption, build local capacity through collaboration, and achieve broader sustainable development goals such as environmental protection, and social and economic equity (Albrecht & Smithers, 2018; Pisano et al., 2011).

Situated within Edmonton's urban boundaries, LFG can be categorized as a community garden, which are an important part of cities' physical and cultural landscapes (Mougeot, 2006) and can play an important role in protecting land for food production in and around cities (Van der Jagt et al., 2017). Although critics of community gardens label them as reformist for failing to significantly challenge the dominant food system, others see their transformative potential through the lens of the "politics of hope and possibility" (Larder et al., 2014, p. 57). In addition to providing a space for food production and physical health, community gardens have been associated with social and related mental health benefits, including relaxation, recreation, community networking, relationship building, and generating a sense of place and belonging (Beckie & Bogdan, 2010; Birky & Strom, 2013), all of which contribute to social resilience (Van der Jagt et al., 2017). Community gardens can be a training ground for self-sufficiency, by teaching context specific food growing knowledge and skills (Beckie & Bogdan, 2010; Wakefield et al., 2012), and for generating positive environmental values through learning about and actively engaging with local ecosystems (Bendt et al., 2013; Stocker & Barnett, 1998). Some community gardens involve or donate to social service organizations serving low-income, disadvantaged, and food-insecure populations (Furness & Gallaher, 2018). Engagement of all actors and the establishment of clear roles and guidelines have been shown to be critical to the use, effectiveness, and maintenance of a community garden (Bendt et al., 2013; Van der Jagt et al., 2017). Furthermore, Van der Jagt et al. (2017) found that having "a degree of hierarchical organization with an elected board of representatives responsible for administrative tasks, decision-making and regular meetings to discuss and plan activities" aids good governance of gardens (p. 271). These authors also identified the importance of garden managers' being open-minded and having a receptive management style that is approachable and responsive.

Although community gardens and other LFIs aim, in principle, to promote a new set of values and practices that advance participatory and equitable food systems, in practice "they do not automatically move us in the direction of greater social justice" (Allen, 2010, p. 306). Food justice is a critical concept and dimension of the local food movement that calls attention to issues of inclusiveness and equity through greater control over food production and consumption by those who have been marginalized by the mainstream agri-food system (Eakin et al., 2017; Gottlieb & Joshi, 2010). Cadieux and Slocum (2015) identify food justice as an opportunity for transformative change in four key areas: equity, exchange, land, and labour. Conceptualizing food as a right under a food justice lens offers a framework to ensure that vulnerable groups have a "central and fundamental role in tackling food injustice, from the ground up" (Kneafsey et al., 2017, p. 621). Allen (2010) links food equity not only to access to resources but also to decision making processes (p. 295). Equitable and democratic food governance requires the inclusion of a broad range of actors, dialogue, social learning, collective action, and collaboration (e.g., Hospes & Brons, 2016; Sonnino, 2019), and needs to be understood within the broader socio-political context (Kirwan et al., 2017). Identifying and analyzing food governance models that promote food justice values has become a growing area of research among food scholars.

Governance has various definitions depending on the context, but in general includes the ways initiatives are organized and operate, the norms, rules, instruments, and institutions used in decision making, and the interactions of diverse actors to make decisions to achieve certain goals (Arts et al., 2006; Hospes & Brons, 2016). 'Good governance' is characterized by transparency, accountability, and inclusiveness (Lawrence et al., 2013). While a variety of governance models exist to promote these qualities, some are more effective than others. Various analytical frameworks have been developed to describe and understand governance structures and processes. Andrée et al. (2019), writing about food system governance and civil society organizations, place the main categories of governance arrangements —multistakeholder, co-governance, self-governance — along a continuum of engagement and examine specific cases with respect to power, reflecting on the ways power is enacted, "from influencing, to sharing, claiming, and exerting power within their own contexts and within broader social, economic and ecological systems" (p. 19). In this book, one of the chapters focuses on the case study of YYC Growers and Distributors Cooperative in Calgary, Alberta. This case study illustrates how a group of urban and rural growers created a discursive space in order to educate the public and government about the value of local food, provide increased access, support food justice initiatives, and influence policy changes (Beckie & Bacon, 2019). To do so, the growers leveraged both discursive and structural power (p. 94). Power, as Andrée et al. contend, is inextricably linked to governance and is part of its dynamic process of change and evolution.

In analyzing the governance arrangements of communal gardens in Europe and their ability to foster social resilience, Van der Jagt et al. (2017) adapted the Policy Arrangement Approach (PAA) (Arts et al., 2006; van Tatenhove et al., 2000).

PAA has its roots in the field of environmental policy and was designed for understanding stability and change in decision making processes (Arts et al., 2006); the use of PAA in analyzing agriculture and food governance has been limited to date (see also Contesse et al., 2018; Liefferink, 2006). Van der Jagt et al. (2017) utilized this approach to understand governance of communal gardens through the four dimensions distinguished in PAA — actors, rules, resources, discourse — as well as the additional dimension of partnerships and participation (Lawrence et al., 2013). In PAA, actors refers to both individuals and organizations directly involved with or influencing governance, their roles, motivations, and relationships among them. Discourse refers to the norms and values of the individuals and organizations involved, as well as definition of problems, objectives, approaches to solutions, and success in achieving these. Rules provide the structure under which social cooperation takes place, and encompass both formal and informal rules. Resources refer to knowledge, skills, and material elements. It should be noted that all dimensions distinguished by PAA are identified as overlapping and interrelated; changes to one dimension will impact other dimensions.

Changes to governance arrangements can come about through reflexive processes, which create opportunities for actors to reflect on assumptions, structures, and processes, "scrutinize" current patterns, learn together, and make collective decisions for positive change (Hendriks & Grin 2007, p. 333). Hence, reflexivity can promote experimentation, relational learning, and the development of tailor-made governance solutions (Duncan, 2015; Sonnino, 2019). Reflexivity has been an important process resulting in changes to LFG's governance, as the initiative works towards greater inclusiveness in its governance structures and processes as part of its mandate for food justice.

Methods

In this qualitative case study (Yin, 2017), we gathered data from in-depth semi-structured interviews (n=18), site visits to the garden and observations during LFG governance meetings, as well as documentary research. Interviews were conducted using purposeful sampling with agency representatives and community members, volunteers, post-secondary representatives, interns, LFG directors, and landowners. Site visits to the garden and observations during fall and spring semi-annual governance meetings with participating organizations occurred from 2016 to 2019. These activities helped us to gain an understanding of the way in which the garden functioned on a daily basis, as well as the roles of and relationships among different actors. Documentary research included a literature review of scholarship on LFIs, community gardens, food justice and governance, as well as an examination of LFG's website (values, mission, participating agencies), and online and printed documents and resources (rules, scheduling, reports) prepared by LFG and university researchers.

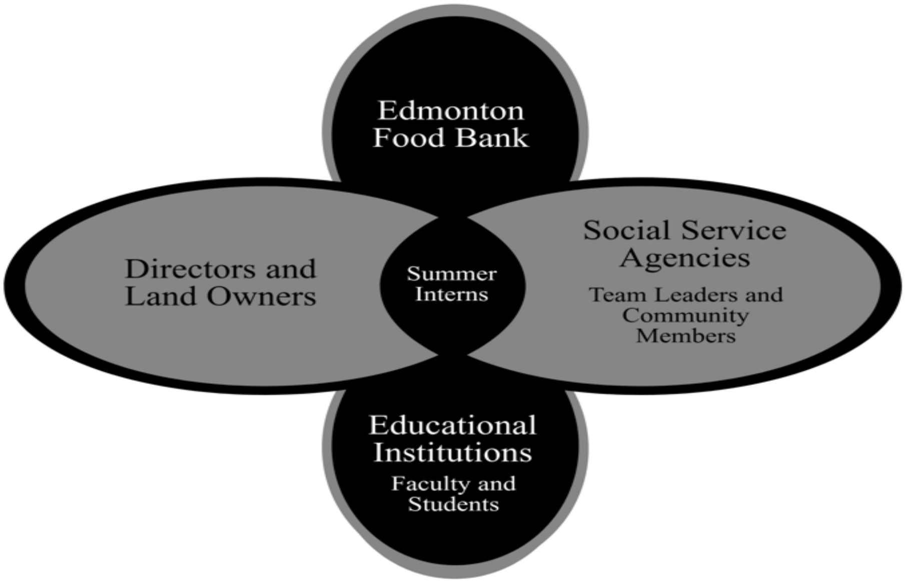
Our analysis integrated a food justice lens with the PAA adapted by Van der Jagt et al. (2017) to identify and examine the different dimensions of LFG's dynamic governance including actors, partnerships and participation, resources, discourse, and rules. In our analysis, we grouped actors, partnerships and participation together, as certain actors (social service agencies, academic institutions) are involved with LFG through formal partnerships.

Findings

Actors, partnerships and participation

There is a wide range of actors and organizations participating in LFG, including the directors (Kelly and Doug), summer interns, social service agencies and their community members, the Edmonton Food Bank, and post-secondary institutions. Each actor and organization brings a different set of relationships, skills, knowledge, needs, and resources to the garden. Understanding the social relations between actors provides insight into how decisions are made and implemented and what factors facilitate or hinder these processes. Figure 1 identifies the different types of actors involved with LFG and the relationships among them.

Figure 1: Lady Flower Gardens Actors and Relationships


Edmonton Food Bank
Directors and Land Owners
Summer Interns
Social Service Agencies
Team Leaders and Community Members
Educational Institutions
Faculty and Students

Directors

In addition to jointly initiating and overseeing the development of LFG, each co-director has additional roles, which some interviewees described as "complementary" and critical to the success of LFG. Doug, as a retired market gardener, has extensive farming experience and instructs and assists the gardeners with planting, weeding, and harvesting. Kelly has no previous gardening experience, but has worked with people with mental health and addiction issues; these experiences led her to envision a place where vulnerable and marginalized individuals could participate in collective food growing and the natural environment. In LFG, Kelly focuses on building connections, communicating, and coordinating with participating agencies and institutions, and the summer interns. Kelly has also been the key driver of changes to the governance structure of LFG.

Social service agencies and community members

Fourteen social service agencies[1], providing a variety of resources and services to disadvantaged populations in Edmonton, participated in LFG in 2019, but this number varies somewhat from year to year. These agencies are responsible for insuring and transporting their community members and staff to the garden. Partnerships are formalized between LFG and individual social service agencies through yearly land-use agreements (see Rules). Between 150 and 200 community members affiliated with the different agencies participate in LFG on a weekly basis. They come to the garden for a variety of reasons, including the opportunity to enjoy fresh air, meet new people, receive fresh vegetables, and learn new gardening skills. One community member stated:

> I feel like [I am] eating more veggies and doing more exercise and breathing better air... slowly you feel more energy and healthier, and then you know in that time you go there and get some vegetables and then ... you don't have to go shopping that much. So, it's all [a] benefit... Healthier mentally and physically.

Social service agency staff members added: "the most common experience I've heard is... once you leave the city you feel the sort of wash of relief over you," and coming regularly gives community members "a place where people feel a sense of belonging or a sense of value or contribution… It's a [place for] positive social interaction."

---

[1] The Mustard Seed; Bissell Centre; Boyle Street Community Services; Stan Daniel's Indigenous Healing Centre, Corrections Canada; Alberta Health Services Mental Health and Addictions Youth and Adults; Recovery Acres; John Howard Society; Multicultural Health Brokers Cooperative; EXCEL Society; Emmanuel Home; Ambrose Place; Capital Care; Winnifred Steward Society; Edmonton Food Bank

Being involved in LFG and contributing to others in need has also had broader impacts on participants, as observed by an agency staff member: "I do think that it may have motivated some of them to get more involved in their communities and in volunteering, through participation, that element of giving back and donating, as opposed to being someone who receives."

Summer interns

Summer interns (one or two university students or recent graduates) are hired to assist with on-the-ground, day-to-day management of the garden, as well as organize special events (e.g., fundraise, forest and medicinal plant tours) and develop resources. One summer intern who participated in LFG for two years described her motivation for taking part in LFG:

> It is working with people, especially people from marginalized or disadvantaged communities, but in a way that's not just charity… what drew me back is the relationships that I've built with people and seeing the difference that it makes. I think the vision of it is really cool and moving forward [includes] more education and more empowerment.

Summer interns and the directors work closely to align the daily activities with the overall direction and goals of LFG, discuss what works well, what challenges arise, and how to address these. The interns also communicate information and concerns from the directors to the member agencies and vice versa. The interns have up to date information about garden activities (i.e. where to weed and what to harvest) that they share with partner agencies, whereas agency staff have experience working with their community members and are trained in counselling, de-escalation, first aid, and other necessary skills that are crucial to working with their community members.

Post-secondary institutions

LFG has also partnered with The King's University and the University of Alberta (faculties of: Extension, Arts, Agriculture, Land and Environmental Sciences (ALES), Medicine and Dentistry). Students and academics are involved in research, evaluation, and knowledge mobilization for LFG, as well as in gardening activities. For example, undergraduate students from The King's University developed communication materials for LFG as part of a class project, and students from the Faculty of Medicine and Dentistry are developing information about traditional medicines found in the old growth forest.

These connections with post-secondary institutions are also key to future plans for expanding educational opportunities at LFG to a wider range of participants, using food as a platform for transformative learning.

External agencies

Municipal and provincial governments do not play a role in the governance of LFG but have exerted significant influence as a result of development plans for the area. LFG is located in Edmonton's Urban Growth Area, which has been designated for future residential and commercial growth (Beckie et al, 2013). There are also plans for a major provincial highway to be built in the area, which was initially slated to run through the middle of LFG; however, significant lobbying by community members and supportive organizations, such as the Greater Edmonton Alliance (GEA)[2], resulted in revised plans to divert the highway elsewhere. To protect the garden and forest from future development, LFG directors went through a long and costly process of securing conservation easements on the property (New Jubilee, Evelyn's Acres), registered through the Edmonton Area Land Trust (EALT)[3] (Delitala, 2019).

Resources

Resources essential to the development and ongoing success of LFG include the land and equipment, gardening expertise, private donations and grant funding, as well as skills in community organizing and networking. LFG consists of 15 acres of cultivated land, a yurt for community gatherings and events, and 75 acres of old growth forest along the North Saskatchewan River. In addition to LFG's location along the river, which makes irrigation possible, it also benefits from having some of the most productive soils in Canada (Classes 1, 2, 3) and a unique microclimate that creates a growing season similar to that of southern parts of the province (HB Lanarc Consultants, 2012). This combination of assets, along with the vegetable production expertise, machinery and equipment of the land owner and co-director of LFG and the number of volunteers, enables a high level of production. The majority of this produce is donated to the Edmonton Food Bank and the rest is given to community gardeners and their agencies.

---

[2] The Greater Edmonton Alliance (GEA) is an alliance of faith, labor, health education and community organizations dedicated to building a base of civic leaders to effectively stand for change they want to see in their communities. (www.greateredmontonalliance.org)

[3] The Edmonton and Area Land Trust works to protect natural areas and conserve biodiversity. (www.ealt.ca)

The 75 acres of old growth forest, one of the largest remaining tracts within the city limits, is home to a wide range of flora and fauna and is also an important wildlife corridor. Gardeners have supervised access to the forest where they can enjoy and learn about the natural environment, including identification and use of traditional Indigenous medicinal plants, which are abundant in the forest.

Until recently, First Nations ceremonies were allowed to be conducted in the forest, but safety regulations and the need for costly insurance have curtailed these activities.

Doug's market garden expertise has been a critical resource. LFG is part of a farm that has been in Doug's family since 1958. The largest proportion of the farm continues to be operated as a market garden by Doug's daughter and family, who have helped with LFG land preparation and seeding, and provided access to farming equipment and irrigation infrastructure. Kelly's ability to build connections and partner with other organizations in developing LFG have also been essential to the success of the initiative. Her training in leadership and democratic governance was initiated during a week-long Industrial Areas Foundation workshop in Seattle. She also seeks ongoing advice and facilitation support from provincial government community development practitioners, who provide this service free of charge, and from members of GEA. LFG operates entirely on government and foundation grants, and private donations. The directors and summer students spend a significant amount of time securing funding every year. Fundraisers have included musical events and silent auctions held in the yurt during the summer. In order to increase access to funding, a decision was made to register LFG as a Part 9 Company, which is described in more detail in Discourse.

Discourse

In the Policy Arrangement Approach, discourse refers to "the views and narratives of the actors involved, in terms of norms and values, definitions of problems and approaches to solutions" (Arts et al., 2006, p. 99), as well as the organization's objectives and how or if it is accomplishing these (Van der Jagt et al., 2017). Food justice values are central to the establishment and ongoing development of LFG, and the involvement of different actors and organizations. The primary objective of LFG is to improve the well-being of disadvantaged people living in Edmonton by providing them with opportunities for experiential learning and to grow their own fresh produce, contribute food to others in need, and build community through "learning to live sustainably with the land and each other" (Lady Flower Garden, n.d.). A food bank employee commented on the LFG model:

> I quite enjoy their model because it really is about people taking responsibility for their own food. They're not waiting for somebody else to give it to them. They're not dependent on purchasing it from the food industry. They're actively engaged in the food production piece. And it's people that normally couldn't have a garden or participate, so the building of this community is really important.

A future goal is to provide more opportunities for community members to build capacity in other ways, such as decision-making. As a short-term initiative, some community members are being trained to give tours of the garden and forest to members of the public. In addition to enabling the community members to develop skills and gain confidence in communicating with the public, it is also hoped that this contributes to their sense of belonging at LFG and could lead to their involvement in decision making.

The LFG website defines their approach as a "specialized collaboration" that involves organizations and individuals that actively practice social and environmental justice and place "the vulnerable in the center of our community" (Lady Flower Garden, n.d.). This alignment was confirmed by an agency staff member: "our mission is building community, growing hope and supporting change. And through all those three mantras, Lady Flower Gardens fits perfectly." Similarly, a faculty member of The King's University stated:

> [LFG is] very focused on social justice. [Including] the idea of bringing renewal to relationships, so there's lots of things that connect in terms of work with Aboriginal, First Nations groups, and also renewal and reconciliation with… the environment… it's quite an excellent connection to what we're trying to do with our student body.

Inclusivity and democratic decision making are identified by the directors as important values and goals for LFG and over the past eight years, changes in governance processes reflect a move in this direction. During the establishment and growth phase of LFG (2012 - 2015), Kelly and Doug made all decisions and there were no formal structures or processes in place for participating organizations to provide input. In 2016, partnerships with agencies were formalized through land-use agreements and a list of rules for participation was developed (see Rules). During 2016 and 2017, students from The King's University were asked by the directors to conduct interviews with member agencies' staff, identifying what was working well and what improvements could be made. This evolved into the establishment of spring and fall meetings which enabled representatives of partnering organizations to participate in examining the successes and challenges they encountered, and collectively identify goals and strategies for the upcoming season. Despite having these processes in place, there was growing recognition by the directors and partnering organizations that LFG needed to move to a more formalized governance structure that could also increase their eligibility for grants.

To that end, in January 2018 LFG became a self-governed Part 9 Company[4] registered under the government of Alberta's Companies Act. This is a classification unique to Alberta that confers non-profit status and requires that profits or dividends are not distributed to members. What distinguishes Part 9 companies from other non-profits are significant holdings, which, in the case of LFG, is the highly valued land it is situated on. This type of entity does not require an elected board; instead, a seven-member advisory committee has been established consisting of agency and institutional representatives and others with specialized expertise, with Kelly and Doug remaining as directors.

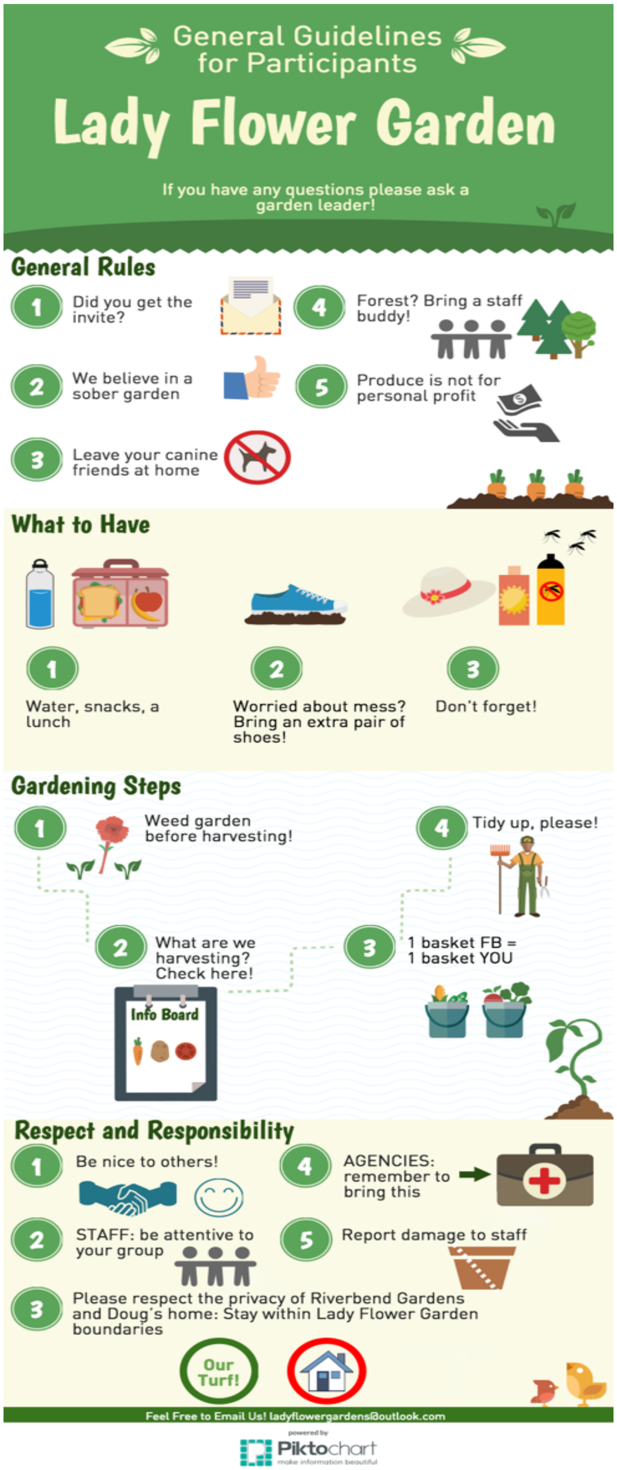
Rules

There are specific rules and structures that frame and guide LFG activities. LFG only operates during the growing season (April to September), with participating agencies attending the garden during weekdays. Each spring, individual agencies negotiate a "land-use agreement" with the directors that guide the activities and use of the land (Lady Flower Garden, n.d.). Each agreement is unique to agencies' needs; however, all agreements must fulfill at least one of LFG's objectives — experiential/hands-on learning, collaboration, community building — and contribute to LFG's main goal of "learning to live with the land and each other" (Lady Flower Gardens, n.d.). A complex weekly schedule (mornings and afternoons, five days a week) is then developed in consultation with the agencies and posted on the website. The community gardeners are under the guidance of the agencies' team leaders, who must undergo a garden orientation at the beginning of the season to ensure rules and codes of conduct are understood. This includes ensuring that community members respect each other and all staff, as well as the equipment, the garden, and the forest. Figure 2 provides an illustration of LFG's guiding rules, which are posted at the garden. Despite having these rules, some interviewees commented that LFG still operates quite informally on a day-to-day basis, encouraging participants to understand and follow the guiding rules, but giving room to the agencies and community members to take ownership of their work as valued garden participants. LFG emphasizes the importance of equal participation and collaboration in maintaining and harvesting the garden by all involved. Social service agency staff appreciate that LFG strives for this sense of equality: "it's just really great to interact with people in a way that's not so much… service provider and client… It's just gardeners… we're all doing the same thing." During each session, participants first partake in weeding, then harvesting vegetables for the Edmonton Food Bank or other emergency food providers, and finally harvesting for themselves.

---

[4] "Part 9 companies are formed to promote art, science, religion, charity or other similar endeavours, or they may be formed solely to promote recreation for their members. Part 9 companies are regulated by the Companies Act." (Municipal Affairs, Government of Alberta, n.d) http://www.municipalaffairs.gov.ab.ca/documents/Governance%20Options%20Final.pdf

Figure 2: Lady Flower Gardens Rules and Guidelines for Participants



General Guidelines for Participants

Lady Flower Garden

If you have any questions please ask a garden leader!

General Rules

1. Did you get the invite?
2. We believe in a sober garden
3. Leave your canine friends at home
4. Forest? Bring a staff buddy!
5. Produce is not for personal profit

What to Have

1. Water, snacks, a lunch
2. Worried about mess? Bring an extra pair of shoes!
3. Don't forget!

Gardening Steps

1. Weed garden before harvesting!
2. What are we harvesting? Check here!
3. 1 basket FB = 1 basket YOU
4. Tidy up, please!

Respect and Responsibility

1. Be nice to others!
2. STAFF: be attentive to your group
3. Please respect the privacy of Riverbend Gardens and Doug's home: Stay within Lady Flower Garden boundaries
4. AGENCIES: remember to bring this
5. Report damage to staff

Feel Free to Email Us! ladyflowergardens@outlook.com

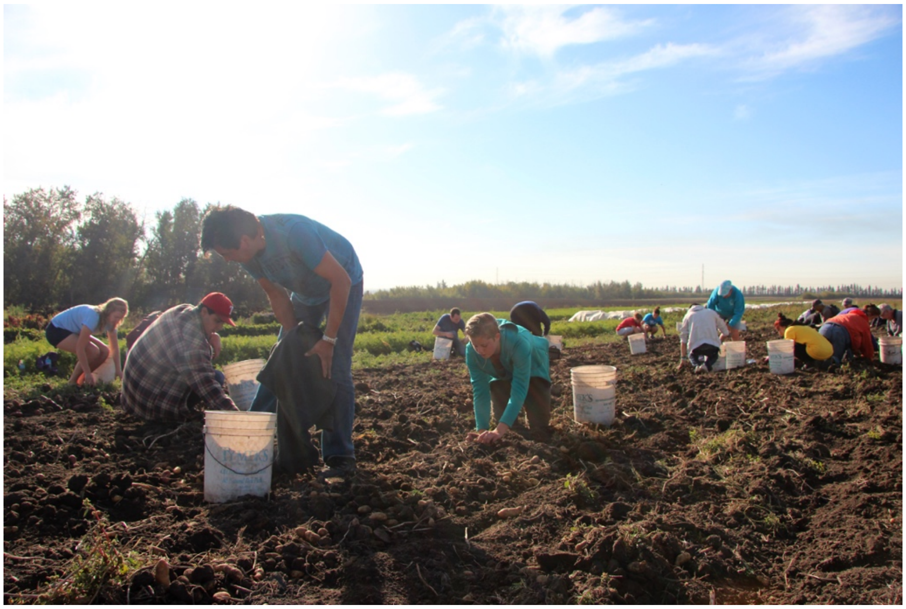
powered by Piktochart make information beautiful

Discussion

PAA provides a structured framework for examining governance, which can be simply defined as the way in which actors work together to address problems and achieve goals (Arts et al., 2006; Hospes & Brons, 2016). This approach distinguishes four key dimensions of governance, to which Van der Jagt et al. (2017) add partnership and participation. In our analysis of LFG, we identified *discourse* (*why*) as central and pivotal to the initiative's establishment and ongoing development. Discourse is also influential in shaping the other dimensions: *actors* (*who*) involved, their motivation for participating and the relations among them; *resources* (*what*) needed to carry out the activities; and *rules* (*how*) which provide a structure for social cooperation. Although PAA is useful as a tool for understanding and describing these dimensions, PAA also emphasizes the interconnectedness of these dimensions and how they affect stability and change. In the discussion that follows, we compare our analysis of LFG to other findings in the literature.

LFG's discourse, the "norms and values, definitions of problems and approaches to solutions" (Arts et al., 2006, p. 99), revolves around food justice for Edmonton's marginalized and disadvantaged community members. While the local food movement has been criticized for the extent of its effort to provide equitable opportunities and benefits to those experiencing social, economic, and geographic disparities (e.g., Allen, 2010), community members are core to LFG's mandate and operation. Consistent with other examples in the literature (e.g., Beckie & Bogdan, 2010; Beischer & Corbett, 2016; Eakin et al., 2017), the growing and harvesting of food at LFG provides opportunities to improve physical and mental well-being for disadvantaged community members through experiential learning, access to fresh produce, collaboration and sharing resources with others. In this way, LFG aligns with FLEdGE's good food principles of food access and farmer livelihoods, as diverse communities are provided with access to healthy and nutritious food, while also learning about food production and engaging in the process of food growing.

Figure 3: Participants Gardening at Lady Flower Gardens



Also similar to other community gardens, a significant portion of the produce harvested at LFG is donated to a social service agency (Furness & Gallaher, 2018). What distinguishes LFG from many other donation-model community gardens is that the gardeners harvest produce for others (Food Bank recipients) before harvesting for themselves, which creates a space for those that receive food donations to provide for others in need. Typically, those most likely to volunteer for food security initiatives are members of privileged classes (Beischer & Corbett, 2016). By contributing to the food security of others, LFG community members gain a sense of pride and develop active citizenship, which also influences their involvement in other community activities. LFG emphasizes collaboration and solidarity among all those involved in the garden, as work is done together, side-by-side. Some interviewees commented that treating everyone as "equals" helps build trust and respect. Such collaborative community involvement and capacity building helps to forge new exchanges between diverse community members, which is crucial in promoting a food justice approach (Cadieux & Slocum, 2015).

LFG connects community members to the land through hands-on learning in the garden and old growth forest, which is an effective way to engage participants in understanding natural processes (Bendt et al., 2013) and to promote positive values such as ecological well-being and sustainability (Cadieux & Slocum, 2015; Stocker & Barnett, 1998). Furthermore, by establishing conservation easements on the land, LFG is protecting prime agricultural land and a biodiverse forest; hence, this initiative also aligns strongly with the FLEdGE good food principle of ecological resilience. This, combined with improving food access, moves LFG beyond a food security initiative to a more transformational model of food and ecological justice (Cadieux & Slocum, 2015).

LFG's discourse influences which organizations are involved in the initiative. LFG only partners with organizations that align with its social and environmental justice values, goals, and objectives (LFG, n.d.). Shared principles are key to strong partnerships and collaborative governance in LFIs (Lockwood et al., 2010; Van der Jagt et al., 2017). Formal agreements with social service agencies and post-secondary institutions also aid in structuring and strengthening these partnerships. Furthermore, strategically building alliances with other external organizations and institutions has enabled LFG to create greater agency and momentum for change. For example, LFG is a member organization of GEA, which organized citizens to advocate for the protection of agricultural land in northeast Edmonton (Beckie et al., 2013). LFG also has a formal and collaborative relationship with the EALT which guarantees the protection of agricultural land and the forest. Through these relationships, LFG has claimed and created spaces (Andrée et al., 2019, p. 29) for strategically and actively pursuing its values and mission, similar to the work of YYC Growers and Distributors Cooperative in Calgary (Beckie & Bacon, 2019). Although municipal and provincial governments are not involved in the governance of LFG, they have exerted an influence on the development of the initiative. Hence, examination of the governance of LFIs also needs to take into account the broader socio-political context (Kirwan et al., 2017).

A diversity of actors is crucial to the operation of LFG, which is similar to other community gardens and is an important component of the PAA (Van der Jagt et al., 2017). LFG directors aim to increase equality and inclusivity for all actors; however power imbalances do exist, since some actors have greater decision making power over others (Gaarde, 2017). While opportunities for partnering agencies and institutions to contribute to LFG's decision making have increased through reflexive processes (Hendriks & Grin, 2007), final decisions still rest with the directors. The transition of LFG from an informal grass-roots initiative to a government registered and self-governed Part 9 Company allows LFG to function like a non-profit organization in some ways (ie. profits or dividends are not distributed to members, expanded eligibility for funding), but it does not require an elected voting board. Instead, a board of advisors provides input on decisions, which the directors ultimately make. This power imbalance was acknowledged by the participating agencies but was not viewed negatively, as the governance arrangement is seen to be effective in meeting objectives and the values they support. LFG directors are fully aware of the power and hierarchical dynamics in the organization, and the disconnect between these and the values of food justice, which extend beyond improved access to nutritious food to inclusive and democratic decision making processes (Allen, 2010). In practicing food justice, however, LFG directors continually examine how power is distributed within the organization and try to find ways to promote equality and bring such elements into conversations with all LFG partners (Cadieux & Slocum, 2015). For the time being, however, it remains a self-governing entity that may not fully realize a collaborative governance model until the boundaries imposed by the directors are removed.

Actors such as Kelly and Doug are often characterized as leaders or champions who identify and address food system issues by generating "solutions that respond to the local situation and the interests and values of the communities involved" (Seyfang & Smith, 2007, p. 585; see also Moragues-Faus & Morgan, 2015). These actors build connections and relationships with organizations and community members, which allow for an initiative to have a broader reach and influence (Nelson et al., 2013). Kelly, in particular, can be described as having a convergent personality, someone capable of bringing people together. Paradoxically, she describes herself as a "control freak" who wants to make sure that LFG stays true to its values and objectives. Without Doug and Kelly as the champions of LFG, and their ability and determination to access resources and engage others in this initiative, LFG would not have gained the traction it has in addressing issues of food justice, social resilience, and community building.

While their time and dedication has been essential to the establishment and ongoing success of LFG, Kelly and Doug have also purposely maintained a degree of control that enables them to achieve a work-life balance they are comfortable with. As with other champions who play a crucial and demanding role in LFIs, the sustainability of the organization and work could be at risk due to their burnout and/or their desire to no longer be involved. For these reasons, Kelly and Doug are taking steps to secure a future for LFG beyond their involvement, by establishing conservation easements on the land and by developing a succession plan that may involve an educational institution taking over and expanding LFG as a land-and food-based experiential learning and living centre. The intent is to continue to prioritize the needs and involvement of disadvantaged people.

Conclusion

LFG is a local food initiative situated on private land in the northeast edge of Edmonton, Alberta, that provides opportunities for marginalized and disadvantaged individuals to develop skills in growing food and build relationships and community in a healthy and biodiverse environment. Through LFG, community members become engaged citizens by also working collectively to address food security for others through their contributions to the Edmonton Food Bank. Participants also have opportunities to access and learn about the old growth forest, which is part of LFG and an important resource for biodiversity within Edmonton. Hence, LFG plays a vital and valuable role in re-connecting vulnerable communities with food, community, and place. In this way, LFG aligns strongly with FLEdGE's good food principles of food access and ecological resilience, while also intersecting with the principle of farmer livelihoods through creating training opportunities and building capacity.

In this qualitative case study, we integrated a food justice lens with PAA as adapted by Van der Jagt et al. (2017) to investigate LFG's evolving governance through an examination of the dimensions distinguished in this approach: actors, partnership, and participation (*who*), discourse (*why*), resources (*what*) and rules (*how*). In addition to providing a structural framework for analyzing these individual components of governance, PAA's emphasis on their interrelatedness led us to also examine how stability and change occurs. We identified food justice values and practices, LFG's 'discourse', as central to the establishment of the initiative and its ongoing development, and to shaping the other governance dimensions. LFG implements a reflexive governance approach in evaluating the alignment of current practices and policies with their values and goals, and in stimulating changes in governance structures and processes.

The establishment and vision for LFG by two individuals, its location on privately owned land, and its current structure as a Part 9 Company has thus far limited the decision making power of partnering agencies and institutions, which has prevented a transition towards true collaborative governance. All actors acknowledge this power imbalance, but this governance arrangement is seen as effective, as it meets the values and objectives that all participants support. Even though final decisions still rest with the directors, the succession plan they are in the process of creating would transition the stewardship of LFG to a public institution, which would enable the development of a more inclusive and democratic governance arrangement.

Acknowledgements: We would like to thank the reviewers and guest editor for their helpful suggestions for making improvements to this article. We would also like to acknowledge Michelle Biggs for her research assistance during the first year of this study. This research was supported by the FLEdGE research network and the Social Sciences and Humanities Research Council of Canada.

References

Abt, H., & Ngo, S. (2018). *One in six is too many: Alberta child poverty update*. Edmonton Social Planning Council. https://campaign2000.ca/wp-content/uploads/2018/11/AlbertaPovertyReportNov2018.pdf

Albrecht, C., & Smithers, J. (2018). Reconnecting through local food initiatives? Purpose, practice and conceptions of 'value.' *Agriculture and Human Values, 35*(1), 67–81. https://doi.org/10.1007/s10460-017-9797-5

Allen, P. (2010). Realizing justice in local food systems. *Cambridge Journal of Regions, Economy and Society, 3*(2), 295–308. https://doi.org/10.1093/cjres/rsq015

Andrée, P., Clark, J. K., Levkoe, C., & Lowitt, K. (Eds.). (2019). *Civil society and social movements in food system governance*. Routledge.

Arts, B., Leroy, P., & van Tatenhove, J. (2006). Political modernisation and policy arrangements: A framework for understanding environmental policy change. *Public Organization Review, 6*(2), 93–106. https://doi.org/10.1007/s11115-006-0001-4

Beckie, M., & Bacon, E. (2019). Catalyzing change in local food system governance in Calgary, Alberta: The role of YYC growers and distributors cooperative. In P. Andrée, J. K. Clark, C. Levkoe, & K. Lowitt (Eds.), *Civil society and social movements in food system governance* (pp. 81–100). Routledge.

Beckie, M. A., & Bogdan, E. (2010). Planting roots: Urban agriculture for senior immigrants. *Journal of Agriculture, Food Systems, and Community Development, 1*(2), 77–89. https://doi.org/10.5304/jafscd.2010.012.004

Beckie, M. A., Hanson, L., & Schrader, D. (2013). Farms or freeways? Citizen engagement and municipal governance in Edmonton's food and agriculture strategy development. *Journal of Agriculture, Food Systems, and Community Development, 4*(1), 15–31. https://doi.org/10.5304/jafscd.2013.041.004

Beischer, A. & Corbett, J. (2016). Food justice as a response to hunger on our Canadian foodscapes: How a community-gleaning project is addressing depoliticized food insecurity through a food justice praxis. *HAL Archives*, halshs-01507266. https://halshs.archives-ouvertes.fr/halshs-01507266/document

Bendt, P., Barthel, S., & Colding, J. (2013). Civic greening and environmental learning inpublic-access community gardens in Berlin. *Landscape and Urban Planning, 109*(1), 18–30. https://doi.org/10.1016/j.landurbplan.2012.10.003

Birky, J., & Strom, E. (2013). Urban perennials: How diversification has created asustainable community garden movement in the United States. *Urban Geography, 34*(8), 1193–1216. https://doi.org/10.1080/02723638.2013.784086

Cadieux, K. V., & Slocum, R. (2015). What does it mean to *do* food justice? *Journal of Political Ecology, 22*(1), 1–26, https://doi.org/10.2458/v22i1.21076

City of Edmonton. (2019). *2019 municipal census results.* https://www.edmonton.ca/city_government/facts_figures/municipal-census-results.aspx

Clapp, J. (2014). Financialization, distance and global food politics. *The Journal of Peasant Studies, 41*(5), 797–814. https://doi.org/10.1080/03066150.2013.875536

Contesse, M., van Vliet, B. & Lenhart, J. (2018). Is urban agriculture urban green space? A comparison of policy arrangements for urban green space and urban agriculture in Santiago de Chile. *Land Use Policy, 71*, 566-577. https://doi.org/10.1016/j.landusepol.2017.11.006

Delitala, A. (2019, May 26). Edmonton farmer seeks conservation easement to secure land's future, prevent development. *Edmonton Area Land Trust.* https://www.ealt.ca/ealt-in-the-news/global-visser?rq=visser

Duncan, J. (2015). "Greening" global food governance. *Canadian Food Studies, 2*(2), 335–344. https://doi.org/10.15353/cfs-rcea.v2i2.104

Eakin, H., Connors, J. P., Wharton, C., Bertmann, F., Xiong, A., Stoltzfus, J. (2017). Identifying attributes of food system sustainability: Emerging themes and consensus. *Agriculture and Human Values, 34*(3), 757–773. https://doi.org/10.1007/s10460-016-9754-8

Edmonton Food Bank. (2018). *Edmonton's food bank: Annual report 2018.* https://www.edmontonsfoodbank.com/documents/66/Annual_Report_2018_Small_File_Size.pdf

Furness, W. W., & Gallaher, C. M. (2018). Food access, food security and community gardens in Rockford, Il. *Local Environment, 23*(4), 414–430. https://doi.org/10.1080/13549839.2018.1426561

Gaarde, I. (2017). Peasants negotiating a global policy space: La vía campesina in the committee on world food security. Routledge. https://doi.org/10.4324/9781315444963

Gottlieb, R., & Joshi, A. (2010). *Food justice*. MIT Press.

HB Lanarc Consultants. (2012). *Agricultural inventory & assessment: City of Edmonton city wide food and urban agriculture strategy*. Edmonton, Alberta: City of Edmonton. https://landusekn.ca/sites/default/files/Ag%20Inventory%20and%20Assessment%20Pt%201.pdf

Hendrickson, M. K., & Heffernan, W. D. (2002). Opening spaces through relocalization: Locating potential resistance in the weaknesses of the global food system. *Sociologia Ruralis, 42(*4), 347–369. https://doi.org/10.1111/1467-9523.00221

Hendriks, C. M., & Grin, J. (2007). Contextualising reflexive governance: The politics of Dutch transitions to sustainability. *Journal of Environmental Policy and Planning, 9*(3-4), 333–350. https://doi.org/10.1080/15239080701622790

Hospes, O., & Brons, A. (2016). Food system governance: A systematic literature review. In A. Kennedy & J. Liljeblad. (Eds.). *Food systems governance: Challenges for justice, equality, and human rights* (pp. 13–42). Routledge.

Intergovernmental Panel on Climate Change. (2019). *Climate change and land: Summary for policymakers.* https://www.ipcc.ch/site/assets/uploads/2019/08/4.-SPM_Approved_Microsite_FINAL.pdf

Kirwan, J., Maye, D., & Brunori, G. (2017). Acknowledging complexity in food supply chains when assessing their performance and sustainability. *Journal of Rural Studies*, 52, 21–32. https://doi.org/10.1016/j.jrurstud.2017.03.008

Kneafsey, M., Owen, L., Bos, E., Broughton, K., & Lennartsson, M. (2017). Capacity building for food justice in England: The contribution of charity-led community food initiatives. *Local Environment, 22*(5), 621–634. https://doi.org/10.1080/13549839.2016.1245717

Lady Flower Gardens. (n.d.). *Lady flower gardens*. http://www.ladyflowergardens.com/

Larder, N., Lyons, K., & Woodcock, G. (2014). Enacting food sovereignty: Values and meanings in the act of domestic food production in urban Australia. *Local Environment*, *19*(1), 56-76. https://doi.org/10.1080/13549839.2012.716409

Lawrence, A., De Vreese, R., Johnston, M., Konijnendijk van den Bosch, C. C., & Sanesi, G. (2013). Urban forest governance: Towards a framework for comparing approaches. *Urban Forestry & Urban Greening, 12*(4), 464–473. https://doi.org/10.1016/j.ufug.2013.05.002

Liefferink, D. (2006). The dynamics of policy arrangements: Turning round the tetrahedron. In B. Arts & P. Leroy (Eds.), *Institutional dynamics in environmental governance* (pp. 45–68). Springer, Netherlands.

Lockwood, M., Davidson, J., Curtis, A., Stratford, E., & Griffith, R. (2010). Governance principles for natural resource management. *Society and Natural Resources, 23*(10), 986–1001. https://doi.org/10.1080/08941920802178214

Lyson, T. A., Gillespie, G. W., & Hilchey, D. (1995). Farmers' markets and the local community: Bridging the formal and informal economy. *American Journal of Alternative Agriculture, 10*(3), 108–113. https://doi.org/10.1017/S0889189300006251

Moragues-Faus, A., & Morgan, K. (2015). Reframing the foodscape: The emergent world of urban food policy. *Environment and Planning A, 47*(7), 1558–1573. https://doi.org/10.1177/0308518X15595754

Mougeot, L. J. A. (2006). *Growing better cities: Urban agriculture for sustainable development*. International Development Research Centre (IDRC).

Nelson, E., Knezevic, I., & Landman, K. (2013). The uneven geographies of community food initiatives in southwestern Ontario. *Local Environment, 18*(5), 567–577. https://doi.org/10.1080/13549839.2013.788489

Pisano, U., Berger, G., Endl, A., & Sedlacko, M. (2011). *Sustainable development governance and policies in the light of major EU policy strategies and international developments.* European Sustainable Development Network (ESDN) Quarterly Report. https://www.sd-network.eu/?k=quarterly%20reports&report_id=22

Precht, P. (2019, November 13). What is the Alberta advantage? Can it be restored? *University of Calgary, School of Public Policy blog*. https://www.policyschool.ca/what-is-the-alberta-advantage-can-it-be-restored/

Qualman, D., Akram-Lodhi, A. H., Desmarais, A. A., & Srinivasan, S. (2018). Forever young? The crisis of generational renewal on Canada's farms. *Canadian Food Studies, 5*(3), 100–127. https://doi.org/10.15353/cfs-rcea.v5i3.284

Renting, H., Marsden, T. K., & Banks, J. (2003). Understanding alternative food networks: Exploring the role of short food supply chains in rural development. *Environment and Planning A: Economy and Space, 35*(3), 393–411. https://doi.org/10.1068/a3510

Seyfang, G., & Smith, A. (2007). Grassroots innovations for sustainable development: Towards a new research and policy agenda. *Environmental Politics, 16*(4), 584–603. https://doi.org/10.1080/09644010701419121

Sonnino, R. (2019). The cultural dynamics of urban food governance. *City, Culture and Society, 16,* 12–17. https://doi.org/10.1016/j.ccs.2017.11.001

Statistics Canada. (2020). *Labour force characteristics by census metropolitan areas*. Statistics Canada. https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410029401

Stocker, L., & Barnett, K. (1998). The significance and praxis of community-based sustainability projects: Community gardens in western Australia. *Local Environment. 3*(2), 179–189. https://doi.org/10.1080/13549839808725556

Tarasuk, V. (2001). A critical examination of community-based responses to household insecurity in Canada. *Health Education and Behavior*, *28*(4), 487 499. https://doi.org/10.1177/109019810102800408

Van der Jagt, A. P. N., Szaraz, L. R., Delshammar, T., Cvejić, R., Santos, A., Goodness, J., & Buijs, A. (2017). Cultivating nature-based solutions: The governance of communal urban gardens in the European Union. *Environmental Research, 159*, 264–275. https://doi.org/10.1016/j.envres.2017.08.013

Van Tatenhove, J., Arts, B., & Leroy, P. (Eds.). (2000). *Political modernisation and the environment: The renewal of environmental policy arrangements*. Springer.

Wakefield, S., Fleming, J., Klassen, C. & Skinner, A. (2012). *Sweet charity*, revisited: Organizational responses to food insecurity in Hamilton and Toronto, Canada. *Critical Social Policy, 33*(3), 427-450. https://doi.org/10.1177/0261018312458487

Yin, R. K. (2017). *Case study research and applications: Design and methods* (6th Ed.). SAGE Publications.

Vol. 8 No. 2, pp. 189-226 August 2021

Canadian Food Studies La Revue canadienne des études sur l'alimentation

Original Research Article

Integrative governance for ecological public health: An analysis of 'Food Policy for Canada' (2015-2019)

Peter Andrée*, Patricia Ballamingie, Mary Coulas

Carleton University

Abstract

Normatively grounded in the ecological public health paradigm, this paper speaks to the role of public policy in addressing food and nutrition-related health challenges through a critical analysis of the 2019 Food Policy for Canada (FPC). We draw on primary data gathered through a SSHRC-funded Partnership Grant, Food: Locally Embedded, Globally Engaged (FLEdGE). Qualitative research methods include interviews with key stakeholders and policy makers, critical review of national food policy consultation documents, participant observation in government-, industry- and civil society-led conversations about the food policy, as well as an investigation of stakeholder responses to the FPC announcements of 2019. Our analysis focuses on how Canada's new food policy: adopts an integrative, pan-Canadian approach; explicitly connects health and environmental dimensions of food; augments food security in a systematic way; addresses unique food security and health issues facing Indigenous Peoples; improves the health of food environments, such as those in Canada's schools; and meaningfully includes relevant stakeholders in food system governance. Against these expectations, we assert that the Food Policy for Canada does not yet provide an integrative, systems-based approach to addressing food and nutrition-related health issues consistent with the ecological public health approach, despite significant progress made. We conclude by proposing a research agenda for tracking Canada's food policy implementation and development going forward.

Keywords: Food policy; ecological public health; Food Policy for Canada

*Corresponding author: peter.andree@carleton.ca

DOI: 10.15353/cfs-rcea.v8i2.450
ISSN: 2292-3071

Introduction

This paper speaks to the role of public policy in addressing food and nutrition-related health challenges through an analysis of the newly established Food Policy for Canada (FPC). While the policy announced by the Minister of Agriculture in June 2019 (GoC 2019c) remains in its early stages of implementation, this paper examines the development of Canada's national food policy since the Trudeau government initiated its creation in 2015.

This work emerges out of active collaboration with Food Secure Canada and other civil society organizations that are part of the Food: Locally Embedded, Globally Engaged (FLEdGE) research network based at Wilfrid Laurier University. Our node at Carleton University took the lead on research related to the national food policy shortly after it was announced in late 2015. This research seeks to inform three key FLEdGE research themes: integration across multiple political jurisdictions and sectors; the tensions, compromises and opportunities inherent in the scaling up and out of sustainable food system initiatives; and the development of appropriate, innovative governance structures and institutions to support the development of sustainable regional food systems. FLEdGE partners work broadly to advance six 'good food' principles (see FLEdGE, 2016). While this research speaks to each of the six in some way, it touches most directly on the following principle: "We need good food policy that involves cross-cultural collaboration, all levels of government, and reflects the needs of people and their communities" (FLEdGE, 2016, Para 7). This paper is also informed by our engagement as researchers with the *ad hoc* Working Group on Food Policy Governance (2017a; 2017b), which included a diverse group of actors from academia, industry, farm groups, and civil society.[1] Methodologically, it draws on qualitative data obtained through a mixed methods approach, including fifty-nine interviews with key stakeholders and policy makers between March 2017 and October 2020[2], document analysis of food policy efforts in Canada, participant observation in government, industry and civil-society led conversations about food policy, as well as an investigation of stakeholder responses to the FPC announcements of 2019. Informed by discourse analysis (Foucault, 1991), institutionalism (Skogstad, 2012), and political economic analysis (Andrée, 2007), this work is best characterized as critical policy analysis, which emphasizes the contingency of policy development and implementation (Mulderrig et al., 2019). Critical policy studies look beyond a policy text to understand the social and political interests, values, and normative assumptions that shape policy processes and outcomes (Fischer et al., 2015).

This article is organized into four sections. First, we introduce our conceptual framework – a joined-up, integrative approach to ecological public health, translated to the Canadian context. Second, we draw on recent food policy literature to identify six analytical themes.

---

[1] For more details on who participated in the ad hoc Working Group on Food Policy Governance, see: https://arrellfoodinstitute.ca/policy-council/

[2] The following is a breakdown of interviews completed: 23 State, 6 industry, 23 civil society, 7 academic.

Originally organized as recommendations for government, each thematic section now includes questions we bring to our analysis of the FPC. Third, we critically examine specific aspects of the policy announced in 2019, including the newly funded infrastructure programs, national school food program announcement, and new governance mechanisms. This evidence allows us to speculate on how this policy responds to food and nutrition-related health issues in a way that is aligned with the ecological public health paradigm. To conclude, we delineate a research moving forward.

Conceptual approach

This research is situated within a global movement to build evidence-based, joined-up food policies intended to address food and nutrition-related health challenges, informed by the paradigm of ecological public health (Rideout et al., 2007).[3] We define food and nutrition-related health challenges broadly as the myriad influences, including socio-economic inequalities and environmental factors, that affect the health of people living in Canada. These issues include diet-related chronic diseases like cardio-vascular disease, obesity[4], diabetes and diet-related cancers, as well as a wider range of health issues related to how our food systems work, such as environmental exposure to dangerous chemicals.

Collectively, nutrition-related diseases pose a growing public health risk in Canada. For example, in 2012-2015, nearly 1 in 4 Canadians over twenty years of age were diagnosed with hypertension (a serious risk condition for heart disease, stroke and dementia) – exacerbated by excess body weight, and immoderate consumption of alcohol and salt (Statistics Canada, 2019). The Government of Canada (2021c) also describes a steady and dramatic rise in diabetes, since 2000 with type 2 diabetes linked closely to diet as well as genetics and age. Such nutrition-related chronic diseases correlate with behavioural factors like inactivity, but they are also influenced by food access and quality, socio-economic status, social supports, and built environment, among other factors (Tarasuk et al., 2010). Health issues related to how our food system functions are less readily quantified, but remain nonetheless. Examples include exposure to toxic pesticides (by consumers and agricultural workers), declining food access resulting from global environmental change, as well as the unique health issues facing food system workers like repetitive stress injuries (Johnstone, interview, April 23, 2020; Schnitter and Berry, 2019).

---

[3] Notably, we did not frame this research through the ecological public health paradigm at the outset. Rather, this framing emerged over the course of presenting our work at conferences and preparing this paper because of how it clearly encapsulates so many of the expectations coming from academics, civil society, and government actors alike for what a national food policy in Canada *could* and *should* achieve.

[4] Obesity is widely referred to in the health and nutritional literature but remains a problematic term in the ways it pathologizes certain body types, which in turn has racialized implications. In the absence of a better way to allude to the adverse health implications of excess weight, we follow the British Psychological Society in referring to "people living with obesity" to mitigate stigma, though we agree with Pausé (2019) that the best approach would be to ask individuals their preference.

Food and nutrition-related health issues are not experienced equally by everyone. For every issue, there are groups who are disproportionately affected because of their race, socio-economic status, location and occupation, among other factors. In the case of health issues related to food insecurity, for example, Melana Roberts (2020) of Food Secure Canada asserts: "In Canada, more than 4 million people struggle with the burden of food insecurity, with a disproportionate number of Black, Indigenous and racialized Canadians identifying as food insecure as a result of enduring racialized income inequality." She further explains that Black Canadians experience food insecurity 3.5 times more than White Canadians, leading to a host of health disparities. As a second example, rates of people living with obesity are significantly higher for off-reserve First Nations, Métis and Inuit than for non-Indigenous populations (GoC, 2013). Further, the food and nutrition-related health challenges of people who rely on store-bought food in cities differ significantly from those who rely on hunted game in rapidly changing remote Northern environments. And, even within major cities, specific communities may have differential access to healthy and unhealthy foods depending on where they live (Mah et al., 2016). In response to such differences, public policy must target vulnerable populations to mitigate health and nutritional disparities. Seeking to address nutrition-related health inequities involves "assessing and addressing social, economic and spatial disparities in the food environment; examining how food environment disparities affect different populations disproportionately; promoting a fair distribution of resources; and enabling individual capacities" (Mah et al., 2016, p.66).

Lang, Barling & Caraher (2009) advocate for an integrated approach to addressing food and nutrition-related health issues. They argue for food policies at multiple, interrelated, levels of governance based on the fundamental principles of ecological public health. This approach brings insights from complexity theory and systems dynamics, to encourage the open debate and pursuit of social values, and embraces interdisciplinarity as well as multi-actor approaches to address health challenges (Lang & Rayner, 2012).

Our analysis here is normatively grounded in this ecological public health paradigm. While we recognize Canada's new food policy is not explicitly rooted in this paradigm, we believe a critique informed by this perspective is reasonable given the breadth of the new policy's vision, which states: "All people in Canada are able to access a sufficient amount of safe, nutritious, and culturally diverse food. Canada's food system is resilient and innovative, sustains our environment and supports our economy" (GoC, 2019e, p.5). The policy's six principles, outlined in our analysis below, also imply a desired level of integration across the government's food-related policies and strategies consistent with this approach.

What does an ecological public health critique entail? It means situating food and nutrition-related health issues within a multi-scalar analysis of the food system and considering how public policy can support efforts at each of these scales to stimulate health-promoting food environments.

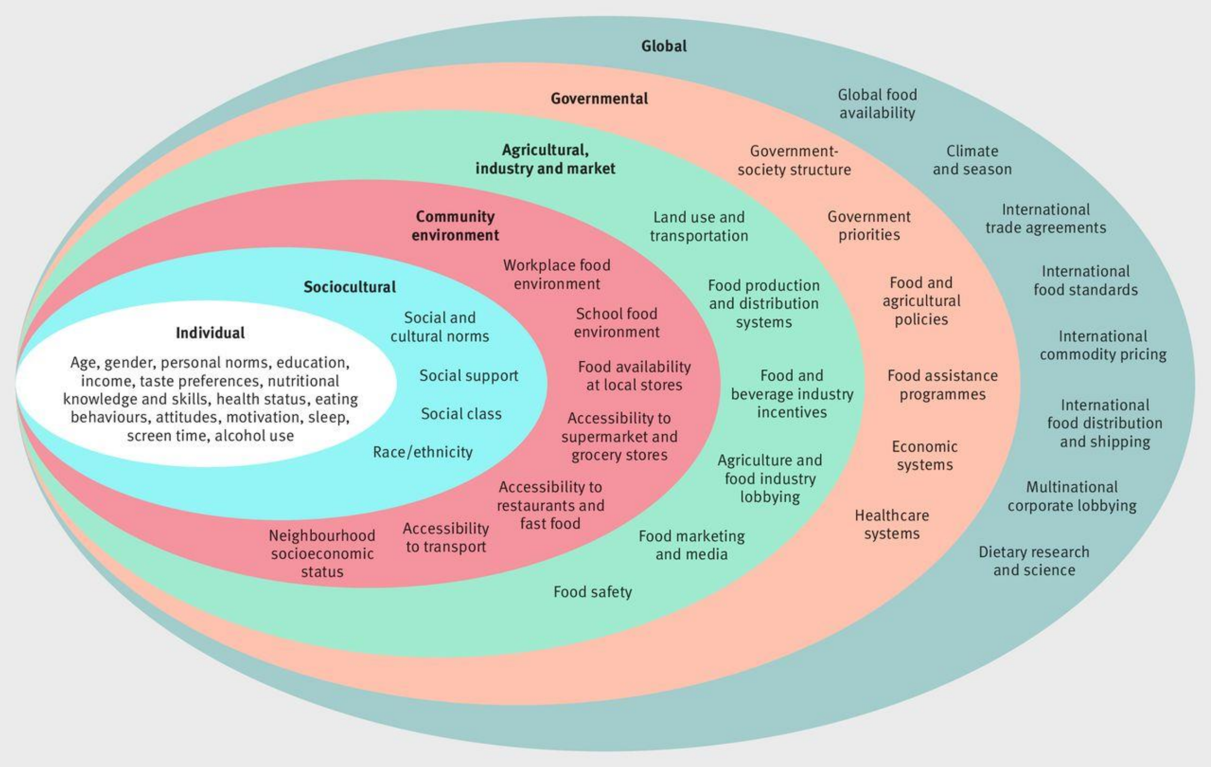
Figure 1 delineates key scalar factors influencing food choices – nested from the individual level to the socio-cultural and community environments, to the agricultural, industry and market conditions, to governmental programs and supports, to the global geopolitical, environmental and economic context.[5] First, food choices are shaped by personal preferences and dietary habits, though this should not mean the onus of responsibility rests entirely with the individual. In fact, this diagram clearly illustrates that the individual is nested within a food system that impacts agency at every scale. This model recognizes the importance of broader structural and societal constraints shaping food choices. Individuals are significantly differentiated in their ability to access healthful and nutritious food, or to work in less risky occupations, notably by income, education, nutritional knowledge, skills, and health status. Second, food environments matter. This includes neighborhood retail and restaurant options (or lack thereof), workplace and school offerings, as well as how food is marketed. Third, how we produce our food, and what governments choose to subsidize, directly impacts nutritional quality, food safety, ecological integrity, and for all these reasons, human health. Fourth, government departments at various scales (agriculture, community and economic development, public health, trade, and foreign affairs) are all implicated in problems like food insecurity and chronic health challenges. Finally, global forces such as commodity prices, climate and scientific developments all shape what is possible (and not) at each of the other levels.[6]

---

[5] For a fuller discussion of how these factors interrelate, see Mozzaffarian et al., 2018.

[6] One limitation we see to this diagram is that it could tease out in more detail the biophysical contexts, from the local to the global, within which food choices get made. Such contexts include soil quality, nutrient cycles, and levels of toxic contaminants in specific environments, etc.

Figure 1: Scalar factors impacting food choices


Global
Governmental
Agricultural, industry and market
Community environment
Sociocultural
Individual
Age, gender, personal norms, education, income, taste preferences, nutritional knowledge and skills, health status, eating behaviours, attitudes, motivation, sleep, screen time, alcohol use
Social and cultural norms
Social support
Social class
Race/ethnicity
Workplace food environment
School food environment
Food availability at local stores
Accessibility to supermarket and grocery stores
Accessibility to restaurants and fast food
Accessibility to transport
Neighbourhood socioeconomic status
Land use and transportation
Food production and distribution systems
Food and beverage industry incentives
Agriculture and food industry lobbying
Food marketing and media
Food safety
Government-society structure
Government priorities
Food and agricultural policies
Food assistance programmes
Economic systems
Healthcare systems
Global food availability
Climate and season
International trade agreements
International food standards
International commodity pricing
International food distribution and shipping
Multinational corporate lobbying
Dietary research and science

Source: Mozzaffarian et al., 2018

To bring an ecological public health approach to food policy means considering a wide variety of multilayered and interconnected sociocultural determinants and political economic factors—a feat which can only be accomplished through an integrative or joined-up (two terms we treat as synonymous in this paper) governance approach that remains mindful of these scalar connections. MacRae and Winfield (2016) characterize a "joined up food policy" as follows:

> By joined-up food policy, we mean the coherent and comprehensive policy environment that links food system function and behaviour to the higher order goals of health promotion and environmental sustainability. A joined-up policy unites activities across all pertinent domains, scales, actors and jurisdictions. It employs a wide range of tools and governance structures to deliver these goals, including sub-policies, legislation, regulations, regulatory protocols and directives, programs, educational mechanisms, taxes or tax incentives, and changes to the loci of decision making. (p.141)

In Canada, as in every country, what a joined-up approach could look like depends on the administrative organization of the state, as well as the relationship among state, market actors and civil society. Canada is a federal country with thirteen provinces and territories.

Under the Constitution Act, 1867, the provinces have the exclusive authority to govern in certain areas, such as health, natural resources, and education, while the federal government has authority over, for example, trade, commerce, and environment. These two levels of government also share jurisdiction in certain domains, such as agriculture. Since 1867, courts have added nuance to questions of jurisdiction related to many areas of food system governance, sometimes granting more power to the provinces (such as over environmental protection), and sometimes articulating a more "expansive view of federal power" (Richardson & Lambek, 2018). Unlike provinces, the territories (Northwest Territories, Nunavut and Yukon) have no constitutional powers of their own but receive legislative authority from the federal government. Current powers exercised by territories include education, social services, and health (GoC, 2020a). Finally, as of the 1970s, when the first of Canada's modern treaties was negotiated, twenty-five Indigenous communities now exert self-government (GoC, 2020b). As with the territories, Indigenous self-government typically involves control over education, social services and health care institutions (GoC, 2020b).

Over the last 150 years, the various levels of government have each developed myriad laws, policies, and regulations governing aspects of the food systems that affect Canadians' health. Directly governing food within federal legislation, for example, Canada has a Food and Drug Act (1920, 1985), the Safe Food for Canadians Act (2012), the Seeds Act and the Pest Control Products Act (2002), to name just a few. Canada also has cost shared federal-provincial-territorial policy frameworks such as the Canadian Agri-Food Policy Framework. Then, there are federally funded programs that shape food systems outcomes such as Nutrition North, a program which subsidizes eligible food retailers in select remote communities. Canada also has national strategies developed in consultation with provinces and territories, such as its Poverty Reduction Strategy (2018) and National Housing Strategy Act (2019) as well as federal dietary guidelines found in the Healthy Eating Strategy (2016) and Canada Food Guide (2019). Meanwhile provincial, municipal and territorial laws and policies, including recent provincial food policy efforts in Québec and British Columbia, as well as a raft of recent municipal food charters, combined with the effect of Comprehensive Land Claim Agreements negotiated between the Crown and Indigenous governments (some of which have resulted in Indigenous self-government) all add layers of complexity to the policy landscape shaping food systems in Canada (Martorell & Andrée, 2018). The result is a patchwork approach to food-related law and policy that lacks coherence in relation to a common vision of a healthy and sustainable food system. Needed is a more integrated food policy approach, or what we have previously termed a "pan-Canadian" (Andrée et al., 2018) approach, one which requires coordination across multiple federal policy domains (finance, health, environment, fisheries, agriculture, etc.), and brings greater coordination across levels of government as well as with civil society and industry actors.

Pesticides provide an illustrative example of why an integrative approach is necessary. At the federal level, the Pest Control Products Act, administered by Health Canada, ultimately reviews and regulates pesticide use, resulting in decisions intended to safeguard consumer health (Health Canada's Food Directorate and the Canadian Food Inspection Agency), but also impacting farmer livelihoods (the purview of Agriculture and Agri-Food Canada and provincial agriculture departments), non-target organisms and ecosystem health (the realm of Environment and Climate Change Canada), and even agricultural exports (Global Affairs Canada). Moreover, risk assessment is an inherently normative concept, and civil society proponents have long flagged the unknown, adverse impacts of cumulative, synergistic exposure to pesticide residues for consumers, not to mention spray drift for farm workers and adjacent communities (see CBAN, 2020; PAN, 2020). Thus, critics argue the health and environmental lenses are not foregrounded strongly enough, alongside other economic considerations.[7] Navigating this one issue related to food systems governance requires a more integrative approach that privileges a shared vision of safe and healthy food system, while recognizing distinct but overlapping jurisdictions, competing and sometimes contradictory priorities, and interconnected issues, across various scales and regions.

Moving forward, we evaluate FPC through the ecological public health paradigm. Given that this is a piece of federal government policy, this analysis pays due attention to jurisdictional considerations. Alongside our *ad hoc* Working Group on Food Policy Governance (2017a) partners, we see the federal government's role in an integrative national food policy as that of: a leader in developing a holistic approach across departments and agencies; an innovator in designing new cross-cutting policy solutions to long-standing issues like food insecurity; a partner in negotiating nation-to-nation policy with Canada's Indigenous (First Nation, Métis and Inuit) governments; a convener of food system governance coordination efforts with other levels of government, industry and civil society; and, a (co-)funder of resultant strategies and action plans. In the following section, we further elucidate this vision before unpacking how the FPC measures up.

Analytical themes

First prepared as its own research output prior to the announcement of the food policy in 2019, this section sets the agenda for our analysis. It develops the ideal of ecological public health by drawing on recent academic literature and some of our primary data to suggest how Canada might address food and nutrition-related health issues in this federal nation with diverse communities and needs.

---

[7] Martorell & Abergel (2018) offer a solid overview of how Québec navigates the precautionary approach, multifunctionality and subsidiarity in its agricultural policy.

This material is organized under six overlapping themes, each of which results in questions to ask of the FPC: Integrative Governance; Ecological Sustainability for Health; Food Security and Right to Food; Healthy Food Environments; Indigenous Food Self-Determination; as well as Meaningful Stakeholder and Public Engagement.

Integrative governance

Central to the ecological public health paradigm is the goal of integrative governance not only among federal government departments but also with other levels of government, industry and civil society. For example, at a national level, the institutional apparatus administering Norway's Nutrition and Food Policy (originally created in 1936 and revamped in 1975) provides a useful model for what this can look like (Blueprint for a National Food Strategy, 2017). At the ministerial level in Norway, two formal bodies coordinate the implementation of the country's policy across government departments: the National Food Control Authority (a centralized, coordinating agency) and the National Nutrition Council, with the latter including non-governmental voices to ensure multi-stakeholder input into government policy. Since 1975, the official nutrition and food policy White Papers produced by the National Nutrition Council "have been central political and strategic documents in the efforts to improve public health in Norway during the last thirty years" (Norum et al., 2005, p. 735).

To date, Canada has yet to realize an integrated approach to food policy at the national level, though some relevant examples exist at provincial, territorial and municipal levels (Martorell & Andrée, 2018). Lack of integration may be partly explained by the way powerful industrial agricultural interests—some deeply opposed to change—dominate agri-food policy at the federal level (Andrée et al., 2018). Long-standing differences among food system stakeholders also mean there was no unified voice calling for change. However, under the promise of government action on food policy in 2015, many of these stakeholders found new ways of working together through the *ad hoc* Working Group on Food Policy Governance. Building on the spirit of collaboration evident in the *ad hoc* Working Group, we analyzed shared priorities among diverse stakeholders who were active on the food policy file in Canada in the 2010s and identified considerable consensus around six major substantive goals (Andrée et al., 2019). To meet these goals, we then laid out five recommendations related to food policy governance. Those recommendations can also be seen as criteria for considering the extent to which the FPC furthers integrative governance. To what extent does the FPC: further a pan-Canadian strategy (inclusive of all levels of government)?; set measurable targets and mechanisms to ensure accountability (recognizing there will invariably be regionally distinct, place-based ways to achieve such outcomes)?; enable the scaling up and out of tried-and-true initiatives from municipal, provincial and territorial levels?; involve ongoing stakeholder dialogue and problem-solving?; and ensure strong cross-departmental coordination at the federal level?

Ecological sustainability for health

Academic discussions in Canada about what a joined-up food policy can do to further the complementarity of ecological sustainability and public health goals build on, and contribute to, the international literature on ecological public health. Lang (2009) argues that health and environmental sustainability require integrated thinking and food policy for both crisis-related solutions (short-term) and evolutionary prevention (long-term). Lang and Barling (2012) assert that this shift to multi-temporal thinking requires a conceptualization of food and health as integrally connected to and reliant upon ecosystems. However, the International Panel of Experts on Sustainable Food Systems (IPES-Food) (2016) points out that industrial agriculture will remain entrenched if systems are measured only in terms of a small set of production and economic indicators, and not in terms of their overall social, environmental *and* economic impacts. This assessment appears to characterize where Canada is starting from as it embarks upon a more integrative food policy. How food is produced significantly determines ecological impact regarding climate, biodiversity, water quality, soil, and efficient use of scarce resources. Canada's agricultural system is a source of 8.4% of the country's greenhouse gas emissions (GoC, 2021b), with about half of this related to livestock production. Meanwhile 58% of food produced in Canada is never eaten, being considered either food loss or waste (Gooch et al., 2019). Bacon et al. (2019) argue that Canada's food policy project aligns with agro-industrial export models focused on economic growth. Instead, productivity gains must be evaluated alongside critical environmental indicators—an approach made possible through the ecological public health paradigm.

Despite these challenges and critiques, Canada already has functional food production systems more consistent with the ecological public health paradigm. For example, Tia Loftsgard, executive director of Canada Organic Trade Association, argues that Canada's organic food sector offers a viable model for food security and sustainability, and its profitability and growing exports suggest an assured future (Loftsgard, interview, May 13, 2020). And, in contrast to intensive livestock production (with its ecological costs), Canada's strong pulse sector, already supported by public sector investment, underpins a growing plant-based protein industry (Krutt, 2019). Finally, Canada has a growing suite of alternative and local food system initiatives, many developed to mitigate impacts of the large-scale, export-oriented agricultural system. However, these smaller-scale production systems often suffer because regulations and policies have been designed for larger-scale systems. To encourage a shift towards more sustainable forms of food production that are also health-promoting, this review suggests we examine the extent to which the FPC actively aligns environmental, economic and health goals, along with the programs designed to help achieve them. Does it explicitly connect ecological sustainability and health by, for example, encouraging forms of food production and distribution that address pressing issues like climate change and the rise in chronic nutrition-related disease?

Food security and right to food

Dachner and Tarasuk (2018) argue that a national food policy offers Canada an opportunity to address food insecurity and prevalent nutrition-related health issues because it can simultaneously promote healthy consumption habits and safe food practices. Canada is one the largest food producers and wealthiest countries in the world. However, four million people living in Canada (12.7% of households) (PROOF, 2016b), among them 1.15 million children, have trouble meeting their food needs (PROOF, 2016a). The resultant food insecurity, as Tarasuk and Mitchell (2018) explain, "takes a serious toll on individuals' health and well-being, and it places a significant burden on our health care system" (p. 3). The authors identify a host of public health challenges exacerbated by food insecurity, from "mood and anxiety disorders, arthritis, asthma, back problems, and diabetes" to "higher mortality rates" (2018, p. 6). This problem is more prevalent in northern and remote communities, such as Nunavut, where two-thirds of children remain food insecure (PROOF, 2016a). Food insecurity is closely intertwined with poverty and inadequate housing. Choosing between buying food and paying for housing can make it impossible for segments of the population to make autonomous food choices or meet basic dietary needs. Inconsistent food and nutritional literacy also impacts food choices, dietary habits and overall health (Howard & Brichta, 2013).

In recent years, many Canadian researchers attribute food insecurity primarily to income insecurity (Dachner & Tarasuk, 2018). However, the logic of their analysis, which points towards the potential role of a basic income guarantee, is easily lost in partisan debates over the role of the individual versus that of the state. McIntyre et al. (2018) argue that such partisan responses render an addressable problem seemingly intractable.

One way to confront the issue of food insecurity at an institutional level is to address it as a human right. Various prominent individuals and groups, including the UN Special Rapporteur on the Right to Food, Olivier de Schutter (2012), have noted that the federal government of Canada has a legal obligation to ensure the full realization of the right to food for all those living in Canada as a State Party to the International Covenant on Economic, Social and Cultural Rights, but that Canada does not yet provide legal or constitutional protection of the right to food. After his visit in 2012, De Schutter concluded that Canada would benefit from a national right to food strategy to better understand who is hungry, food insecure and malnourished. Within this approach, better evidence-based research for the realization of the right to food would occur and clear allocation of responsibilities across different levels of government would follow. Riches and Silvasti (2014) and Rideout et al. (2007) argue the right to food framework addresses the limitations of Canada's now dominant and normalized approach to food insecurity —the charitable model reliant on foodbanks. The latter effectively allows governments to hide their inaction (Jindra, 2016).

In their submission to the FPC consultation process, the *ad hoc* Working Group on the Right to Food (2017) argue that this new policy provides an important opportunity to demonstrate Canada's commitment to its human rights obligations.[8] Thus, we ask critically: To what extent does the FPC augment food security in a systematic way (beyond charity—invoking the Right to Food), by making structural connections to poverty and income security?

Healthy food environments

There is a rich conversation in Canada about what an approach consistent with ecological public health entails when it comes to supporting healthier food environments at multiple levels of governance, and the role federal policy can play. Mah et al. (2018) advocate close attention to the conception, construction and implementation of food environments, including how people are exposed to food marketing, to help remedy issues of food insecurity, health, and nutrition. Food environment interventions can be of a diverse nature, and often start at the community level, though they can be facilitated by policy at all levels of government. They include encouraging healthier options at corner stores, to supporting community kitchens, freezers and gardens (Andrée et al. 2016). Mah et al. (2016) note that "many interventions adopt goals such as community development, economic development or ecological sustainability alongside health aims," with entrepreneurialism as a form of social change-making. Further, understanding children's food environments, such as the food children eat while at school, elucidates which environments have effects on consumption habits and diets (Engler-Stringer et al., 2014). Government and public health have the potential to take this evidence and shift policy accordingly. However, Nelson et al. (2018) caution that a national food policy should avoid a framework based on assumed 'best practices' because it can undermine the reality that food issues are contextual; as a result, 'good practices' is used more widely. Place-based approaches to preventing and solving food issues are best understood by those experiencing them.

Canada is the only member country of the Organization for Economic Cooperation and Development (OECD) without a national school meal program (Hernandez et al. 2018). The proposed national school food program is thus an opportune food environment to encourage healthy eating and improve individual, household and community nutritional knowledge. Hernandez et al. (2018) argue that "school food programs have been shown to benefit health and dietary behaviour and critical food literacy skills (learning, culture, and social norms) that support local agriculture and promote sustainable food systems" (p. 208).

---

[8] The Ad Hoc Working Group on the Right to Food included representatives from community and national civil society organizations and academics with expertise in law, social work, and environmental resources sustainability. For a full list of working group participants and the objectives of this group see their submission, *Ensuring the Human Right to Food Through A Food Policy for Canada,* to the Government of Canada in 2017.

Such an approach complements current conversations of integrating health, nutrition and environment into education (Bundy et al., 2012). In principle, then, a national approach to school food could be designed to be contextually-appropriate, responding to Nelson et al.'s (2018) concerns noted above. School food provides a domain in which nation-wide standards could be set, while being carried out in a decentralized manner through multi-level coordination of national, provincial and local communities (Andrée et al., 2019). In this regard, we must ask: How does the FPC help to create or maintain healthy food environments? How might it further a holistic approach to school food nationally, while ensuring programs are appropriate to diverse community contexts?

Indigenous food self-determination

An ecological public health approach means taking health equity seriously. Indigenous Peoples are among the most vulnerable in Canada to food and nutrition-related health disparities due to historical and ongoing threats to land, culture and linguistic heritage which ultimately destabilize identity and self-determination (ITK, 2017; Kuhnlein, 2013; Levi, 2017; NWAC, 2018). As a result, Indigenous proponents argue that effective mitigation of health issues prevalent in their communities closely interconnects with the advancement of food security, human rights, Indigenous food sovereignty[9], and greater self-determination (Coté; 2016; NWAC, 2018).

Many have argued that stronger Indigenous participation in the development and implementation of a national food policy should better attend to Indigenous priorities (e.g. Luppens & Power, 2018). However, there are mixed views on what such participation signals. Kepkiewicz & Rotz (2018) have expressed concern that a "national" effort is "rooted in colonial assumptions," that problematize reconciliation efforts[10] (p. 14). They further argue the (im)possibility of a national food policy that takes Indigenous food sovereignty seriously; in their view, scaling food policy to the national level continues to impose the Canadian state's power over Indigenous Peoples and their diverse means of food provision which are unique to place and space. Further, some of the dominant assumptions informing research and health promotion activities targeting Indigenous peoples prove inconsistent with evidence produced by Indigenous Peoples themselves (Adelson, 2005; Levkoe & Blay-Palmer, 2018). When Andrée et al. (2019) examine the configuration of state and civil society actors seeking food policy influence, they note that not all voices are at the FPC table, and Indigenous peoples remain notably under-represented.

---

[9] The Indigenous position statements we refer to are not all framed around the concept of Food Sovereignty, hence we call this theme "Indigenous Food Self-Determination."

[10] The fact that the Truth and Reconciliation Commission's Calls to Action fail to make explicit reference to food is perhaps telling.

Collectively, these observations lead us to ask: How does the FPC engage with the unique food security and health issues faced by Indigenous Peoples? How does it serve to strengthens Indigenous food self-determination? And, is it designed respectfully and equitably with appropriate Indigenous governance bodies?

Meaningful stakeholder and public engagement

The ecological public health paradigm recognizes the important role that non-state actors can and should play in the achievement of integrative food policy goals (Lang and Rayner, 2012). Decisions about what fishers and farmers harvest, what the food industry produces, and how supply chains operate, all have ramifications for the health of those who eat this food as well as those exposed to it in their workplaces and communities. This paradigm also foregrounds the value of public engagement and debate over how the food system operates, and the outcomes it achieves (Lang and Rayner, 2012). The idea of public and stakeholder engagement in policy setting and implementation have been central to the food policy conversation in Canada over the last decade. La Via Campesina's 2003 call for food sovereignty, defined as "the people's… right to define their agricultural and food policy" was a critical source of inspiration for the People's Food Policy (PFP) project (2007-2011) (Food Secure Canada, n.d.; Martin & Andrée, 2017). Subsequent food strategy documents by the Canadian Federation of Agriculture, Canadian Agri-Food Policy Institute, the Conference Board of Canada and national Indigenous organizations each contributed to the conversation provoked by the PFP. Commonalities among those diverse stakeholder positions, along with the dogged advocacy of Food Secure Canada, set the stage for Trudeau's national food policy announcement of 2015 (Andrée et al., 2019).

As noted above, we have been actively involved in an informal working group of stakeholders advising government on options related to food policy governance. Over sixty industry, civil society, and philanthropic organizations supported the *ad hoc* Working Group on Food Policy Governance's proposal to the federal government (ad hoc Working Group 2017a and 2017b). It called on government to create a "National Food Policy Council, a new independent multi-stakeholder body…. to provide consistent monitoring, well-researched advice, and broad stakeholder support for a FPC" (ad hoc Working Group 2017a, p.4). The group envisioned such a council to facilitate two critical ends: coordination of policies and programming within and between departments and levels of government; and an inclusive approach to policymaking that actively considers the needs of diverse stakeholders by undertaking public engagement to inform its work.

Civil society councils have been developed in other countries to advise on integrated food policy efforts, and at other levels of governance. Brazil, as one example, has benefitted from a National Food and Nutrition Plan since 1999 (Ministry of Health of Brazil, 2013).

Its Unified Health System aligned food policy across governmental levels and silos, with active civil society co-governance (Leão & Maluf, 2013) to translate proposals into policy through the National Council on Food and Nutrition Security (CONSEA). During a Food Secure Canada panel on Food Policy Governance, Elisabetta Recine (2018), CONSEA President, described the body as "an institutional space that articulates across government and civil society to advise the President of the Republic." She cited Brazil's Art 2 Law 11.346 (2006): "The human right to adequate food makes all the difference!" and further stressed that this is: "Not only about food justice, but also social justice".[11] The Civil Society and Indigenous People's Mechanism (CSM) to the UN FAO's Committee on Food Security (CFS) represents a similar model. Among the advantages of this mechanism within the CFS, Anderson (2019) argues that it allows those suffering from hunger and food insecurity to be heard from directly and to participate in defining solutions. Further, civil society actors play an important "watchdog" function. Ultimately, the CSM gives the CFS greater legitimacy and accountability to those who are most impacted by decisions (Anderson, 2019).

Because of the wide reach of the FPC, an advisory mechanism that only includes civil society representation would likely prove an imperfect match. Finland offers an example of a true multi-stakeholder advisory body. Finnish nutrition policy is based on a "good monitoring system of nutrition and risk factors of chronic diseases, as well as active epidemiological research" (Pietinen et al., 2010: p. 901). As of the 1980s, the policy is guided by the Finnish Nutrition Council. The Minister of Agriculture and Forestry appoints its members, including representation from health, nutrition, food safety, research, health promotion, food production, trade, consumers and catering services (Roos et al., 2002). In 1989, the Council was allocated a small but high-powered secretariat, co-chaired by the Ministry of Social Affairs and Health (Milio, 1991; Roos et al., 2002). The Council issues nutritional recommendations, advises government, undertakes research, and generates reports on efforts by industry and other actors intended to improve diets. While this top-down approach is not fully consistent with an ecological public health paradigm, in our view, the Finnish Nutrition Council represents a starting point for working across silos, and with stakeholders, to enact a more integrative national policy.

Our three international examples (Norway, Brazil and Finland) not only exhibit diverse policy and governance interventions, but also embrace a cross-governmental approach involving key stakeholders. The greatest impact and legacy of food policy occurs when new institutional bodies are established.

---

[11] Despite its strong track record over the last twenty years, Brazil's right-wing president, Jair Bolsonaro, who took office on January 1, 2019, eliminated CONSEA, presumably due to its critical stance on agrochemical and advocacy for family farming. His government transferred food security to the Ministry of Citizenship. Recine (2018) views this as a significant setback for civil society and win for agribusiness. However, Congress defeated this Presidential decree and fully reactivated the organization as part of the National Law for Food and Nutrition Security. Nonetheless, the Bolsonaro regime poses an ongoing threat to human rights and social policy advances in Brazil.

Norway's Inter-Ministerial Council, Finland's National Nutrition Council and Brazil's CONSEA are each institutional bodies formally incorporated into state mechanisms, thereby ensuring food policy is coordinated across relevant departments, with strong stakeholder buy-in. However, Canada's situation differs from each of these countries in notable ways: Canada is the world's fifth-largest agricultural exporter (CAFTA, 2021) while both Norway and Finland are high-cost producers whose agricultural policies tend to focus on maintaining a high degree of self-sufficiency (OECD, 2021). Of the three, Brazil is also a major agri-food exporter, but its food policy explicitly regulates the domestic sector rather than exports. Interestingly, despite significant efforts at an integrative and inclusive approach, these three countries' food-related policies remain divided into two distinct realms: agriculture (production and industry support) and health (consumption related to nutrition and diet), with distinct policy measures implemented in each realm. To date, we have found no comparator of a major agri-food exporting nation that has succeeded to bring these policy areas together in the way the ecological public health paradigm encourages, which thus raises the question of how Canada's FPC will ensure meaningful stakeholder and public engagement?

Analysis of a food policy for Canada

This section critically analyzes Canadian food policy developments vis-à-vis the themes and questions identified in each of the six sub-sections above, considering only aspects of the policy most relevant to addressing food and nutrition-related health issues. It focuses on the FPC initiatives announced in the March 2019 federal budget, which allocated $134M in new cash investments over 5 years (GoC, 2019b), as well as the more detailed policy announced in June 2019 (GoC, 2019c). To understand the development of the government's position on certain issues, we refer to other steps in the policy process as appropriate, including the government's response (GoC, 2018a) to the food policy report of the House of Commons Standing Committee on Agriculture and Agri-Food (GoC, 2017b), and documents released during the FPC consultation process.

Having received a mandate from the Prime Minister to create a food policy in late 2015, the Minister responsible for AAFC called together an inter-departmental committee to work on the future policy. The government then conducted a public consultation process from May to October 2017. They gathered input through a wide range of means, including: approximately forty-five thousand online surveys; six regional engagement sessions (with a total of 352 participants) across Canada; a National Food Policy Summit in Ottawa with 291 participants; 100 written submissions; twenty-nine town hall meetings hosted by Members of Parliament; fourteen submitted briefs; fifty-two witnesses to the House of Commons Standing Committee on Agriculture and Agri-Food; twenty-eight community-led events; and four bilateral or self-led engagement by national Indigenous organizations (Government of Canada, 2018, pp. 5 and 37).

The FPC that resulted from this activity can be parsed out into five main components: a vision statement (quoted verbatim above), six "priority outcomes", four "action areas" intended to "make progress on outcomes", six "principles to help guide.... work" (GoC 2019d, p. 5), and a short section on accountability and governance. It notes that specific, measurable targets for each of the priority outcomes will be developed by federal partners (as part of a "cross-government reporting framework" (GoC 2019d, p. 8) for accountability) with input from a new governance mechanism called the Canadian Food Policy Advisory Council. Details on relevant priority outcomes, action areas and the new governance mechanism are discussed below. Notably, the government's six principles represent a promising start to a food policy effort intended to address food and nutritional disparities.

Key elements of the six principles prove consistent with the ecological public health paradigm that informs our analysis. If taken seriously, they form a strong basis for integrated food policymaking. The principles are: 1) "Inclusion and Diversity" in food policy dialogue and decision-making, among other contexts; 2) "Reconciliation", which includes the recognition that First Nations, Inuit and Métis communities have distinct food systems that have been disrupted by Government policies, and highlights active support for "Indigenous food self-determination"; 3) "Collaboration" among governments, organizations, and Indigenous communities, among others, in a systemic approach to food system challenges; 4) "Innovation", including both technological and social (including community-based) innovation; 5) "Sustainability," including "support for the adoption of practices and technologies that contribute to clean air and water, soil health, biodiversity, sustainable use of resources (e.g. greenhouse gas emissions, energy, farm inputs, and water) and climate change mitigation and adaptation," and 6) "Evidence and Accountability", including developing indicators and making decisions on "best available data, knowledge and research, including traditional forms of knowledge." Each of these principles takes a clear position on issues that have vexed Canada's food system over the years, such as an overemphasis on industry voices informing agriculture and food-related policies, inadequate attention to Indigenous foodways and the inherent rights of Indigenous people to pursue them, an overemphasis on technological fixes to issues like food insecurity, inadequate attention to biodiversity protection and the constructive role that food systems can play in addressing climate change, and the need for evidence-based approaches to policy, even if that evidence goes against a country's perceived economic interests. However, the devil always lies in the details. Because a policy's programmatic and administrative structure is critical to what it can be expected to achieve, we begin our analysis with a focus on the FPC's promise to offer greater integration of policy and programming.

Integrative governance?

The FPC mentions how "all orders of government, including many federal departments" have sought to address food systems issues, and specifically draws attention to "income support programs that reduce poverty, that can also reduce food insecurity" (GoC 2019d, p.3)—without truly defining government-wide goals around critical issues like food and income security. The lack of stronger intra-governmental coordination represents a missed opportunity, given how the What We Heard Report (GoC 2018b, p.29) spelled out the "need for policy and program coherence" among, for example, "the Healthy Eating Strategy, Canadian Food Inspection Agency labelling initiatives, the FPC, and other health and food regulations" as a "priority in all consultations and themes."

To bolster the point that greater intra-governmental coordination was indeed expected through this policy, recall that in all 2015 Mandate Letters to Cabinet the Prime Minister urged Ministers to provide a different kind of governance for Canadians, noting that such a framework required:

> … close collaboration with colleagues; meaningful engagement with Opposition Members of Parliament, Parliamentary Committees and the public service; constructive dialogue with Canadians, civil society, and stakeholders, including business, organized labour, the broader public sector, and the not-for-profit and charitable sectors; and identifying ways to find solutions and avoid escalating conflicts unnecessarily (GoC, 2015).

However, in 2015 the Agricultural Minister's mandate letter proved the only instance where a minister was directed to engage in the development of a national food policy. One Parliamentarian we spoke with explained this decision by pointing out that, in 2015, the Government thought placing the national food policy closer to the point of food production would make it easier to activate and "pull the agricultural sector in… to use and exercise [its] capacity to solve some of the hunger and health issues related to food scarcity and precarity" (Adam Vaughan, interview March 8, 2020). But by 2017, Trudeau updated the Health Minister's mandate letter to include the authorization to "Work closely with the Minister of Agriculture and Agri-Food to align these regulatory initiatives with food policy" (GoC, 2017a). Oliver Anderson of the Agriculture Agri-Food Minister's Office explained that although the mandates for both Ministers are clearly distinct, both letters "stem from the same thing. They demand some kind of collaboration between our two ministries," mostly in the form of "inter-departmental consultation" (Oliver Anderson, Interview, April 30, 2020).

Consider these efforts alongside the more narrowly conceived food and nutrition policies of Brazil[12], Finland and Norway mentioned earlier. Trudeau mandated Canada's national food policy to the Minister of Agriculture—to be housed in AAFC—a department historically focused on increasing production for export and which sees food production more as an economic driver, and less as a determinant of health. Thus, Canada took a very different path from the countries discussed above by grounding its food policy in a department rooted in the productivist paradigm of high input, high output agricultural systems (Skogstad, 2012). This decision not only resulted in the inherent tensions that come with locating an aspirationally integrative policy within a line department, but also generated significant work for the AAFC. As consultations moved forward, AAFC recognized the need for much stronger coordination than they initially anticipated (Oliver Anderson, Interview, April 30, 2020).

Governmental representatives came to view the Healthy Eating Strategy (2016) as a counterpart to the FPC. Later, the revised Canada Food Guide (GoC, 2019a) also played a pivotal role in the discussion of food security, health and nutritional disparities because it shifted the Government's stance of what was 'healthy' and 'nutritious' to consume. The Harvesters Support Grant[13] developed under the Nutrition North program also reflects collaborative and coordinative discussion of food security, health and nutrition across Government, though the program is not even named in the FPC.

The effects of these internal state activities remain fresh, and their impacts within broader society remain unclear. Sylvain Charlebois (2019) points out that "Agriculture and Agri-Food Canada is not a central department within the federal government. Expecting it to lead Health or Finance would be purely naïve, especially with only $134 million to spend over five years." FSC (2019) adds: "If the food policy has cross-government accountability and measurement mechanisms that encompass income support and anti-poverty actions, there is a clear need for a more robust and coherent approach." Fortunately, our research indicates that the cross-departmental committee which was formed to create the FPC will continue to help with its implementation (personal communication, Tom Rosser, Assistant Deputy Minister of AAFC, 2019). The seeds of a more integrative approach within the federal government may yet bear more fruit.

While a cross-departmental coordinating committee on food policy is not entirely new,[14] since 2015 the interdepartmental committee on national food policy has become a well-known entity within the public service. It includes 16 federal departments and agencies, and participation occurs between various positions of senior public servant officials.

---

[12] We deliberately include Brazil in this list because its progressive Food and Nutrition Policy does not extend across its agricultural sector including, notably, its production for export markets.

[13] Located under Nutrition North, this funding is called the Harvesters Support Grant. See: https://www.nutritionnorthcanada.gc.ca/eng/1586274027728/1586274048849

[14] Between 2010-2013, the concept of food policy remained underdeveloped but a formal inter-departmental committee of six or seven departments coordinated around the topic of food policy.

Further, this body has become an important and more efficient means for the communication of food policy ideas and efforts to the Agricultural Minister's Office and from there, to the Cabinet, thus keeping food policy high on the federal policy agenda (Anonymous interview April 30, 2020).

Notwithstanding greater internal consultation among government departments as represented by the inter-departmental committee, efforts to coordinate or develop new regulatory tools to ensure that health priorities might affect what happens in agriculture, such as reducing pesticide usage, remain absent. While Health Canada makes strategic use of regulations (e.g. restrictions of trans fats, salts and sugars in processed foods), the FPC has not been designed to encourage new thinking about regulations. As Rod MacRae (2019) points out: "there is no mention of the legislative and regulatory agenda to be implemented to remove impediments to this overarching goal and to encourage changes among actors that will advance it quickly."

On the question of inter-governmental coordination with other levels of government, the development of the FPC proved a federally-driven initiative with limited communication and coordination between the federal and provincial governments. The extent to which the policy was discussed between governments occurred through the Federal-Provincial-Territorial (FPT) meetings regarding agriculture. At these meetings, federal representatives noted progress on the file allowing for optional responses from counterparts. Both Québec and British Columbia have instituted progressive food policies, but the extent to which they provided national-level input remains unclear. It appears there was also limited provincial and territorial input into the proposed national school food program, which only came to be a clear policy priority of the federal government in 2019 via Budget 2019 and the FPC. However, since June 2019, the consideration and development for a national school food program has been moved from AAFC to Families, Communities and Social Development—perhaps a better fit given the department's capacity to move forward on the file.

Finally, it is worth restating that the FPC was only funded to $134 million. Sylvain Charlebois (2019) referred to this budget as "underwhelming at less than $4 per capita", comparing it to Québec's 2018 provincial food policy budget of $349 million, which worked out to $40 per capita. Further, Charlebois pointed out that Québec's approach was "very strategic, systematic and engaging as it offered specific policy goals and benchmarks"—both of which are still missing in the federal policy announcements of 2019.

Ecological sustainability for health?

Next, we reflect on how, over the course of its development, the FPC progressed in framing the interrelationship between food, health and environment. For example, as consultations began, the environment theme was summarized as "conserving our soil, water and air" (consultation document on file with authors).

However, the What We Heard report (2018b) noted:

> Consultation participants expressed that the preservation of agricultural land and biodiversity were key elements missing in the title of the theme and wanted to see more emphasis on both. The lack of reference to biodiversity was a concern for Indigenous participants, and, in particular, among those who noted its importance for hunting and harvesting related to country/traditional food production. (p.23)

Responding to such concerns, the final policy document (2019d) now includes, under the 'sustainability' theme: "Fostering protection and conservation of the environment, including support for the adoption of practices and technologies that contribute to clean air and water, soil health, biodiversity, sustainable use of resources (e.g. greenhouse gas emissions, energy, farm inputs, and water) and climate change mitigation and adaptation" (p.12). Further, "sustainable food practices" are identified as one of six key outcomes the policy seeks to achieve—defined as "improvements in the state of the Canadian environment through the use of practices along the food value chain that reduce environmental impact and that improve the climate resilience of the Canadian food system" (p.7)

The FPC includes an explicit environmental focus in its food waste reduction challenge. Responding to the fact that over half of Canada's food supply is lost, in November 2020, the federal government provided the details for a contest that will award up to $10.8 million to innovators for developing new business models that significantly "prevent or divert food waste at any point from farm to plate" (GoC, 2020c). To ensure that innovations get developed, the contest will use a staged approach, with expert feedback along the way, to help innovators deploy their proposed solutions. This contest as a clever step forward on a vexing policy issue, and we hope it will yield fruit. At the same time, relying on a contest as policy instrument reveals just how isolated this first iteration of the FPC is within the broader framework of government policies and guidance related to food and agriculture.

While the initiative described above represents progress, the FPC was an opportunity to employ a range of tools, including targeted investments and disincentives, to encourage forms of production and value chains which are both more environmentally sustainable and nutritious. We could have seen a target for expanding organic farming in Canada, for example, recognizing this as an important path towards sustainability. This was the direction taken in the European Commissions' *Farm to Fork Strategy* (2020) which targets 25% of agricultural land in organic farming by 2030, as part of its plan to make the EU climate-neutral by 2050. However, such tools and targets are entirely absent from the policy.

Charlebois (2019) notes a similar absence of targets and incentives around plant-based diets, pointing out that the policy…

> … does not suggest that Canada should focus on certain commodities more than others, given what lies ahead with produce and vegetable proteins. Canada's new food guide recommends a dietary regimen that is out of reach for Canada's agriculture. Growth is essential in some areas like horticulture and pulses, particularly, and no specific provisions are made for these sectors. (para. 5)

Limited policy action on this front belies the limited role that AAFC currently plays on primarily health-related policies. This is a systemic flaw to which we return below.

Another way that the FPC could serve both environmental and health goals is through its 'Buy Canadian' promotion campaign, which received $25 million in the FPC budget announcement (GoC, 2019a). In principle, environmental benefits *could* come from encouraging Canadians to support local food producers (Andrée, 2006). And encouraging Canada's brand in export markets *could* deliver environmental, economic and health benefits (Andrée et al. 2014). However, the oligopolistic structure of the global food system tends to encourage unsustainable models of production and distribution (Clapp, 2020) unless value chains are held to account to genuine sustainability standards (Friedmann, 2005). Even when such standards exist, like in the fair-trade market, pressures to relax them are pervasive (Fridell, 2014). We see potential in the National Index on Agri-Food Performance initiative currently underway to link the development of Canada's Brand to robust sustainability metrics (McInnes, 2020), but it is too soon to say if the results of this initiative, when linked to 'Buy Canadian' campaigns as its corporate partners intend, will result in substantial environmental or health dividends.

Food security and the right to food?

In late 2016, the government identified four central "potential themes" for a Canadian national food policy:
"Food Security", "Health", "Environment" and "Sustainable Growth of the Agriculture and Food Sector" (Meredith, 2016). This four-part framework posed certain limitations, as divisions among themes could preclude acting on cross-cutting solutions. For example, encouraging the substitution of plant-based protein for animal protein could address an array of health, environmental and economic goals. Nonetheless, of the four themes, "Food Security" as a concept is almost absent from the final policy. The FPC (2019d) only names food security twice: once referring to the type of organizations that gave input into the policy, and once referring to the four actions designed "to address key gaps" (p. 9). That action is entitled "Support Food Security in Northern and Indigenous Communities," which the budget funds for $15M over the period 2019-2024 (GoC 2019d, p. 9).

While this new program is welcome, Canada-wide food security is not identified as a priority outcome—especially problematic given the racialized ways in which food insecurity is perpetuated. Contradicting the absence of an ambitious Canada-wide goal to address food insecurity, the FPC does seek to align progress indicators with the UN's Sustainable Development Goals (SDGs) (GoC 2019c, p.13; see also Ballamingie et al., 2020). By signing on to the SDGs, Canada has committed to eliminating hunger by 2030, with the Minister of Families, Communities and Social Development leading this file as of the 2019 election (GoC, 2021a, February 17). Food Secure Canada caught the significance immediately, arguing (FSC, 2019)

> There are references to food security scattered through the Policy yet they are not pulled together as a specific priority outcome. If the food policy has cross-government accountability and measurement mechanisms that encompass income support and anti-poverty actions, there is a clear need for a more robust and coherent approach. (para 23)

The diminutive status of food security in final documents may be partly explained by how the discussion on this issue evolved from 2016 to 2019. Initially, food security was coupled with concepts like the "affordability" of food (Meredith, 2016). However, during the consultations, the government heard from various quarters that in most communities, food security must be understood not in terms of "affordability" but more in terms of income security. The What We Heard report of 2018 spelled this out clearly, with a subsection entitled 'addressing food security as an income issue' (GoC 2018c, p.13). It states that "a wide range of participants" called for policy solutions that "address income disparities and poverty" as root causes of food insecurity. It further notes that while affordability of food remains a high priority, especially in isolated, northern communities, many deemed the term inappropriate, "instead focusing on ensuring access to and availability of safe and nutritious food" (GoC, 2018c, p.13). In our view, Tarasuk and the PROOF Food Insecurity Policy Research network deserve credit for reframing food security as symptomatic of income insecurity—fueling a growing movement in Canada that supports the notion of a basic income guarantees (Drachner & Tarasuk, 2018). However, reframing food security as an income issue took it squarely out of the wheelhouse of AAFC, once again revealing a structural problem with this policy. While the FPC was ostensibly released by the government of Canada as a whole, the policy mainly includes actions that AAFC can execute unilaterally, and income security is not among these. Paul Taylor of FoodShare in Toronto (as quoted in Hui, 2019) sums up what the policy does to address food security bluntly: "we know the issue around food insecurity is largely around income… This [policy] is not how we respond to a crisis like food insecurity" (para.17). Again, because black, Indigenous, and people of colour (BIPOC) are subjected to economic inequalities, addressing income security has important implications for racial justice.

And what of the Right to Food? Unfortunately, this concept followed a similar trajectory to food security.

The Right to Food was invoked repeatedly during consultations but remains absent from the final policy. Among others, the *ad hoc* Working Group on the Right to Food noted at the National Food Summit in June 2017 that the right to food was absent, arguing that the food policy needed to consider De Schutter's (2012) mission to Canada report (Nadia Lambek, Interview, April 22, 2020). Shortly thereafter, in September 2017, the House of Commons Standing Committee on AAFC began a study on food policy in parallel to governmental consultations on the proposed FPC.

This committee's report recommended attention to the Right to Food, and the government's response (GoC 2018a) stated that it agreed with this recognition 'in principle' and would seek to align its policy accordingly. The What We Heard (GoC 2018a) report also gave a full paragraph to the Right to Food, stating that many participants "shared the view that a policy founded on the recognition of the right to food for all residents and communities within Canada would commit the nation to a long-term goal of ending, and not merely reducing, food insecurity" (p, 14). Following this report, however, the Right to Food disappears from the food policy process. Dr. Charles Levkoe explains this gap by noting that introducing the Right to Food in Canada's governance around agriculture and agri-food policy means fundamentally shifting the path-dependent trajectory of AAFC (Charles Levkoe, Interview May 4, 2020). We would add that the authority to invoke the Right to Food would require considerable leadership from outside AAFC, and the FPC development process was simply not structured that way.

Meaningful consultation towards Indigenous food self-determination?

Next, we consider whether the FPC furthers the goal of Indigenous food self-determination. We begin with reflections on the FPC consultation process. Indigenous Peoples and their allies raised many concerns regarding the consultation process – related to both substance and interface. During the self-led Assembly of First Nations (AFN) engagement session in October 2017, participants characterized Canada's consultation process as not inclusive enough for meaningful engagement with First Nations. Although the Government supported and funded self-led processes, not all national organizations could participate. Further, of the six regional engagement sessions that took place across Canada, only one of these reached an Indigenous audience in participation and subject matter, and even this one could not address issues relevant to specific First Nations. The session in Yellowknife, Northwest Territories, although attended by the Agriculture Minister, provided neither the means to discuss food-related issues of northern Yukon, nor the space to discuss Aboriginal Title and rights as they related to food (Levi, 2017). Collectively, aside from First Nations, Inuit and Métis, no other population in Canada holds these unique rights. The abbreviated consultations failed to afford the time and space necessary for Indigenous, state and other stakeholders to unpack these complex dynamics.

Regarding policy substance and program development, AAFC worked with Indigenous and Northern Affairs to develop relevant food policy and programs alongside the FPC, but these efforts were never seen as integral to the food policy itself. Specifically, AAFC helped to develop the Harvesters Support Grant (while revising the Nutrition North subsidies program), but since this work fell beyond the scope of its departmental authority and responsibility, it was not mentioned in the national food policy documents (led by AAFC). Similarly, in 2016, Nutrition North was already being revamped, but this process was also seen by internal government actors to lie outside the FPC consultation process (Oliver Anderson, Interview, April 30, 2020). In 2016, Nutrition North expanded to include an additional 37 isolated northern communities to help more families access affordable and healthy food (GoC, 2016). The fact that these efforts—critical to questions of Indigenous food security and health—were perceived to lay outside the food policymaking process raises further questions about how 'integrated' the intra-governmental process around food policy really was.

And what do we find within the FPC announced in 2019? The government gave "strong Indigenous food systems" … "co-developed in partnership with Indigenous communities and organizations" a high profile—as one of only six major outcomes articulated for FPC success (GoC 2019d, p.7). Further, the government situated the policy in the context of reconciliation and self-determination: "The FPC will help advance the Government of Canada's commitment to Reconciliation with Indigenous Peoples, build new relationships based on respect and partnership, and support strong and prosperous First Nations, Inuit and Métis food systems—as defined by communities themselves" (Goc 2019d, p.7) However, despite this statement, the government provided only modest new funding ($15 million) for Northern and Indigenous communities.

In sum, some promising elements related to Indigenous food systems exist in the FPC, which reflect this government's stated commitment to reconciliation. However, a questionable consultation process demands more substantive progress in this space. Given the stated goal of an integrated federal government approach, the omission of links to other key programs and efforts—like NNC, however, remains problematic (Galloway, 2017).

Healthy food environments?

Government named "Improved food-related health outcomes" as a key measure against which the policy's success should be evaluated (GoC, 2019d). They further specified the goal of "Improved health status of Canadians related to food consumption and reduced burden of diet-related disease, particularly among groups at higher risk of food insecurity" (GoC, 2019d, p.6) Further, the FPC 'outcomes' section identified: "Vibrant communities: Improved community capacity and resilience to food-related challenges". Moreover, the government noted the complementarity of the healthy eating guidelines in their revised *Canada Food Guide* as an initiative with which the FPC aligns (GoC 2019a). Notably, progress on another key effort, front-of-pack labelling of salt, sugar and fat remained stalled (and unnamed).

The policy does include two key new programs funded in 2019: a $50-million Local Food Infrastructure Fund to support community-led projects such as greenhouses, food banks and farmers' markets; and $15-million toward addressing food insecurity in northern and isolated communities by subsidizing the high cost of hunting, for example. Various civil society organizations welcomed these investments[15]—expected to encourage health-promoting food environments to some extent. However, they also cautioned that funding and vision remain limited. And, as noted above, many had advocated strongly for a national school food program, but government only signaled its commitment to work on this with the provinces and territories – raising questions about *how* (and *if*) this will be developed. Further, notwithstanding attention to food issues in Northern and Indigenous communities, there is no explicit mention of health equity as an issue that needs to be thought through in any new efforts to address nutrition-related food issues in Canada.

Meaningful stakeholder and public engagement?

In addressing stakeholder engagement, this section also tackles the issue of indicators and accountability, as the government policy combines them together through the new Canadian Food Policy Advisory Council.

One of the priority outcomes named in FPC is "Increased connections within food systems: Increased governance spaces and partnerships that connect multiple sectors and actors across the food system" (GoC, 2019e, p.6). We can see this was already occurring within the Government, even before 2015, but the combination of mandating collaboration of stakeholders and the development of a FPC appear to have a heavy influence in moving Canada towards a more integrated, partnership-based approach to food policy making.

The Canadian Food Policy Advisory Council (CFPAC) represents the key mechanism announced for increased coordination. Its role is described as follows: "… to support the implementation and evolution of the policy, build consensus and trust among food system stakeholders, provide input on the specific and measurable targets, and contribute to evidence-based decision making in order to reach the policy's outcomes." Rosser, Assistant Deputy Minister of AAFC, notes that a critical first step will be to develop metrics for monitoring progress on food policy in Canada in relation to the SDGs (Tom Rosser, personal communication, 2019). This governance mechanisms clearly builds on recommendations made by the *ad hoc* Working Group on Food Policy Governance.

---

[15] See, for example: Community Food Centers Canada (https://cfccanada.ca/en/News-Events/Latest-News/Announcements/Everyone-at-the-Table-the-federal-government-anno) and National Farmers Union (https://www.nfu.ca/national-food-policy-must-be-seen-as-a-base-for-further-action/)

Why this level of responsiveness to an '*ad hoc*' working group? As Rosser asserted in a panel on food policy governance at the Food Secure Canada conference in November of 2018: "When everyone agrees that governance is critical, it becomes a very difficult idea to ignore."

The CFPAC may be a real win for an ecological public health approach to food policy in Canada, and novel in relation to our international comparators (with stronger industry engagement).

The many organizations that lobbied for participation moving forward received the announcement favourably. For example, USC (now SeedChange) notes: "This is a chance for Canada to build on inclusive governance mechanisms already established, from food policy councils at the city level, to the Committee for World Food Security at the international level" (USC 2019, para.9). However, as noted, the CSM to the CFS includes specific lines of accountability. Organizations are nominated to represent their sectors through a complex process to ensure accountability (Anderson, 2019). Canada opted for a looser nomination process (encouraging nominees to get letters of support from diverse constituencies). A full year after it was announced, we have yet to see the composition and mandate of the CFPAC, but we recognize that questions of who is on it, and what it will do, can make a huge difference to what the FPC becomes.

Conclusion

An emergent ecological health paradigm offers new expectations of how governments engage in the food system to protect health and the environment. Since the FPC establishes goals consistent with this paradigm, we examined it through that lens in this paper. We found many positive signs in both named 'principles' and select outcomes the policy seeks to achieve. However, many of the bigger expectations for this policy remain lacking. Are the links recognized between food, health and environment? In theory, somewhat, but no new policy directions flow from this. How is food security addressed? Minimally, and certainly not as an income-security issue. Is the right to food recognized? No, despite strong advocacy to have it included. How are Indigenous food systems addressed? We see a promising start, given this government's overall stated priority of reconciliation, but limited consultation proved troubling. Is the FPC's framework consistent with food environments research? Again, we find some promising signs (e.g., a nod towards national school food, and small amounts of funding for local food infrastructure as well as Northern and Indigenous food systems), but these are all just starting points.

Do we find intra- and inter-governmental coordination, arguably the true hallmarks of an integrative or joined-up policy? Clearly, government has taken the first steps in this regard. Entrenched interests, governmental silos and path dependency within AAFC (as identified in Andrée et al., 2018) remain major challenges, but within this context new ways of working are emerging, though it is unclear whether accountability to the FPC is a priority beyond AAFC.

Do we find potential for evidence-based decision making? If the focus on metrics and SDGs remains, then perhaps, but funding limitations could be a real challenge. And is there collaboration with civil society and industry? We remain hopeful the Canadian Food Policy Advisory Council will facilitate this, but we have yet to see its makeup and full mandate. The FPC also leaves us with issues that deserve future examination, but which lay beyond the scope of our analysis in this paper, including the announced pilot project towards permanent residency for some migrant farm workers (GoC 2019b).

Overall, we do not yet see an integrative, systems-based approach to addressing food and nutrition-related health issues consistent with a paradigm of ecological public health, despite some progress made. The government presented its FPC as a collaborative, integrative effort, and our interviews reveal that the civil service sees it this way too. Similarly, MacRae (2019) notes: "AAFC appears to have finally recognized that the food economy should be a servant of other objectives, rather than a prime objective in itself" (para. 5). Steps forward have been made, though this new approach remains in its early days. Further, the FPC does not yet chart a path through many outstanding tensions within the food system. Examples of tensions include (among others): the simultaneous desire to bolster agricultural exports and local productive capacity for greater self-sufficiency; the contest between dominant, mainstream, conventional production and alternative, smaller-scale, and often community-based modes of production; the increasing loss of (and concentration of remaining) arable land coupled with the goal to produce more for a growing global population; and the shift in producer demographics, as Canada "consolidates farm operations", shrinking the total number of farms in Canada (while still increasing acreage), successors (young people, immigrants with agrarian backgrounds, second careerists) face significant challenges accessing land and capital (Qualman et al., 2018: P. 102).

So, what has changed? To see the institutional change that has occurred, consider the government's response to the standing committee report of just a year earlier. This response emphasized existing programs and policies that help to achieve food policy goals, such as the prenatal nutrition program and the much-critiqued Nutrition North program (Galloway, 2017), but offered few new ideas (GoC 2018a). It also relegated 'local food' to the purview of provinces and territories and emphasized reaching healthy eating goals through 'food literacy' rather than more interventionist policy approaches. Much of that report focused major industry concerns, such as streamlining approvals for new biotechnology innovation, using food policy to improve 'public trust' in Canadian food production and processing practices, and expanding exports by 34% by 2025 (GoC 2018a). From that governmental report, only two efforts became action areas in the FPC of 2019 ('make Canadian food the top choice at home and abroad' and action to reduce food waste) – alongside two other initiatives (community infrastructure and new Indigenous/northern programs) that do in fact signal a departure from earlier AAFC priorities and programming (Goc 2019d). The latter examples demonstrate that small changes are taking place in how the federal government is responding to food-related issues.

To implement the FPC in an integrative way consistent with an ecological public health paradigm, following MacRae (2019, para. 12), government must modify existing programs to match new policy priorities, develop "new and innovative instruments" to address challenges like food insecurity, "shift its internal decision-making to make a joined-up approach a reality", and develop effective coordinating mechanisms for FPT collaboration.

Moreover, given the inevitable tensions that will arise between health, environmental, and economic priorities, strong leadership will be required to privilege the former appropriately, and procedures must be put in place to resolve such tensions. While countries such as Brazil, Finland and Norway developed parallel policies for different sectors, Canada has the potential to be a global leader in developing the first truly integrative food policy approach.

Various unanswered questions remain at top of mind. Perhaps most critically, the perspectives and lived experiences of vulnerable sub-populations must be reflected in the development and implementation of both the FPC and its governance. Will the proposed CFPAC include these voices, and how might the interplay between equity concerns and productivist agriculture yield new insights? To what extent will the CFPAC serve as one of the coordinating mechanisms that Canada clearly needs, within the federal government, and with other levels of governments, external stakeholders and the public? Will potentially critical issues that have been sidelined to date (e.g., the Right to Food, income security, Basic Income Guarantees) make their way back onto the agenda? What effects might we expect from the growing alignment between civil society and private sector actors in a CFPAC? And, how will critical environmental and social backdrops, such as climate change and loss of biodiversity, or Reconciliation and household food insecurity (Health Canada, 2014), impact the future development of the FPC? These are the questions at the fore of our research agenda moving forward.

References

ad hoc Working Group on Food Policy Governance (2017a, October 2). *The case for a national food policy council*. Food Secure Canada. https://foodsecurecanada.org/sites/foodsecurecanada.org/files/attached_files/the_case_for_a_national_food_policy_council_final.pdf

ad hoc Working Group on Food Policy Governance (2017b, October 2). *Letter to the Honourable Lawrence MacAulay, re: Food policy governance innovation and a national food policy council*. National Food Policy Council. https://mma.prnewswire.com/media/620399/Maple_Leaf_Foods_Inc__Broad_Coalition_Calls_on_Federal_Governmen.pdf

ad hoc Working Group on the Right to Food. (2017, September 30) *Ensuring the human right to a food policy for Canada*. Food Secure Canada. https://foodsecurecanada.org/sites/foodsecurecanada.org/files/attached_files/right_to_food_submissions_on_a_food_policy_for_canada.pdf

Adelson N. (2005). The embodiment of inequity: health disparities in aboriginal Canada. Can Journal of Public Health. 96 Suppl 2(Suppl 2):S45-61. doi: 10.1007/BF03403702.

Anderson, M. (2019). Comparing the effectiveness of structures for addressing hunger and food insecurity. In. P. Andrée, J.K. Clark, C.Z. Levkoe & K. Lowitt (Eds.) *Civil society and social Movements in food system governance* (pp. 124-144). Routledge.

Andrée, P. (2007). *Genetically modified diplomacy*. Vancouver, B.C. University of British Columbia Press.

Andrée, P. (2006). And miles to go before I eat… local limitations. *Alternatives, 32*(3),19-21.

Andrée, P., Ayres, J., Bosia, M., & Massicotte, M.-J. (Eds.) (2014). *Globalization and food sovereignty: Global and local change in the new politics of food.* University of Toronto Press.

Andrée, P., Norgang, E., Clement, C., Langille, L., & Williams, P. (2016). Structural constraint and enablers to community food security in Nova Scotia, Canada. *Journal of Hunger and Environmental Nutrition, 11*(4), 456-490.

Andrée, P., Coulas, M., & Ballamingie, P. (2018). Governance recommendations from forty years of national food policy development in Canada and beyond. *Canadian Food Studies*, *5*(3), 6-27. https://www.doi.orge/10.15353/cfs-rcea.v5i3.283

Andrée, P., Coulas, M., & Ballamingie, P. (2019). Canada's national food policy: The political basis for coordination and integration. In H. McLeod-Kilmurray, N. Chalifour, & A. Lee (Eds.) *Food law and policy in Canada*. (pp. 13-36). Carswell Publishing (Thomson Reuters Canada).

Bacon, S. L., Campbell, N., Raine, K. D., Tsuyuki, R. T., Khan, N. A., Arango, M., & Kaczorowski, J. (2019). Canada's new Healthy Eating Strategy: Implications for health care professionals and a call to action. *Canadian Pharmacists Journal/Revue des pharmaciens du Canada. 152*(3), 151–157. doi: 10.1177/1715163519834891

Ballamingie, P., Blay-Palmer, A.D., Knezevic, I., Lacerda, A.E.B., Nimmo, E.R., Stahlbrand, L., & Ayalon, R. (2020). Integrating a food systems lens into discussions of urban resilience: Analyzing the policy environment. *Journal of Agriculture, Food Systems and Community Development, 9*(3), 227-243. doi: 10.5304/jafscd.2020.093.021

Barling, D., Caraher, M., & Lang, T. (2009). *Food policy: Integrating health, environment and society.* Oxford University Press.

Berger Richardson, S., & Lambek, N. (2018). Federalism and fragmentation: Addressing the possibilities of a food policy for Canada. *Canadian Food Studies, 5*(3), 28-48. doi: 10.15353/cfs-rcea.v5i3.281

Blueprint for a National Food Strategy. (2017, February). *Centre for Agriculture and Food Systems at Vermont Law School and the Harvard Law School Food Law and Policy Clinic*. https://foodstrategyblueprint.org/wp-content/uploads/2020/10/Food-Strategy-Blueprint.pdf

Bundy, D. A., Drake, L. J., & Burbano, C. (2012). School food, politics and child health. *Public Health Nutrition, 16*(06), 1012–1019.

Canadian Agri-Food Trade Alliance (CAFTA). (2021). *Agri-food exports.* https://cafta.org/agri-food-exports/

Canadian Biotechnology Action Network (CBAN). (2020, December). *Pesticides*. Canadian Biotechnology Action Network. https://cban.ca/gmos/issues/pesticides/

Charlebois, S. (2019, June 21). Canada's first food policy is pointless and underwhelming. *Ottawa Citizen.* https://ottawacitizen.com/opinion/columnists/charlebois-canadas-first-food-policy-is-pointless-and-underwhelming/

Clapp, J. (2020). *Food (3rd edition)*. Polity Press.

Community Food Centres Canada (CFCC). (2019, June 17*). Everyone at the table: The federal government announces a Food Policy for Canada*. https://cfccanada.ca/en/News-Events/Latest-News/Announcements/Everyone-at-the-Table-the-federal-government-anno

Coté, C. (2016). "Indigenizing" food sovereignty. Revitalizing Indigenous food practices and ecological knowledges in Canada and the United States. *Humanities*, *5*(3), 57. doi: 10.3390/h5030057

Dachener, N., & Tarasuk, V. (2018). Tackling household food insecurity: An essential goal of a national food policy. Special issue: Building an integrated food policy for Canada. *Canadian Food Studies, 5*(3). doi: 10.15353/cfs-rcea.v5i3.278

De Schutter, O. (2012, December 24). *Mission to Canada: Report of the special rapporteur on the right to food*. Human Rights Council. (Reference No.: GE.1218956). https://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session22/AHRC2250Add.1_English.PDF

Engler-Stringer R, Le H, Gerrard A, Muhajarine N. (2014). The community and consumer food environment and children's diet: a systematic review. *BMC Public Health*. 29(14): 522-. doi: 10.1186/1471-2458-14-522.

European Commission. (2020, September 4). *European green deal: Commission prepares new initiatives to boost the organic farming sector*. 4 September. https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1548

Fischer, F., Torgerson, D., Durnova, A., & Orsini, M. (2015). *Handbook of critical policy studies*. Edgar Elgar Publishing.

Food and Drug Act. R.S.C., 1985, c. F-27 https://laws-lois.justice.gc.ca/eng/acts/f-27/fulltext.html

Food: Locally Embedded, Globally Engaged (FLEdGE). (2016). Good food principles. https://fledgeresearch.ca/good-food-principles/

Food Secure Canada (FSC). (n.d.). *Food sovereignty*. Food Secure Canada. https://foodsecurecanada.org/who-we-are/what-food-sovereignty#:~:text=%22Food%20Sovereignty%20is%20the%20right,injustice%20in%20the%20food%20system.

Food Secure Canada (FSC). (2018, September 7). *Government releases "What We Heard" report on food policy: What does it mean?* Food Secure Canada.

https://foodsecurecanada.org/resources-news/news-media/orchestrating-better-food-system-hearing-canadians-food-policy

Food Secure Canada (FSC). (2019). *The Launch of the First 'Food Policy for Canada - Everyone at the Table*. Food Secure Canada. https://foodsecurecanada.org/first-national-food-policy-for-canada

Foucault, M. (1991). On governmentality. In G. Burchell, C. Gordon, & P. Miller (Eds.) *The Foucault effect* (pp. 87–104). University of Chicago Press.

Fridell, G. (2014). Fair trade slippages and Vietnam gaps: the ideological fantasies of fair trade coffee. *Third World Quarterly, 35*(7), 1179-1194.

Friedmann, H. (2005). From colonialism to green capitalism: Social movements and emergence of food regimes. In F. Buttel & P. McMichael (Eds.), *New Directions in the Sociology of Global Development* (pp. 227–264.) Emerald Group Publishing Limited.

Galloway, T. (2017). Canada's Northern Food Subsidy Nutrition North Canada: A Comprehensive Program Evaluation. *International Journal of Circumpolar Health, 76*(1), 1-19. doi: 10.1080/22423982.2017.1279451

Gooch, M., Bucknell, D., LaPlain, D., Dent, B., Whitehead, P., Felfel, A., Nikkel, L., & Maguire, M. (2019, January 17). *The avoidable crisis of food waste: Technical report*. Value Chain Management International and Second Harvest. https://secondharvest.ca/wp-content/uploads/2019/01/Avoidable-Crisis-of-Food-Waste-Technical-Report-January-17-2019.pdf

Government of Canada (GoC). (2012, July 25). *Household food insecurity in Canada in 2007-2008: Key statistics and graphics*. http://www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/insecurit/key-stats-cles-2007-2008-eng.php#a.

Government of Canada (GoC). (2013). [Archived]. *Canadian Health Measures Survey – Select health indicators of First Nations people living off reserve, Métis and Inuit*. Statistics Canada. Ottawa, Ontario. (Reference no. 82-624-X). https://www150.statcan.gc.ca/n1/pub/82-624-x/2013001/article/11763-eng.htm

Government of Canada (GoC). (2015, November 12). [Archived]. *Minister of Agriculture and Agri-food mandate letter*. https://pm.gc.ca/en/mandate-letters/2015/11/12/archived-minister-agriculture-and-agri-food-mandate-letter

Government of Canada (GoC). (2016). *Healthy eating strategy*. Health Canada. Ottawa, Ontario. (Cat.: H164-196/2016E-PDF). https://www.canada.ca/content/dam/canada/health-canada/migration/publications/eating-nutrition/healthy-eating-strategy-canada-strategie-saine-alimentation/alt/pub-eng.pdf

Government of Canada (GoC). (2017a, October 4). [Archived] Minister of Health mandate letter. https://pm.gc.ca/en/mandate-letters/2017/10/04/archived-minister-health-mandate-letter

Government of Canada (GoC). (2017b, December). Tenth r**eport of the Standing Committee on Agriculture and Agri-Food**: A food policy for Canada. https://www.ourcommons.ca/Content/Committee/421/AGRI/Reports/RP9324012/agrirp10/agrirp10-e.pdf

Government of Canada (GoC). (2018a). Opportunity for All: Canada's First Poverty Reduction Strategy. Employment and Social Development Canada. Ottawa, Ontario. (Cat. No.: Em12-48/2018E-PDF). https://www.canada.ca/content/dam/canada/employment-social-development/programs/poverty-reduction/reports/poverty-reduction-strategy-report-EN.pdf

Government of Canada (GoC). (2018b, March 29). *Government Response to the Tenth Report of the Standing Committee on Agriculture and Agri-Food entitled: A Food Policy for Canada*. Minister of Agriculture and Agri-Food, Ottawa, Ontario. (Quote: 238542). https://www.ourcommons.ca/content/Committee/421/AGRI/GovResponse/RP9757009/421_AGRI_Rpt10_GR/421_AGRI_Rpt10_GR-e.pdf

Government of Canada (GoC). (2018c, September). *What we heard: Consultations on a food policy for Canada*. Agriculture and Agri-food Canada. Ottawa, Ontario. (Cat.: A22-609/2018E-PDF). https://www.canada.ca/content/dam/aafc-aac/documents/20181025-en.pdf

Government of Canada (GoC). (2019a, January). Canada's Food Guide. Health Canada. Ottawa, Ontario. (Cat.: H164-257/1-2019E). https://food-guide.canada.ca/en/

Government of Canada (GoC). (2019b, March 29). Budget 2019. Finance Canada. Ottawa, Ontario. (Cat.: F1-23/3E-PDF). https://www.budget.gc.ca/2019/docs/plan/budget-2019-en.pdf

Government of Canada (GoC), (2019c, June). Taking Stock: Food Waste and Reduction in Canada. Environment and Climate Change Canada. Ottawa, ON. (Cat. No.: En4-364/2019E-PDF). https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/food-loss-waste/taking-stock.html

Government of Canada (GoC). (2019d, June 17). *"Everyone at the Table!" Government of Canada announces the first-ever Food Policy for Canada*. https://www.canada.ca/en/agriculture-agri-food/news/2019/06/everyone-at-the-table-government-of-canada-announces-the-first-ever-food-policy-for-canada.html

Government of Canada (GoC). (2019e, June 17). *Food Policy for Canada: Everyone at the Table*. Agriculture and Agri-food Canada. Ottawa, Ontario. (Cat.: A22-628/2019E-PDF; AAFC number: 12969E). https://agriculture.canada.ca/sites/default/files/legacy/pack/pdf/fpc_20190614-en.pdf

Government of Canada (GoC). (2020a, March 8). *Provinces and territories*. https://www.canada.ca/en/intergovernmental-affairs/services/provinces-territories.html

Government of Canada (GoC). (2020b, August 25). *Self-government.* Crown-Indigenous Relations and Northern Affairs Canada. https://www.rcaanc-cirnac.gc.ca/eng/1100100032275/1529354547314

Government of Canada. (2020c, November 18). Nutrition North Canada. https://www.nutritionnorthcanada.gc.ca/eng/1415385762263/1415385790537

Government of Canada (GoC). (2020d, November 19). *Government of Canada launches Food Waste Reduction Challenge*. https://www.canada.ca/en/agriculture-agri-food/news/2020/11/government-of-canada-launches-food-waste-reduction-challenge.html

Government of Canada (G0C). (2021a, February 17, 2021). Government of Canada launches is 2030 Agenda National Strategy. https://www.canada.ca/en/employment-social-development/news/2021/02/canada-launches-its-2030-agenda-national-strategy.html

Government of Canada (GoC). (2021b, April 15). *Greenhouse gas emissions*. https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/greenhouse-gas-emissions.html

Government of Canada (GoC). (2021c, May 6). T*wenty years of diabetes surveillance using the Canadian Chronic Disease Surveillance System*. https://www.canada.ca/en/public-health/services/publications/diseases-conditions/20-years-diabetes-surveillance.html

Hernandez, K., Engler-Stringer, R., Kirk, S., Wittman, H., & McNicholl, S. (2018). The case for a Canadian national school food program. *Canadian Food Studies/La Revue Canadienne Des Études Sur L'alimentation, 5*(3), 208-229. doi:15353/cfs-rcea.v5i3.260

Howard, A., & Brichta, J. (2013). [Archived] *What's to eat? Improving food literacy in Canada*. Ottawa: Conference Board of Canada. https://www.conferenceboard.ca/e-library/abstract.aspx?did=5727

Hui, A. (2019, June 17). Liberals announce national food policy with $134-million pledge to improve access. *Globe and Mail.* https://www.theglobeandmail.com/canada/article-liberals-announce-national-food-policy-with-134-million-pledge-to/

International Panel of Experts on Sustainable Food Systems (IPES-Food). (2016). *From uniformity to diversity: A paradigm shift from industrial agriculture to diversified agroecological systems*. http://www.ipes-food.org/_img/upload/files/UniformityToDiversity_FULL.pdf

Inuit Tapiriit Kanatami (ITK). (2017, November 20). *An Inuit specific approach to Canadian food policy*. https://www.itk.ca/wp-content/uploads/2019/01/ITK_Food-Policy-Report.pdf

Jindra, I. (2016). First world hunger revisited: Food charity or the right to food? *Journal of Social Work, 16*(6), 758–760. doi: 10.1177/1468017316663720

Johnson, K. (2019). Budget 2019: Canada gets a national food policy. *iPolitics*. https://ipolitics.ca/2019/03/19/budget-2019-canada-gets-a-national-food-policy/

Kuhnlein, H. (2013). What food system intervention strategies and evaluation indicators are successful with Indigenous Peoples? In Food and Agricultural Organization (Ed.), *Indigenous Peoples' food systems and well-being: Interventions and policies for healthy communities* (pp.237-256). http://www.fao.org/3/i3144e/i3144e.pdf

Krutt, C. (2019, August 21). *Pulse Canada Receives Government Funding*. Steinbach online.com. https://steinbachonline.com/ag-news/agriculture-news-mb/pulse-canada-receives-government-funding

Kepkiewicz, L., & Rotz, S. (2018). Toward anti-colonial food policy in Canada? (Im)possibilities within the settler state. *Canadian Food Studies / La Revue Canadienne Des études Sur l'alimentation*, *5*(2), 13–24. doi: 10.15353/cfs-rcea.v5i2.202

La Via Campesina. (2003, January 15). Food sovereignty. https://viacampesina.org/en/what-are-we-fighting-for/food-sovereignty-and-trade/key-documents-food-sovereignty/

Lang, T. (2009). Reshaping the food system for ecological public health. *Journal of Hunger & Environmental Nutrition, 4*, 315-335.

Lang, T., & G. Rayner. (2012). Ecological public health: The 21st century's big idea? *BMJ* 345:e5466 doi: 10.1136/bmj.e5466

Lang, T., & Barling, B. (2012). Food security and food sustainability: Reformulating the debate. *Geographical Journal, 178*(4) 313-326. doi: 10.1111/j.1475-4959.2012.00480.x

Leão, M., & Maluf, R.S. (2013). *Effective public policies and active citizenship: Brazil's experience of building a food and nutrition security system* [English translation]. https://www-cdn.oxfam.org/s3fs-public/file_attachments/rr-brazil-experience-food-nutrition-security-190214-en_3.pdf

Levi, E. (2017). *Assembly of First Nations meeting report (draft): A national First Nations food policy information session*.

Levkoe, C., & Blay-Palmer, A. (2018). Food Counts: Food systems report cards, food sovereignty and the politics of indicators. *Canadian Food Studies / La Revue Canadienne Des Études Sur L'alimentation, 5*(3), 49-75. doi: 10.15353/cfs-rcea.v5i3.277

Luppens, L., & Power, E. (2018). Aboriginal isn't just about what was before, it's what's happening now: Perspectives of Indigenous Peoples on the foods in their contemporary diets. *Canadian Food Studies/La Revue Canadienne Des études Sur l'alimentation 5*(2):142-61. https://doi.org/10.15353/cfs-rcea.v5i2.219.

MacRae, R. (2019, June 2019). Two pieces added to national food policy: many parts still missing. https://foodpolicyforcanada.info.yorku.ca/2019/06/two-pieces-added-to-national-food-policy-many-parts-still-missing/

MacRae, R., & Winfield, M. (2016). A little regulatory pluralism with your counter-hegemonic advocacy? Blending analytical frames to construct joined-up food policy in Canada. *Canadian Food Studies/La Revue Canadienne Des Études Sur L'alimentation, 3*(1), 140-194.

Mah, C., Cook, B., Rideout, K., & Minaker, L. (2016). Policy options for healthier retail food environments in city-regions. *Canadian Journal of Public Health, 107*(Suppl 1), eS64–eS67.

Mah, C., Hasdell, R., Minaker, L., Soo, S., Cook, B., & Demaio, A. (2018). Entrepreneurialism and health-promoting retail food environments in Canadian city-regions. *Health Promotion International, 33*(6), 1055–1065. doi:10.1093/heapro/dax049

Martin, S. J., & Andrée, P. (2017). Putting food sovereignty to work: Civil society governmentalities and Canada's People's Food Policy Project (2008–2011). *Journal of Civil Society, 13*(4), 374 391. doi:10.1080/17448689.2017.1355034

Martorell, H., & Abergel, E. (2018). Building joined-up agricultural policies: Lessons from Québec. *Canadian Food Studies / La Revue Canadienne Des études Sur L'alimentation*, *5*(3), 259-265. doi 10.15353/cfs-rcea.v5i3.322

Martorell, H., & Andrée, P. (2018). The commoning of food governance in Canada: Lessons for a national food policy. Routledge handbook of food as a commons. Jose Luis Vivero Pol, Tomaso Ferrando, Olivier de Schutter & Ugo Mattei, (Eds.). pp. 266–280. UK: Routledge. doi: 10.4324/9781315161495-17

McInnes, D. (2020, October). Agri-Food Sustainability Targets: A Selected Overview [Report created for Canadian Produce Marketing Association]. https://cpma.ca/docs/default-source/industry/sustainability/report-agri-food-sustainability-targets-oct-2020.pdf

McIntyre, L., Patterson, P., & Mah, C. (2018). A framing analysis of Canadian household food insecurity policy illustrates co-construction of an intractable problem, *Critical Policy Studies, 12*(2), 149-168, doi: 10.1080/19460171.2016.1253491

Meredith, G. (2016, October 14). Approach to food policy. [Slides presented at Food Secure Canada conference on behalf of Agriculture and Agri-Food Canada]. Resetting the table: Food Secure Canada 9th national assembly, Ryerson University, Toronto, Ontario. (on file with authors).

Milio, N. (1991). Toward healthy longevity: Lessons in food and nutrition policy development from Finland and Norway. *Scandinavian Journal of Social Medicine, 19*, 209-217.

Ministry of Health of Brazil. (2013) National Food and Nutrition Policy. (Cat.: CDU 613.2; OS 2013/0018). http://189.28.128.100/dab/docs/portaldab/publicacoes/national_food_nutrition_policy.pdf.

Mozzaffarian, D., Angell, S.Y., Lang, T. & Riviera, J. Y. (2018). Role of government policy in nutrition—barriers to and opportunities for healthier eating. *BMJ, 361*,k2426. doi:10.1136/bmj.k2426

Mulderrig, J., Montessori, N.M., & Farrelly, M. (2019). Introducing critical policy discourse analysis. In N. M. Montessori, J. Mulderrig & M. Farrelly. (Eds.) *Critical policy discourse analysis* (pp.1-22). Edward Elgar Publishing.

National Housing Strategy Act. *S.C. 2019, c. 29, s. 313.* https://laws-lois.justice.gc.ca/eng/acts/N-11.2/FullText.html

Native Women's Association of Canada (NWAC). (2018, May). *Food Policy: The Native Women's Association of Canada engagement results*. https://www.nwac.ca/wp-content/uploads/2018/06/NWAC_Food_Policy_Final_Report_May_2018.pdf

Nelson, C., Levkoe, C., & Kakegamic, R. (2018). The need for contextual, place-based food policies: Lessons from Northwestern Ontario. *Canadian Food Studies / La Revue Canadienne Des études Sur L'alimentation*, *5*(3), 266-272. doi.10.15353/cfs-rcea.v5i3.327

Norum, K., Bjørneboe, G-E. A., Oshaug, A., Botten, G., & Johansson, L. (2005). Nutrition and Food Policy in Norway. In Bendich A. & Deckelbaum R.J. (Eds.) Preventive Nutrition. Nutrition and Health (pp.735-751). Humana Press. doi: 10.1007/978-1-59259-880-9_29

Organization for Economic Cooperation and Development (OECD). (2021). The agricultural policy environment in Norway. https://www.oecd-ilibrary.org/sites/da42a3d4-en/index.html?itemId=/content/component/da42a3d4-en

Pesticide Action Network (PAN) North America. (2020). *Human health harms*. http://www.panna.org/pesticide-problem/human-health-harms

Pausé, C. (2019, October 14). *Changing the terminology to 'people with obesity' won't reduce stigma against fat people.* The Conversation. https://theconversation.com/changing-the-terminology-to-people-with-obesity-wont-reduce-stigma-against-fat-people-124266

Pest Control Products Act. S.C. 2002, c. 28. https://laws-lois.justice.gc.ca/eng/acts/p-9.01/

Pietinen, P., Männistö, S., Valsta, L. & Sarlio-Lähteenkorva, S. (2010). Nutrition policy in Finland. *Public health nutrition. 13*. 901-6. doi:10.1017/S1368980010001072.

PROOF. (2016a). *Fact Sheet: Children in food insecure households*.https://proof.utoronto.ca/wp-content/uploads/2016/07/children-food-insecurity-factsheet.pdf

PROOF. (2016b). *Fact Sheet: Monitoring Food Insecurity in Canada*. https://proof.utoronto.ca/wp-content/uploads/2016/06/monitoring-factsheet.pdf

Qualman, D., Akram-Lodhi, A. H., Desmarais, A., & Srinivasan, S. (2018). Forever young? The crisis of generational renewal on Canada's farms. *Canadian Food Studies / La Revue Canadienne Des études Sur L'alimentation*, *5*(3), 100-127. doi: 10.15353/cfs-rcea.v5i3.284

Recine, E. (2018, November 3). *Panel presentation on food policy governance: Democracy, accountability, inclusion, and complexity*. Organized by P. Andrée at Resetting the Table: Food Secure Canada's 10th Annual Assembly. Montréal, Québec.

Riches, G., & Silvasti, T. (2014). *First world hunger revisited: Food charity or the right to food?* (Second edition). Palgrave Macmillan.

Rideout, K., Riches, G., Ostry, A., Buckingham, D., & MacRae, R. (2007). Bringing home the right to food in Canada: Challenges and possibilities for achieving food security. *Public Health Nutrition, 10*(6), 566–573. doi: 10.1017/S1368980007246622

Roberts, M. (2020, February 3). *Black food insecurity in Canada.* Institut Broadbent Institute. https://www.broadbentinstitute.ca/black_food_insecurity_in_canada

Roos, G., Lean, M., & Anderson, A. (2002). Dietary interventions in Finland, Norway and Sweden: Nutrition policies and strategies. *Journal of Human Nutrition & Dietetics, 15*, 99–110.

Safe Foods for Canadians Act. S.C. 2012, c. 24. https://laws-lois.justice.gc.ca/eng/acts/S-1.1/ [Accessed June 21, 2021].

Skogstad, G. (2012). Chapter 1 Effecting Paradigm Change in the Canadian Agriculture and Food Sector: Towards a Multifunctionality Paradigm. In R. MacRea, E. Abergel,& M. Koç (Eds.), *Health and Sustainability in the Canadian Food System: Advocacy and Opportunity for Civil Society* (pp. 17-38). UBC Press.

Schnitter, R. & Berry, P. (2019). The Climate Change, Food Security and Human Health Nexus in Canada: A Framework to Protect Population Health. *International Journal of Environmental Research and Public Health, 16(14), 2531-2547.*

Seeds Act. R.S.C., 1985, c. S-8. https://laws-lois.justice.gc.ca/eng/acts/S-8/index.html

Standing Committee on Agriculture and Agri-Food. (2017). *A Food Policy for Canada*. December. 42nd Parliament, 1st Session. https://www.ourcommons.ca/Content/Committee/421/AGRI/Reports/RP9324012/agrirp10/agrirp10-e.pdf

Statistics Canada. (2019, February 25). Blood pressure and hypertension. https://www150.statcan.gc.ca/n1/pub/82-003-x/2019002/article/00002-eng.htm

Tarasuk, V., Fitzpatrick, S., & Ward, H. (2010, April). Nutrition inequities in Canada. *Applied Physiology, Nutrition and Metabolism, 35*(2): 172-9. doi: 10.1139/H10-002.

Tarasuk, V., & Mitchell, A. (2018). *Household food insecurity in Canada: 2017-2018*. PROOF: Food Insecurity Policy Research. https://proof.utoronto.ca/wp-content/uploads/2020/03/Household-Food-Insecurity-in-Canada-2017-2018-Full-Reportpdf.pdf

The Constitution Acts 1867-1982. https://laws.justice.gc.ca/PDF/CONST_TRD.pdf

Trudeau, J. (2019, December 13). *Minister of Families, Children, and Social Development Mandate Letter*. https://pm.gc.ca/en/mandate-letters/2019/12/13/minister-families-children-and-social-development-mandate-letter

Truth and Reconciliation Commission of Canada. (2015). *Truth and Reconciliation Commission of Canada: Calls to Action*. http://trc.ca/assets/pdf/Calls_to_Action_English2.pdf

USC Canada/SeedChange. (2019, June 18). “Everyone at the table!” SeedChange reacts to the new National Food Policy. https://weseedchange.org/canada-now-has-a-national-food-policy-what-does-it-mean/

Vol. 8 No. 2, pp. 189-262 August 2021

Canadian Food Studies La Revue canadienne des études sur l'alimentation

Original Research Article

On the front lines in food policy: Assessing the role of neighbourhoods for food systems transformation in the Montreal food polity

Anna-Liisa Aunio[a,b*] and Laurette Dubé[b]

[a] Dawson College,
[b*]McGill University

Abstract

This paper reports a multi-year design-based implementation research (DBIR) that examines practical issues, challenges, and innovations faced by the Montreal food polity in transforming food systems for alleviating food insecurity in vulnerable populations. Community organizations in three geographically distinct neighbourhoods were engaged in three distinct city-level collaborative engagement initiatives (coalition of neighbourhood roundtables; place-based philanthropy initiative- CIP; food system policy council-C-SAM). The latter city-level initiatives stemmed from different historical and institutional contexts and afforded different types and amounts of capabilities in support of community organizations. Our results underscore the rich diversity not only in how local communities organize themselves over time but also how they welcome or not scaling-up or capacity building initiatives like CIP and C-SAM. As part of the same complex and dynamic adaptive system observed at a given stage of its evolution, individual organizations and collaborative platforms observed in this research all had their respective historical trajectories and future aspirations in terms of composition, capabilities, goals, achievement and challenges. Contributions to food systems research concepts are three-fold: *Isomorphism, Discursive Frame, and Decoupling between Norms and Action.* Our research demonstrates that neighbourhoods, like nation-states, exhibit different pathways to adoption, adaptation, and decoupling action from norms when cities become part of an international regime. The outcome of cities signing on to new international agreements are similarly symbolic in nature.

*Corresponding author: Laurette.dube@mcgill.ca
DOI: 10.15353/cfs-rcea.v8i2.493
ISSN: 2292-3071

Yet organizations and neighbourhoods respond to these by adopting the discursive agendas of these new norms while, at the same time, exhibiting different pathways in policy and planning depending on their neighbourhood histories, structure, and capacity. We close with a discussion of different path dependencies and strategies that vary by location, setting opportunities for a better future with we call *convergence-by-design*.

Keywords: Food insecurity; design-based implementation research; food system transformation; complex adaptive systems

Introduction

A surfeit of research on food systems demonstrates the central role that local organizations play in the formation of, innovation in, and responses to complex problems of engagement in food systems transformation (Handforth et al., 2013; Bazerghi et al., 2016; Enns et al., 2020). Yet, despite significant mobilization and action across a diverse set of contexts, the ability to scale up and scale out successful initiatives has been more limited. This appears to be linked to the weak ties between local community organizations and with commercial actors also operating in food systems at municipal, provincial, national and global levels (Levkoe, 2015). Governance and policy studies suggest that these disconnects and limitations are not unusual, as food constitutes one of the 'wicked problems' of multi-scale, ambiguous, and seemingly intractable policy change (Hammond and Dube, 2012).

At the same time, there is ample evidence to suggest that local initiatives can potentially and indeed significantly chart a path for transformation (Addy and Dube, 2018). For instance, neighbourhood food networks (NFNs) that reach out to other neighbourhoods with similar challenges provide important sources of mutual support, resource mobilization, and serve as building blocks for wider transformation (Blay-Palmer et al., 2016). The success of local food movements can also be measured in the growth of formal organizations, proliferation of planning and policy processes at various levels of government, and in the establishment of food policy councils (Blay-Palmer, 2009).

In this paper, we argue that these advances, while significant, have also themselves differentially impacted community outcomes by channeling food movements into new norms and policy structures. Thus, while the increasing structuration and formalization of the food policy sector has expanded the normative influence of community organizations and food initiatives, it has also reshaped neighbourhoods and their ability to translate new ideas and innovations into meaningful, long-term systemic change. This is impacted first by the normative frameworks and discourses of existing international agreements focused on food security. Thus, despite very real transformations in intent, priorities, and perspectives, these discourses shape cities' adoption of international policies on food systems.

Yet, as we also demonstrate, decoupling between commitments and implementation in policy occurs not only within national policy, but also at the municipal level with non-governmental organizations and local social movements that face barriers in framing their claims in globally-defined terms. In fact, regardless of a state's opportunities in implementation and openness to innovation, success or failure can be better explained by the local rather than the national context. This is, after all, where the connection between ideas and action hits the proverbial road. Policies may be adopted or resisted by community organizations who are both implicated and often responsible for their implementation.

To assess the role of neighbourhoods in this shifting policy landscape, we draw on research in sociological institutionalism, which demonstrates the role of both normative transformation and institutionalization in non-state and civil society contexts. We employ the discursive and urban turn in sociological institutionalism to address the formalization and institutionalization of local food initiatives and movements into municipal food polities which include, but are not limited to, the expansion and adoption of municipal food policy networks. In doing so, we highlight both the success of global, normative frames on the discourse of food policy (from, for example, the Milan Urban Food Pact) and an expanding set of expectations in municipal food policy councils while, at the same time, demonstrate the differential adoption and implementation of meaningful outcomes by location.

In Montreal, the field setting for this study, the global context and emerging cultural norms on sustainable food systems and food movements contributed to the structuration and formalization of municipal and civil society food policy beginning in 2017. While these changes reinforced and extended the legitimacy of neighbourhood coalitions to formulate and shape local food policy, they also redirected and channelled the priorities and relationships between organizations in many neighbourhoods. In some cases, neighbourhoods attempted to resist and mitigate these new structures while at the same time expressing commitment to new frames and norms in food policy.

In this paper, we assess the differing responses and outcomes of local food security tables in Montreal following these changes to assess the impact of the increasing formalization of food policy on differential outcomes in local communities. We begin by reviewing the literature on place-based food initiatives, neighbourhoods, and polity studies. We then provide an overview of the Montreal food policy and food movements' structure, focusing on three features of the municipal institutional framework; neighbourhood food security roundtables, the development and contested process of the *Conseil système alimentaire montréalais* (C-SAM), or Montreal food policy council (FPC), and the launch of the Montreal Collective Impact Project (CIP), a place-based strategic philanthropic initiative. Together, these constitute an overlapping yet increasingly structured and formalized set of relations that form a municipal food polity. Our methodological framework, drawn from design-based implementation research (DBIR), has helped us map these relations and neighbourhood responses. Through research co-creation with three food security tables, we present findings from field notes at community meetings over the course of one year and forty-four interviews with community organizations.

Our results show that, while local communities found opportunities within these new arrangements, it sometimes came at the cost of neighbourhood-driven innovation. Indeed, two neighbourhoods reorganized the governance of their tables to align with the expectations of funders and municipal policy structures as they became ‘socialized’ into norms set by the CIP. We conclude with directions for understanding how decoupling between new norms and implementation occurs in municipal polity contexts and suggests pathways for research in neighbourhood-driven food system innovation and transformation.

Literature review

(Re)shaping outcomes: Food movements in the world polity

In the world-polity literature, researchers ask a central, simple question in relation to international and intergovernmental governance and state authority: why is it that the state apparatuses of so many nation-states, with such disparate economies, histories, and polities, look so structurally similar? In over two decades of analysis and research, a partial answer consistently highlights the expanding role of intergovernmental agreements and the growth of international non-governmental organizations which, post-World War II, increasingly shaped and structured a stateless, global civil society organized around liberal, Western, universal values as norms of engagement (Meyer et al., 1997; Boli and Thomas, 1997). In this, new norms are proposed, adopted, reinforced, and institutionalized through movement campaigns on issues such as human rights, then are reflected in the establishment of international agreements and state-level bureaucracies. In research on global norms and food, for example, scholars have documented the expansion of animal rights, global campaigns against controversial food consumption practices (Lien, 2004), and the assertion of cultural rights to food as a response to animal rights frames (Oh and Jackson, 2011). In this, one of the essential insights of polity studies demonstrates not only the role of culture and norms in shaping government institutions and behaviour, but also how institutionalization and the formation of governance structures channel non-government organizations’ engagement with responses to, and action in, movements and policy.

Yet, at the same time, polity research also addresses many of the contradictory and, indeed, hollow victories U.N. treaties and agreements represent. While governments may sign onto new agreements to play the global civil society game and establish agencies to channel participation, many also exhibit varying levels of decoupling of state action and policy from their symbolic commitments to international agreements. Indeed, this ‘hypocrisy paradox’ is arguably a concomitant and constitutive feature of the expansion of new institutional norms (Fallon, Aunio, and Kim, 2018).

The importance of place and neighbourhoods in food systems transformation

Neighbourhoods and local environments play an important role in reflecting and shaping food transformation (Charreire et al., 2010). This is particularly the case for large cities and urban planners who, in the tradition of Jane Jacobs (1961), have long concerned themselves with understanding what makes neighbourhoods and thus cities thrive. A substantial amount of work on food deserts, food swamps, and food environments addresses how mobility and availability of fresh food options factor into our everyday decisions about the food we eat (Mercille et al., 2013; Luan et al., 2015; Yang et al., 2019). These decisions are profoundly localized in urban environments, wherein the location of grocery stores and availability of public transportation in a neighbourhood can have a significant impact on the consumption of healthy food for the local population (Zenk et al., 2009). Many studies and thus policy intervention have been waged on the insight that inequality and racialized geographies in cities translate to fewer affordable, healthy options for residents of poor neighbourhoods (Raja et al., 2008; Walker et al., 2010). Walker et al. (2010), in their systematic review on food deserts, for example, find overwhelmingly that there are fewer grocery stores with fresh, affordable options in poorer communities. Policy implications and thus food systems transformation from this perspective has focused on using geo-spatial analysis to prioritize and site fresh food access points to improve options in disadvantaged communities (Powell et al., 2007).

However, policy initiatives and responses based on this perspective have produced mixed and contradictory results at best. For example, Abeykoon et al. (2017), in their meta-analysis of grocery store interventions, found that while improved food access increased neighbourhood satisfaction, its impact on health outcomes were limited. Similarly, Alcott and colleagues (2019), in testing models of grocery store interventions, found that changes in the food environment reduce ‘nutritional inequality’ by only ten percent in studied communities. In Montreal, as part of policy interventions focused on improving affordable food access, several programs increased amounts of fresh food yet the impact on behaviour and outcomes was limited. In a substantive review of food environment approaches in Montreal, Robitaille and Paquette (2020) concluded that the active participation of community and commercial partners is a key lesson in establishing and siting access points as observed during informal exchange among community organizations, wherein new initiatives launched by external actors quickly were jettisoned because they did not reflect the culture, community mobility, and social dynamics of the neighbourhood.

A more diverse literature on food movements and mobilization emphasizes the relationship between citizens, organizations, and actors and their efforts to transform their communities (Holt-Gimenez, 2011; Levkoe, 2015; Wekerle, 2004; Wittman, 2011).

In this, neighbourhoods face complex realities in seeking to both implement and expand innovative ideas with governance models and arrangements often being an impediment to innovation and change. A community organization with a bright idea that proposes and/or participates in alternative food initiatives (AFIs) at the local level can thus face not only the challenge of testing and implementing a new initiative, but of also navigating an existing structure and set of relationships under the auspices of good 'governance' that mitigate their potential impact.

The Study

This study draws on multiple methods and levels of engagement with food security tables and municipal policy in Montreal from 2017-2019. The authors are guided by the good food principles articulated by Food: Locally Embedded, Globally Engaged (FLEdGE); in particular, producing community-driven research that both connects people and feeds cross- sector and community collaboration in the production of food policy.[1] These principles oriented both our work with local communities and food tables in Montreal as well as our methodological framework for community-driven engagement. In the development of a broad portrait of the food systems landscape in Montreal, we also draw on the two years of research-community partnership with food security tables led by the Dawson Food Justice and Sustainability (FJS) Hub. FJS has hosted cross-neighbourhood exchanges, mini-grant support for local food security tables on research and data needs, and events co-organized with the C-SAM in the development of its strategic plan.

To develop a clear and deep understanding of roundtable responses in three neighbourhoods, we adapt the model of design-based implementation research (DBIR) in educational research on innovation and apply its central principles and insights to food systems and movements research (Fishman et al. 2013; Penuel et al., 2011). DBIR is grounded in ongoing collaboration between researchers and practitioners with the goal of understanding the practical issues, challenges, and innovations that arise in the process of implementation. Central to this is the insight that new research does not easily nor does it wholly translate into action without innovations and adaptations to theory on the part of practitioners who are key practitioners in translation, adaptation, and implementation.

While there is not a single DBIR methodology or method, four key principles guide the approach:[2] They are:

---

[1] For the good principles, see: https://fledgeresearch.ca/good-food-principles/.

[2] For an overview of the antecedents of DBIR, see Fishman, B., et al. (2013) "Design-Based Implementation Research: An Emerging Model for Transforming the Relationship of Research and Practice," *National Society for the Study of Education*, Vol. 112, Issue 2, pp. 136-156.

- a focus on persistent problems of practice from multiple stakeholders' perspectives.
- a commitment to iterative, collaborative design.
- refining theory and knowledge through practice and implementation.
- capacity building to sustain change.

In this project, we employ the principles of DBIR in the educational environment to guide partnerships and research in the community and neighbourhood environment. Our central goal is to develop capacity within local food security tables as well as co-design a research approach that supports their collective efforts to implement meaningful change. To do so, the foundation of this partnership is predicated on first supporting local communities and organizations in the practice of research. Community organizations and representatives from the three neighbourhoods were members of the research team along with the project leads and research assistants. The team met on average once per week to develop the DBIR-adapted approach, discuss ongoing questions and issues as they emerged in the research, and co-author reports and presentations. Within the neighbourhoods, community research team members were embedded within the food security table, coordinating organizations to bridge the everyday experiences and challenges of community mobilization and cross-neighbourhood and research insights.

First, the research team met to design the study and develop tools for data collection. We then presented our methodological framework to the food security tables for feedback and to discuss consent for the data collection methods. All data collection was carried out by community-based research team members who critically reflected on their experiences to develop an organizational autoethnography of the food security tables (Doloriet and Sambrook, 2012). To identify persistent problems and perspectives within the neighbourhood, community-research team members took field notes at food security roundtable meetings and other neighbourhood meetings on food as appropriate. After data collection, team members drew on the organizational autoethnographies and field notes to develop an interview protocol tailored to the neighbourhood context and the emerging perspectives on problem orientation. The research team then completed semi-structured interviews with food coalition members. Responses to interviews were coded in relation to the major perspectives and themes that emerged from semi-structured interviews. Finally, the research team presented preliminary findings to the food security table for feedback and to feed decisions on collaboration, planning, and policy at the local level. Overall, field notes were collected at nineteen neighbourhood meetings and forty-four interviews were completed at the three sites of study. The vast majority of these interviews were completed with representatives of community organizations that participate in collective planning and information-sharing focused on emergency food aid. However, in some cases table participation also included traditional religious organizations with food bank programs as well as a new cohort of organizations focused on alternative or social business models such as coops. Representatives from these initiatives were also interviewed to understand the changing nature and definition of food security within the neighborhoods.

Finally, several additional representatives who were key to food security policy and initiatives but not employed at or responsible for service delivery in each neighborhood were included in this study. These included elected officials, administrative agents, and individuals focused on collaborative planning or coordination. Overall, of the forty-four individuals interviewed, thirty-one represented local NGOs, seven were affiliated with local government as counselors or bureaucratic agents, three were from local religious organizations, two represented cooperative or social business initiatives, and one interview was completed each with a foundation and school representative. These are summarized in Table 1 below.

Table 1: Key informant interviews

Organizational type	Number of interviewees
NGO	30
government	7
Religious/charitable organizations	3
foundations	1
social business	2
school	1
Total	44

Interview questions were asked of each respondent based on field notes and, in particular, the persistent issues and questions discussed at table meetings in the year before interviews took place. All interviews for the three sites took place between June 2018 and September 2019. The vast majority of interviews lasted one hour and took place at a time and place of the respondent's choosing. In some cases, however, the interview was far longer, lasting up to two hours in length. In the case of the West Island, some interviews occurred by phone when the respondent could not meet in person. This was an accommodation to address difficulties in transportation for some respondents in the large geographic territory of the West Island.

Interviews were then coded for emerging themes and from key informants to guide the production of the presentation for each site. Finally, comparative and cross-cutting themes were identified, coded, and included in the report for each site to address commonalities in issues across the three territories.

Below, we discuss the formation and structuration of a food 'polity' in Montreal beginning in 2006 and continuing to the present. This included three overlapping, place-based perspectives on social change along with institutionalization of engagement. We then turn to the impacts of these shifts on our three sites of study: Notre-Dame-de-Grace, Verdun and the West Island in Montreal.

The international context and Montreal: The Milan pact

To date, over 210 cities globally have adopted the Milan Urban Food Policy Pact (2015), an international agreement opened in 2015 with UN support that institutionalizes cities as signatories enabling them to take action on new norms in food politics.
Launched in 2014 by the city of Milan, the pact was specifically proposed to address the increasingly important role that cities play in representation and policy. A central aspect of the pact was to empower cities and mayors to take collective global action by adopting principles for healthy, sustainable food systems (Dubbeling, et al. 2015). With a proposed thirty-seven recommended actions in six categories, signatories commit to coordinate in policy and action to develop food systems that are "inclusive, resilient, safe and diverse, that provide healthy and affordable food to all people in a human rights-based framework, that minimise waste and conserve biodiversity while adapting to and mitigating impacts of climate change" (Milan Pact, 2015). Cities also commit to documenting progress through indicators defined for the six categories: governance, sustainable diets and nutrition, social and economic equity, food production, food supply and distribution, and food waste.

The initial agreement in 2015 was adopted by over 100 cities worldwide. At present, it includes over 200 cities globally, including Montreal. Through this, signatory cities have adopted the discourse and norms of the pact, participate in global meetings that legitimize their roles as central actors in the global commons, and adopt policies to meet the six goals. Notably, the goals are universal in their definition and in the use of a common set of indicators to measure progress. They even exhibit isomorphism in food policy, establishing similar governance structures and relational arrangements in wildly different venues and contexts. This is demonstrated, for example, in the proliferation of food policy councils, both across North America and internationally. However, it is not clear whether and how this expansion has impacted existing local movements, organizations and long-standing community food networks within cities.

Montreal food context: Neighbourhoods, municipal policy councils, and systems impact

In the formation of civil society institutions and food systems policy in Montreal, three interrelated movements—each committed to mobilization and social transformation—demonstrate distinct histories and trajectories in food systems change. Two of these—neighbourhood roundtables and the Collective Impact Project (CIP)—place food on a menu of related social problems, ostensibly to be tackled together. The third—the C-SAM—explicitly formed in response to both 'bottom-up' and 'top-down' pressures from food movements to organize a coherent, systemic response at the municipal level in food policy and mobilize over 200 community actors in doing so.

The locations, histories, and orientations are all stories of increasing formalization and structuration in the Montreal food system that, in turn, can be characterized as a municipal food polity (Meyer, 1997).

Figure 1: The Montreal polity: Characteristics, attributes, structure, and governance

Organization	Territory	Structure	Organization Governance
CMTQ: Neighborhood Food Round Tables	30 tables encompassing neighbourhoods, boroughs, & independent municipalities	Self-organized, community-driven tables with local organizations as members	Coalition with membership of local tables
CIP: Collective Impact Project	17 of the 30 roundtables (listed above)	Place-based philanthropy: 8 Montreal Foundations	Board with membership of foundations, municipal agencies & CMTQ
C-SAM: Montreal Food Policy Council	33 boroughs and municipalities of Montreal agglomeration	Non-profit with mandate on food policy for Montreal agglomeration	Appointed council with nominations and selection by council renewed every two years

Neighbourhood Networks: The coalition montréalaise des tables de quartier (CMTQ).

The primary mobilizing structures that give voice to and have become a central actor in localized food policy options are part of longstanding tables of *concertation* (coordination) at the neighbourhood level in Montreal. Local tables initially emerged out of neighbourhood mobilization in communities hardest hit in the economic and social crises of 1980s Montreal. Over time, neighbourhood roundtables became the primary means for front-line service organizations and community groups to share information, coordinate activities, and advocate on behalf of residents in relation to social policy. In identifying the most significant social challenges, neighbourhoods established roundtables on employment, youth, seniors, housing, and food security. Roundtables also self-identified the 'place' of their responses and defined neighbourhood members via historical, social, and geographical relationships that resonated with local residents and citizens.

These loose, unstructured, and community-led mobilization efforts sought to sustain their impact by institutionalizing the neighbourhood roundtable model of cooperation as well as through the continuous multiplication of the roundtable model across neighbourhoods.

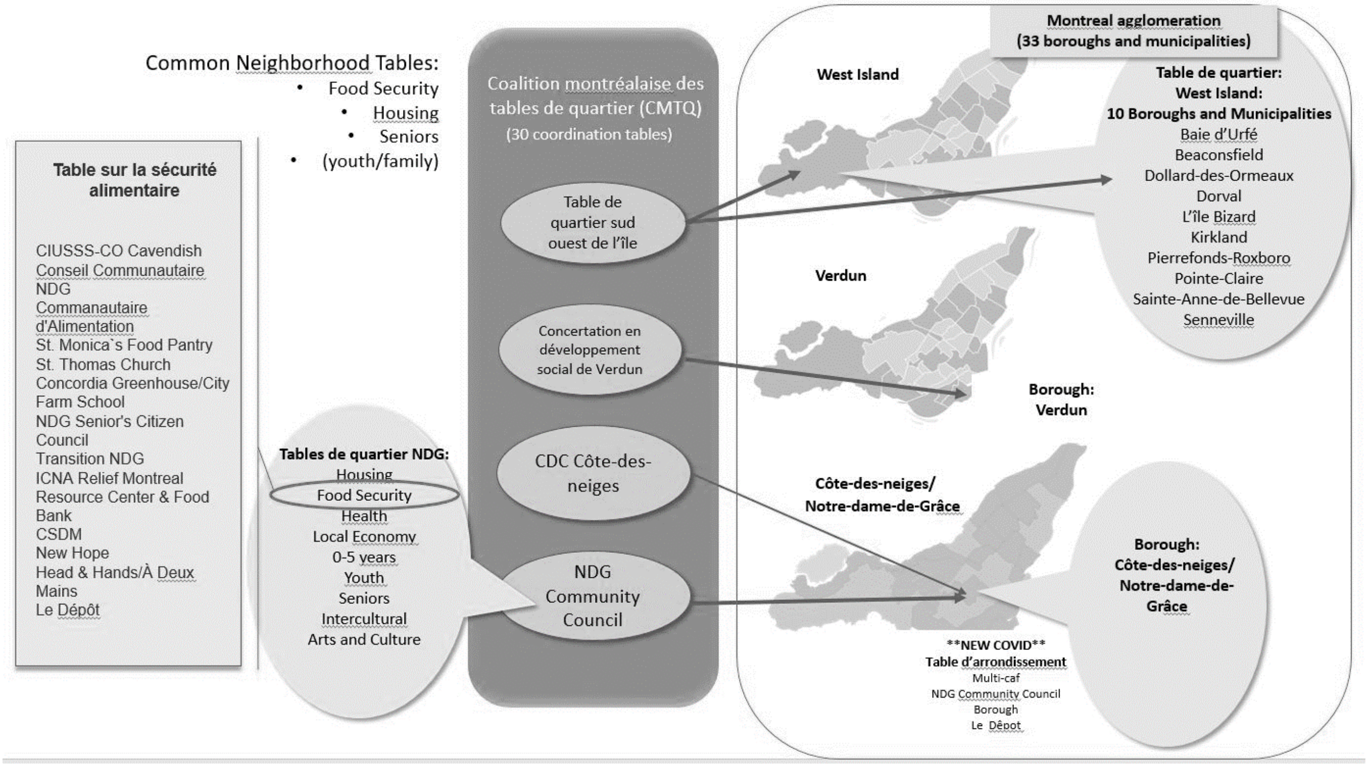
In 1996, local roundtables sought to affirm and institutionalize this work by forming the *coalition montréalaise des tables de quartier* (CMTQ), a Montreal-wide coalition of neighbourhood tables. In 2006, the Montreal Initiative to Support Local Social Development established a framework for annual funding for roundtables and further formalized and institutionalized the CMTQ and roundtable model as the primary vehicle of community engagement and mobilization to address poverty and social exclusion.

Within the municipal polity, neighbourhood roundtables represent local inter-organizational cooperation among religious organizations, charitable groups, non-profit organizations, local health and welfare agencies, schools, and local housing authorities.

They are also the primary vehicle for community-led planning to neighbourhood challenges and crises by organizing regular meetings, setting up neighbourhood-specific priorities, and publishing local resource ‘bulletins’. Local tables may be self-organized and ‘independent’ and/or coordinated by an established social development organization within each neighbourhood. Each table is a member of the CMTQ. The CMTQ meets at least once per year to discuss cross-neighbourhood responses, provide feedback on local policies, negotiate collective policy positions on issues when necessary, and, most importantly, respond to new applications for recognition to form a neighbourhood table. While CMTQ encompasses the entire island of Montreal and consists of 30 formalized member neighbourhoods, not all neighbourhoods have tables. Additionally, tables have their own histories and varying levels of cooperation; several date back to the 1980s and were responsible for leading and thus shaping the table model for cooperation and formalizing the structure of community cooperation through local tables.

This history and structure for community action is significant in addressing the outcomes and responses to the CIP and C-SAM we discuss below. Importantly, however, it is of note here that community cooperation focused on food has been and continues to be framed in the discourse of food security. This was a product of the challenges of the 1980s crisis as well as the dominant normative model of charity and emergency food aid. As we discuss below, this model has been challenged and transformed as a result of alternative food movements and other critiques of food security paradigms.

Figure 2: The CMTQ Territories, Coordination Tables, and Food Tables


Common Neighborhood Tables:
• Food Security
• Housing
• Seniors
• (youth/family)
Table sur la sécurité alimentaire
CIUSSS-CO Cavendish
Conseil Communautaire NDG
Commanautaire d'Alimentation
St. Monica`s Food Pantry
St. Thomas Church
Concordia Greenhouse/City Farm School
NDG Senior's Citizen Council
Transition NDG
ICNA Relief Montreal
Resource Center & Food Bank
CSDM
New Hope
Head & Hands/À Deux Mains
Le Dépôt
Tables de quartier NDG:
Housing
Food Security
Health
Local Economy
0-5 years
Youth
Seniors
Intercultural
Arts and Culture
Coalition montréalaise des tables de quartier (CMTQ)
(30 coordination tables)
Table de quartier sud ouest de l'île
Concertation en développement social de Verdun
CDC Côte-des-neiges
NDG Community Council
Montreal agglomeration
(33 boroughs and municipalities)
West Island
Table de quartier:
West Island:
10 Boroughs and Municipalities
Baie d'Urfé
Beaconsfield
Dollard-des-Ormeaux
Dorval
L'île Bizard
Kirkland
Pierrefonds-Roxboro
Pointe-Claire
Sainte-Anne-de-Bellevue
Senneville
Verdun
Borough:
Verdun
Côte-des-neiges/
Notre-dame-de-Grâce
Borough:
Côte-des-neiges/
Notre-dame-de-Grâce
NEW COVID
Table d'arrondissement
Multi-caf
NDG Community Council
Borough
Le Dêpot

Place-based philanthropy: The collective impact project

In January 2016, eight foundations in Montreal launched the Collective Impact Project (CIP), a collaborative philanthropic initiative led by Centraide of Greater Montreal (Centraide) that established a governance framework for coordinating financial support for neighbourhoods and communities to "intervene directly" and "catalyze changes in a complex environment" (Pole and Fontaine, 2017). The initiative quickly added non-financial partners, including the city of Montreal, the *Direction régionale de la santé publique de Montréal* (DRSP; Montreal Regional Public Health Department), and the *Coalition montréalaise des tables de quartier* (CTMQ) (Montreal Neighbourhood Tables Coalition), in order to provide strategic advice and direction to the effort. As a coordinated initiative that essentially pools the funds of several foundations, the CIP represents the largest government, philanthropic, and non-governmental partnership in Montreal aimed at transforming local communities to reduce poverty and achieve social development. In this, food security and food systems transformation are central priorities and thus avenues of funding and support.

While new to the local organizations in Montreal and, as discussed below, presenting a significant change and challenge to their coordination and work in local food security, the CIP partnership is part of a far broader movement across Europe and North America taking place over the past five years towards strategic philanthropy focused on comprehensive community change (Phillips and Scaife, 2017). Central to this shift is a reorganization of relationships between funders and community organizations in community development towards place-based and coordinated interventions. While there is no systematic review and accounting of the number of place-based strategic philanthropic initiatives at present, Phillips (2019) estimates that there are over 2,000 community foundations dedicated to place-based philanthropic giving in over fifty countries.

Place-based philanthropy proposes three major re-orientations to social development: via whole-systems approach to community change, an emphasis on community- and thus capacity-building and an emphasis on bringing in new partners for long-term, sustained revitalization (Gamble, 2010; Cabaj, 2011). Collective impact frameworks provide a 'road-map' to achieve this by setting conditions to guide funding and measure success. In Montreal, this framework consists of five such conditions: a common agenda, mutually reinforcing activities, continuous communication among the partners, a shared measurement system, and a support structure to coordinate work (Pole and Fontain, 2017). In practice, this translated into seventeen opportunities for funding for the thirty neighbourhood roundtables. In the spring of 2016, foundation partners committed $23 million over five years to support the CIP and seventeen neighbourhood roundtables were selected for a first round of funding. Importantly, the CIP partners and lead agency, Centraide, have adopted a model of strategic philanthropy usually practiced by corporations in their orientation and structure through the CIP, wherein their collective funding commitment is conceived and structured as an 'accelerator' of change for local communities.

Below, we address the impact of the support and the lack thereof by the CIP on roundtables. Here, we note that the 2016 launch marked an abrupt shift for many neighbourhood roundtables who needed to meet the five conditions of the framework to receive funding. Importantly, these conditions involve demonstrating a commitment to and success in a structural and normative framework for collaboration between neighbourhood organizations.

Municipal food policy councils: The conseil-système alimentaire montréalaise (C-SAM)

Following an informal dialogue on municipal food policy lasting over ten years, the city of Montreal officially announced in October 2018 the creation of the *Conseil-système alimentaire montréalais* (C-SAM), or Montreal Food Policy Council.

Beginning in 2011, informal dialogues were formalized as a municipal process through the office of public consultation (OCPM, 2012). These public consultations and the slow coalescing of the C-SAM as the governing structure brought together over 200 organizations in Montreal to provide insight into and contribute to the goals and strategic plan to guide the C-SAM's work shaping the roles, orientation, and local engagement with the network.

Officially, the C-SAM is the lead organization for food policy, in which governmental agencies and administrative bodies such as the Department of Public Health participate as *de jure* members of the governing council, but for which the C-SAM plays a supra-institutional role in guiding policy that is inclusive of, but not restricted to, the municipal administration.[3] Thus, while municipal administration(s) at the borough level are responsible for enacting policy and establishing plans for other policy measures, food policy is distinct in its independence, both at the neighbourhood level within local communities as well as at the 'supra' municipal level in their participation in the C-SAM.

In terms of governance models, the C-SAM represents a 'multi-stakeholder' model that includes regional and local governments, municipal agencies, foundations, and community organizations. While the C-SAM's main role has been to set priorities for policy through consultation on and approval of a strategic plan every two years, it has expanded to include other roles and partnerships in the face of crises and specific challenges. Meanwhile, as part of the health-promoting initiative called *Montréal, Métropole en Santé,* the C-SAM has the approval of the city of Montreal. It does not have an official 'mandate' to determine or implement food policy for Montreal. As such, unlike other municipal policy directives, the city and its boroughs are not accountable for implementing the strategic plan or achieving specific goals in relation to it. This highlights the two essential functions for the council: (a) in building consensus across a broad cross-section of 200 organizations to participate in its strategic planning process and (b) serving as a normative and consensual framework for action on food policy.

This is important when considering that the city of Montreal signed the Milan Urban Food Pact—an agreement that includes specific indicators of progress—and that the city of Montreal has played specific role(s) in guiding and legitimating the role of the C-SAM as the food policy organization. That said, the C-SAM is a representative organization for the Montreal region that includes both these boroughs and several independent municipalities and was designed to give equal voice to government and non-governmental organizations. In this role, one notable impact is that while the C-SAM sets a strategic framework as a council, it does not mandate policy for the city. The city administration and boroughs, in fact, can choose not to follow the strategic plan and/or simplify fail to implement its goals.

---

[3] This is to accommodate the territorial and administrative differences in the Montreal region. While the city of Montreal includes 19 boroughs, each with a borough mayor, the island of Montreal consists of an additional 14 aligned municipalities that share some of their services with the city but are independent from the administration of city government. The C-SAM includes both the boroughs for the city of Montreal and the aligned municipalities for the region.

One of the clear outcomes of the C-SAM's normative leadership on this, based on the Milan Pact, has been to redefine food security as a discursive and organizational framework for policy to first include urban agriculture initiatives and goals then redefine the overall goals of municipal commitments to align with the six categories of the pact. Key to this has been a transformation through the C-SAM process to a food systems lens and institutional agenda. This orientation, while legitimized and amplified by Milan, represents a significant departure from the food security and place-based philanthropy frames forwarded by the CMTQ and CIP organizations in Montreal.

As we discuss below, in the formation of a polity, this translates to the C-SAM as the primary guardian of Montreal's accountability to the Milan Pact all the way to engaging neighbourhood organizations to achieving particular goals. In this, the C-SAM concerns itself with governance, participation, and, most importantly, with serving as a conduit between global and local norms. This has not been without controversy and, in particular, potential decoupling between norms and action.

The Montreal food 'polity'

Beginning in 2006 with the formal, ongoing commitment to channel funding for neighbourhood coordination through the CMTQ, increasing and overlapping structuration of civil society organizations coalesced in the three main partners discussed above. In the process, they have reinforced each other's legitimacy and autonomy as vehicles for engagement in the Montreal food system. Thus, the CMTQ has become the main channel of participation and access from neighbourhoods to municipal-level policy. As an organization, it is a partner in the CIP and in the governance structure of the C-SAM. Correspondingly, the members of the C-SAM, including especially philanthropic and municipal partners, are also the primary drivers of the neighbourhood 'accelerator' model. This reflects, far more than a formal governance structure, a food 'polity' in Montreal, where, in the absence of formal governmental authority, these actors exercise normative, cultural, and 'soft power' along with institutionalized mechanisms of engagement. They thus (1) provide the primary discursive lens through which food systems transformation is framed and (2) 'channel' the participation of local organizations invested in food systems transformation into the formal, overlapping structures. While they do provide opportunities for local communities to access funding and support as well as have a formal seat at the table in municipal food policy, it remains to be seen whether these structures facilitate and accelerate broader transformation. Key factors in that broader transformation are the neighbourhood and table responses to the formalization of the C-SAM and their roles within it. This may have differential impacts as channeling and structuring participation meet neighbourhoods' responses to this formalization.

Neighbourhoods: Participation, channeling, and innovation

To gain a fuller understanding of the ways in which these arrangements have impacted communities as well as how communities have responded, we turn to the experiences and perspectives of three food tables in the Montreal polity: NDG, the West Island, and Verdun. Here, we discuss first the precipitating, or background formal and informal participation, of local communities in collective action associated with their local food system.

NDG, the West Island, and Verdun

All three sites of study vary in the size of their territories, populations, budgets, socioeconomic status (SES) and other attributes. We summarize some of the basic elements of these indicators in Table 2 using 2016 census data. As is clear, the West Island encompasses a far larger territory with a population that is comparatively wealthier than Montreal in general and the other neighborhoods included in the study.

Table 2: Size, Population and Socioeconomic Status of Study Sites

	Population	Land Area (sq km)	Median household income (after taxes)	Percent Low-income individuals
Montreal agglomeration	1942044	499.1	$46,559.00	21.30%
West Island	99599	84.5	$70,582.00	9%
Verdun	69229	9.7	$48,074.00	18%
NDG	67475	8.8	$44,627.00	23.70%

**Data drawn from 2016 Census data and neighborhood reports available at:* *http://ville.montreal.qc.ca/portal/page?_pageid=6897,68149701&_dad=portal&_schema=PORTAL*

Additionally, they vary in their organization of and participation in local food security tables as well as cooperation with one another within the table territory. While they have all also participated in the consultation process organized by the C-SAM in 2019, they differ on their participation in the CIP; both Verdun and the West Island received CIP funding while NDG did not.

They were all established at wildly different times in Montreal's history and thus their own neighbourhood's history and organization: NDG was founded in 1998, the West Island in 2015, and Verdun in 2018. They also represent varying degrees of formalization and integration into the CMTQ structures and relationships. We turn to each of these below for a brief overview of their histories and participation in food governance.

The NDG Food Security Coalition was founded in 1998 by the CLSC NDG[4] Montréal-Ouest to regroup organizations working in food security in the neighbourhood and facilitate the sharing of resources, information, and best practices. In 2014, the Coalition, with support from a Department of Public Health measure, produced a study, which identified three key sectors in NDG lacking access to fresh produce. Following a public consultation, the Coalition, with the NDG Food Depot as the fiduciary and implementer, launched a project to realize mini mobile markets in the Walkley and St-Raymond neighbourhoods. Major changes in the neighbourhood and orientation of the table occurred with the growth of the NDG Food Depot (now the Depot), which merged with *Action Commauniterre* and the *Boîte à Lunch* project to establish a stronger food security organization with an expanded mandate comprising food assistance and education, urban agriculture, and community kitchens. One consequence of this was a reduction in membership in the table; by 2016, the Food Depot was one of the only organizations in NDG with a food security mandate. The Coalition chose to review its own mandate in light of the partners' capacity to participate at the Coalition and to act on food security.

The Coalition mandated consultant Jean-Frederic Lemay to produce a study including recommendations on the future functioning of the Coalition. After performing a SWOT[5] analysis and other studies, the working committee recommended that with the limited resources available, the Coalition hold meetings two times per year and reducee the action planning cycle from 3-5 years to one year, with only two actions chosen as priorities.

Due to its own internal restructuring, the CIUSSS withdrew its community organizer as co-coordinator of the Coalition in 2018. As NDG Community Council became sole coordinator of the Coalition in the spring of 2018, they recommended to the Coalition that it not accept two of the recommendations of the working committee for lack of resources and capacity to carry out the recommendations. The Coalition developed an action plan at the beginning of 2019.

At the same time, member organizations were far more active independently. The Depot, for example, launched the *Boite à Lunch* program in 2016 only to expand the model to other neighbourhoods in successive years. In this case, however, the funding, the program model, and the expansion of the program to other neighbourhoods was launched, managed, and operated exclusively by the Depot and not with partners at the coalition level.

Unlike NDG, the *Table de Quartier Sud de l'ouest de l'île* (TQSOI) boasts a more recent history that covers a much larger territory for coordinated action. The TQSOI joined the CMTQ in 2015 and, at present, covers the cities and boroughs of Baie-d'Urfé, Beaconsfield, Dorval, Kirkland, Pointe-Claire, Sainte-Anne-de-Bellevue, and Senneville.

---

[4] CENTRES LOCAUX DE SERVICES COMMUNAUTAIRES (CLSC): CLSCs are an integral part of the Integrated University Health and Social Services Centres (CIUSSSs). They provide health and social services on their premises, but also in schools, at work and at home.

[5] Strength, Weaknesses, Opportunities, and Threats

In 2015, it published a report of the population of the South of the West Island (Ziuleva, 2015), which included a diagnosis of the needs of vulnerable populations followed by their Territorial Social Development Action Plan addressing the issues discovered in their report and diagnosis: health and social services, poverty and social exclusion, food security, housing, and transportation. The Food Security Committee was created after that. In 2018, the TQSOI published a report on poverty and food insecurity in the West Island. The awareness campaign *Make the Invisible Visible* orchestrated by the Food Security Committee that included members of the TQSOI, the Community Resource Centre (CRC), and various other community organizations, ran from June to December 2018. That campaign included a short documentary called *Hidden Hunger* launched in November 2018. Both the campaign and the documentary were successful, and in January 2019, a public forum on food security was held to consider the next steps to continue working on food security in the West Island. The following fall, the TQSOI, the CRC, and the Bread Basket (a community organization focused on food security) came together and formed a new governance model to increase collaboration and productiveness of the multiple committees involved with food security. In 2020, a Forum on Food Security was organized by the new Food Security Committee of the TQS to present food projects, initiatives, and services to the members.

In 2015-2016, the *Table de Quartier du Nord-Ouest de l'île de Montréal* (TQNOI) joined forces with the TQSOI and *Concertation Ouest de l'Île* (CODI) to apply to the Collective Impact Project from Centraide. This reflects a broader perspective on the island of Montreal that has historically and conventionally defined the "West Island" to include the areas in both the north and south of the West island. The CIP gave a boost to the collaboration in the West Island to tackle three previously identified issues: housing, transportation, and food security. The latter was chosen as the starting point for community initiatives bringing together the two tables. In 2017, the collaboration with the TQNOI for the PIC came to an end and, in 2019, due to internal conflicts and other organizational issues, the TQNOI was disbanded as a CMTQ organization. The collective process at the TQSOI focused a great deal on examining the different options available for the table and the concertation in the wake of this development.[6]

Verdun is both a locally and historically-defined borough located on the island of Montreal and is a recipient of CIP funding. *Verdun sans faim* (VSF), the food security table, was established in 2018 following the dissolution and disbanding of a previous food table. It is neither a non-profit or non-governmental organization, but rather a loose, informal coalition that is independent of the poverty and community development organization—the CDSV (*Concertation en développement social de Verdun*), which is the primary contact organization in Verdun for CMTQ membership.

---

[6]

In terms of its structure and history, the Verdun table is distinct from both NDG and the West island in several significant ways: (1) local tables were initially established as independent entities that self-organized and, previous to the CIP funding, had previously registered as an independent NGO representing the local food organizations in order to carry out projects in the neighbourhood. Following the completion of a major food bank project, the food security itself disbanded and subsequently formed a new, informal network to regroup, reorganize and focus on sharing ideas at the neighbourhood level; (2) while several organizations merged to become an important community food organization focused entirely on food programs and policies, Verdun does not have one, large overriding organization focused exclusively on food security as its mission. As a result, organizations at the table all faced resource limitations and issues associated with participation when, at the same time, their missions were not primarily focused on food security; and (3) because the Verdun food security table was originally formed as an independent group and reformed as an informal network, they lacked the capacity to apply for funding as well as the ability to legitimize the network in carrying out simple functions such as calling a meeting. At the same time, the local organization that provided support in other territories could not help the Verdun table with basic administration because of its historical relationship to the issue tables. In short, as the tables had always been independent and self-organized, local organizations had previously insisted that the CDSV adopt by-laws limiting their ability to provide coordination assistance to the tables.

Over the course of this study, these tables agreed upon and exhibited wildly different missions, models of cooperation, and varying degrees of engagement from members in the formation and implementation of local food policy. Both the West Island and Verdun received funding from the CIP during this period. NDG, however, did not.

That said, all were present for and participated in the collective planning and consultation process launched in 2018 by the C-SAM to set municipal priorities for a Montreal-wide action plan in food policy. And all, as we discuss below, were impacted by the discursive and normative mandate in the Montreal polity focused on place-based transformation. We turn to the impacts of the tables' participation in and work in Montreal below. As each table worked in the Montreal CMTQ context, each was also impacted by the informal networks across neighbourhoods as well as the values of CIP in shaping their local action plans, priorities, and disagreements for policy

West Island: Participation and collaboration

The West Island presents particular challenges to thinking about the role of neighbourhoods in food systems transformation; as a large territory encompassing a predominantly suburban population, it is difficult to make the case that one food security roundtable can somehow coordinate across ten boroughs and municipalities.

Yet the TQSOI now represents wildly different communities and needs in food security coordination and planning. That said, it is also clear that, prior to the participation of this 'neighbourhood' in the CIP process and support by that funding to define and deliver a food security agenda, very little collaboration took place between organizations across the terrain, which resulted in a less engaged and active table on the issue of food security broadly. This was reflected in the perspectives of one organization as they became involved in the CIP (PIC) process. When asked about the role of the table, the local Director of one of the table organizations replied[7]:

> « Ben y'ont jamais vraiment eu de table. Tsé j'pense que c'est ça la réalité fecque, tsé dans le cadre du PIC y'étaient impliqués sans nécessairement passer par la table de quartier fecque j'pense pas que c'est un gros manque »
>
> *There wasn't really ever a table. I just think that's the reality, to get involved in the PIC you didn't need to be involved in the table. I don't think it's a big problem.* [Interview, Respondent 11, West Island]

Related to this, one of the most puzzling 'disagreements' that emerged from our interviews in this community arose in relation to the question of collaboration. While the issue of collaboration was a source of great frustration for some organizations, it appeared to be barely a concern for others.

As one coordinator of an organization with close proximity to other table members related:

> "…So, some of them have participated and been engaged quite a bit, but some of them never really joined our collective effort. So, we tried to get the information from different ways by doing surveys by doing questionnaires or having short conversations here and there, but it's never been an ongoing process with some of them. So of course, it limits the amount of solutions and impacts that we can actually have on the system as a whole." [Interview, Respondent 20, West Island]

But when other organizations that were less connected or close to the main table were asked about collaboration, they responded that they did, in fact, collaborate with other groups. This was despite the fact that they were criticized by the organizations above for not being collaborative enough. More importantly, this basic division between organizations repeatedly arose as a point of frustration. If viewed from the position of membership in the CMTQ roundtable, this is a contradictory and strange disjuncture.

---

[7] For interviews carried out in French, the authors here and throughout the paper provide an English translation for any and all French quotes.

However, as we coded the interviews and organized them in relation to the CIP, a pattern emerged: those that were more 'central' to the table and had been heavily engaged in the CIP process emerged as the critics, while many more organizations similarly oriented yet not involved were criticized. Thus, while their orientation or actions in the food system may not have changed, their definition of and orientation towards one another as transformative actors did. They also perceived that the CIP would bring recalcitrant or 'lagging' organizations around. As one volunteer food bank coordinator responded when asked about the role of the CIP

> But yeah, there's definitely some organizations that really are focused on what they're doing and don't want to be part of research, don't want to, you know, they'll network with who they need to network with, and that's it. But I do think that's changing and especially with like the PIC project, and the research that's being done. There's definitely more like there's been a lot of awareness [...] And even the organizations that don't really want to work with someone are like, "oh, okay, there's, there's something bigger going on out there" and "oh, they're all working together. Like, I guess I should be part of that too." [Interview, Respondent 22, West Island]

Interestingly, one of the unintended consequences of this has been to reinforce the CMTQ structure on the West Island and the territory while also revealing that there is wide variation of connection to identification to the table.

As a partner to the CIP in which 'neighbourhoods' are defined by CMTQ boundaries rather than administrative or municipal districts, the prospects for deeper collaboration between organizations in transformative projects are more limited.[8]

Verdun: Negotiation and adaptation

Like the West Island, Verdun is a CIP-funded table, with support for collective planning, decision-making, and priority-setting by community organizations. Similar to the West Island, *Verdun Sans Faim*—the food security table for Verdun—established food policy and food insecurity as priority issues for the neighborhood and thus their CIP plan as part of this process.

Unlike the West Island, although VSF was formally established in 2018, Verdun had a long history of coordination and cooperation among community organizations in the neighbourhood to address social and economic issues.

---

[8] These findings may have been impacted by COVID-19. The presentation to the table occurred on Zoom after two delays to the schedule; not all table members were able to attend. However, the preliminary report was circulated to the members for commentary and final report was approved by the table.

As discussed above, a previous, formally incorporated table (as an NGO) existed before VSF, but was disbanded as the table members began to question its rationale at the end of the period of administering a grant. In the aftermath of this formalization and role as administrator of the grant, members of the table reflected on how the project changed the rationale, activities, and coordination among local organizations and decided that they needed to stop carrying out projects. Quickly, however, they also immediately began to meet through VSF following this decision. When asked about this, multiple members of the table discussed the need and desire to share ideas, information, and thus coordinate in an informal manner. As one member reported:

> We decided that we were too focused on the project when we became responsible for funding, grants, and administrating the grant. We thought this would be a good direction, but realized we were wrong. At the same time, we thought we still wanted to network and share information with each other. We just didn't want to be focused too much meeting time on talking about coordinating projects and wanted to spend more time networking" [Personal correspondence, 2018].

Notably, therefore, when the CIP was announced in 2017, Verdun organizations had just recently mobilized to relaunch a food security table in the neighborhood. As organizations reflected on their experiences with the previous table and the decision to create a new table, members were particularly sensitive to debates about whether and how they would manage an application to the CIP that required a shared mandate, coordinated activities, and a place-based, Verdun-wide project proposal.

A complicating factor in relation to this was the historical role of the table and the primary fiduciary organization in Verdun as part of the CMTQ: the *Concertation en développement social de Verdun* (CDSV). This is a key difference from other neighborhoods and tables in this study: unlike the West Island and NDG, Verdun's tables in food security, housing, and other issues had and continue to be independently organized by local organizations. Each table could thus, in their view, more easily mobilize without the priorities of the CDSV or CMTQ spilling into their work. When the CDSV was founded in 2000, like other "concertation" organizations and tables, it was formed to represent the collective issues of the neighbourhood from the 'ground up', or as an organization that would amplify the plans and activities of independent tables. Each issue table thus sends one representative to coordinating meetings hosted by the CDSV to identify each table's priorities, activities, and concerns. However, written into the CDSV's by-laws is also the prohibition of the CDSV playing any role in coordinating the issues tables. Thus, at the moment that VSF was in a fragile state, the cooperation between organizations was both a long-standing historical fact and thus expectation in the neighbourhood. Certain that they needed VSF and a table, however, members quickly disagreed about what the table's mandate should be and how it should be organized.

At the same time, all members expressed interest in and attended sessions hosted by the CSAM to set priorities for the city-wide plan.

While they were sometimes critical of this process, member organizations supported the goals of municipal planning and embraced the need for local organizations to be involved in the process.

In this context, it should be noted that, unlike the West Island, Verdun's table benefited from one, important attribute in its negotiations: while the West Island encompassed over ten boroughs and municipalities and a relatively large territory, Verdun' table and administrative borough boundaries were[?] exactly the same. Both Verdun residents and organizations have strong identification with the neighbourhood and identify with each other primarily by this affiliation and thus identity. Verdun is thus highly integrated territorially and historically but was not institutionalized as a food security table in 2018 when it applied for a funding predicated on a whole-system, place-based approach to planning and policy. The result, as all interviewees remarked, was initially disastrous: VSF almost disbanded in the process and there was a considerable amount of in-fighting between organizations over priorities, perspectives, and competition for resources.

In the first year, after several rounds of negotiation among members and between VSF and the CIP, work on food security was eventually funded through the CDSV which, in turn, created an entirely new process and organization to plan and manage CIP projects. After setting priorities in food, housing, and education, the CDSV launched the *système alimentaire Verdunois* (SAV) as the primary coordinating body for food security in this process. Notably, whether and how to participate in this process was a key source of tension and negotiation for VSF. Some saw this as an opportunity, while others worried about duplication of services and lack of coordination among local actors.

As one local counselor with a key role in the table remarked,

> *"C'est difficile de séparer la table (VSF) puis ce que la (CDSV) fait avec la système alimentaire, parce que c'est les mêmes acteurs. (...) Mais ça (...) fait en sorte que la communauté travaille pour le projet de l'espace collectif. (...) Ça fait quatorze ans que je suis dans le quartier, c'est la première fois que les acteurs en sécurité alimentaire se mettent ensemble sur un projet."*
>
> "It's hard to separate the table (VSF) and then what the (CDSV) is doing with the food system, because it's the same players. (...) But that (...) makes the community work for the collective space project. (...) I've been in the neighbourhood for fourteen years, this is the first time that food security actors have come together on a project…" [Interview, Respondent 4, Verdun].

Alternatively, other members of the VSF worried about duplication of services as well as being sidelined given the increasing role of the SAV and thus the CDSV.

This reflected, additionally, a more general concern that duplication of services is an issue in Verdun impeded both collaboration and cooperation on food system issues. As one respondent representing a long-standing local organisation reflected,

> *"On ne veut pas travailler à doublons non plus, on veut travailler en complémentarité et s'il [y a] déjà un organisme qui offre ce service-là, ça [...] veut (peut-être) dire qu'il y a quelque chose d'autre qui manque dans le quartier?"*
>
> "We do not want to duplicate services either, we want our work to be complementary. And if [there is] already an organization which offers this service, that [...] means (perhaps) that there could be something else missing in the neighbourhood?" [Interview, Respondent 6, Verdun]

In the lead up to the application submission, members of VSF were evenly divided about whether and how to respond to the CIP process. This initially had the effect of creating more tension, conflict, and suspicion among members of VSF as they each jockeyed to be the lead organization for the funding call and thus garner most of the financial resources offered by the CIP.[9] Eventually, to resolve this conflict, members approached the CDSV as the fiduciary administrator, a decision which, in turn, led to the SAV as a parallel process focused on coordinating activities for the CIP. All other planning, coordination, and collaborative work is now under the auspices of VSF, while management of the grant is coordinated by partners in the SAV. The upshot of this decision and the successful CIP application is that there are now two coordinating tables in Verdun focused on food security.

While the focus of their work is different, both VSF and the SAV are populated by the same organizations as members. Both also have a mission to coordinate and collaborate with one another in order to address food security and the local food system. In short, while there is perhaps no duplication of agendas or activities for Verdun, there is a duplication of organizational relationships, of mission and values, and coordination between members within the neighbourhood.

NDG food mobilization, innovation, and transformation

NDG, among the three neighbourhoods under study, is the only non-CIP funded initiative. It is, however, highly integrated into the CMTQ model; the food security coalition had sustained cooperation for over 20 years and NDG served on the executive committee of the CMTQ. At the same time, members of the coalition were acutely aware of the CIP in other neighbourhoods.
As one community coordinator for a large organization in the neighbourhood related:

---

[9] Because the table was not officially established as a non-governmental organization and operated as an informal network, an organization needed to be identified as the fiduciary administrator of any proposal.

> "..Collective Impact so like this is like a buzzword right now, you know that like everyone's talking about how to create collective impact and Montreal started the PIC, the Project Impact Collectif, which doesn't cover our neighbourhood but I've seen it in action in Sant Michel and I'm over there. And I think it's a really interesting initiative. And something that I think we could learn from and, and get inspired from I think, as I said before, these really like systemic, complicated, complicated adaptive problems require a lot of creativity and a lot of collaboration and thoughtfulness to address and I think the more actual like money support, and, and then political or like, you know, like whatever, just like local support for collaboration and the frameworks and the structures that would support collective impact…" [Interview, Respondent 3, NDG]

At the same time, despite the fact that the table was well-established in the community, wide divisions existed at the table about the direction of and perspectives on cooperation in the neighbourhood, including whether the table should disband, permeated informal discussions between members. At least some agreement existed that a lack of 'inspiration' or motivation was an issue. When asked about the most significant challenge facing the table, one respondent replied, "Communication between organization[s]. You know, getting everybody to rally around a collective goal. Those I would say, are from my perspective, the big problem[s]." [Interview, Respondent 1, NDG]

At least some strain also existed between members about who had 'voice' in cooperative decision-making between members which, in practice, contributed to low participation in roundtable meetings.

When asked about participating in table meetings, one participant representing a smaller food bank replied:

> "…I think I've been to like two of them, [...] it just doesn't make sense sometimes to go [to the Table meetings]. And it's a lot of talking and stuff, which is good, because you can connect and network with people, but it doesn't feel as productive in the moment as other things might be. So, I think that's a bit of a challenge. [...] If there was a way for organizations in NDG to work together, to network in a way that felt more like you're doing something at the same time, that can be [...] more motivating and get more people to actually come out. [...] And there's so many groups around that I don't even know it exist, or I don't communicate with because there's just like, there's no real way to do that. [...] The thing is I always like going. I think what I find challenging about it is when I go too, I feel like really lost kind of. And It feels like only certain voices are being heard, maybe those who can actually attend." [Interview, Respondent 6, NDG]

Yet another, more active organization, when presented with this perspective was strongly and negatively critical of a perceived lack of commitment on the part of this table member. In their view, attendance and participation in cooperative structures was one of the organization's responsibilities to the community which were, by definition, ends in themselves.

The Food Security Coalition's problems were not new: they had been struggling since at least 2015 to revitalize what had, when the table was founded, been an energetic and engaged set of community relationships and excitement about cooperative community change. Members were at a loss about what happened, particularly as table meetings were successively reduced in duration and frequency to reduce what could be perceived burden of the time commitment.

At the same time, NDG has been a neighbourhood teeming with innovative experiments in food systems mobilization and action. Transition NDG joined the table and both reflected and reinforced the expansion of the table from food security cooperation to include a more diverse array of policy and possibility orientations. Nothing exemplifies this more than the transformation and growth of the NDG Food Depot from a food security organization to a Community Food Centre recognized across Canada. The merger with *Boite à Lunch* also benefited and facilitated the cooking program's capacity to think about and develop, test, and expand their success in NDG to four other neighbourhoods in Montreal. At the same time, the Depot has been one of the most active and committed members of the neighbourhood roundtable. This raises the question: what fosters innovation and food systems transformation? What extends and deepens the impact of new initiatives? We presented these perspectives and questions to the table and its members in October 2019 with further, specific questions to foster dialogue on the points of disagreement that emerged during the course of study.

As a result of that dialogue, member organizations revised their meeting schedule to talk more often, formed a group to talk and share information informally between meetings, and recommitted to the mission.

Discussion

As each of these tables and community-wide responses represent, each of their histories, trajectories, norms, and coordination focused on self-defined neighbourhood territories in Montreal. Each incorporated representative table defines 'neighbourhood' differently. Thus, the West Island territory encompasses several boroughs and municipalities, while NDG encompasses one, historically defined community within one borough.

Isomorphism, discursive frames and norms

Neighbourhood roundtables were innovative responses to a challenging social context at a particular historical moment in Montreal where the most successful and thus longest standing neighbourhood roundtables were established in densely populated downtown and largely disadvantaged neighbourhoods. As a result, their territories were and are highly urban and correspondingly small. With the formalization of the roundtable model through the CMTQ and its subsequent extension into other milieus, both the sociodemographic and geographic contexts now vary from highly urban and poor to suburban and advantaged. Yet while roundtables have prioritized different social issues by neighbourhood, the formal structures and expectations for roundtable cooperation has been largely reproduced regardless of context.

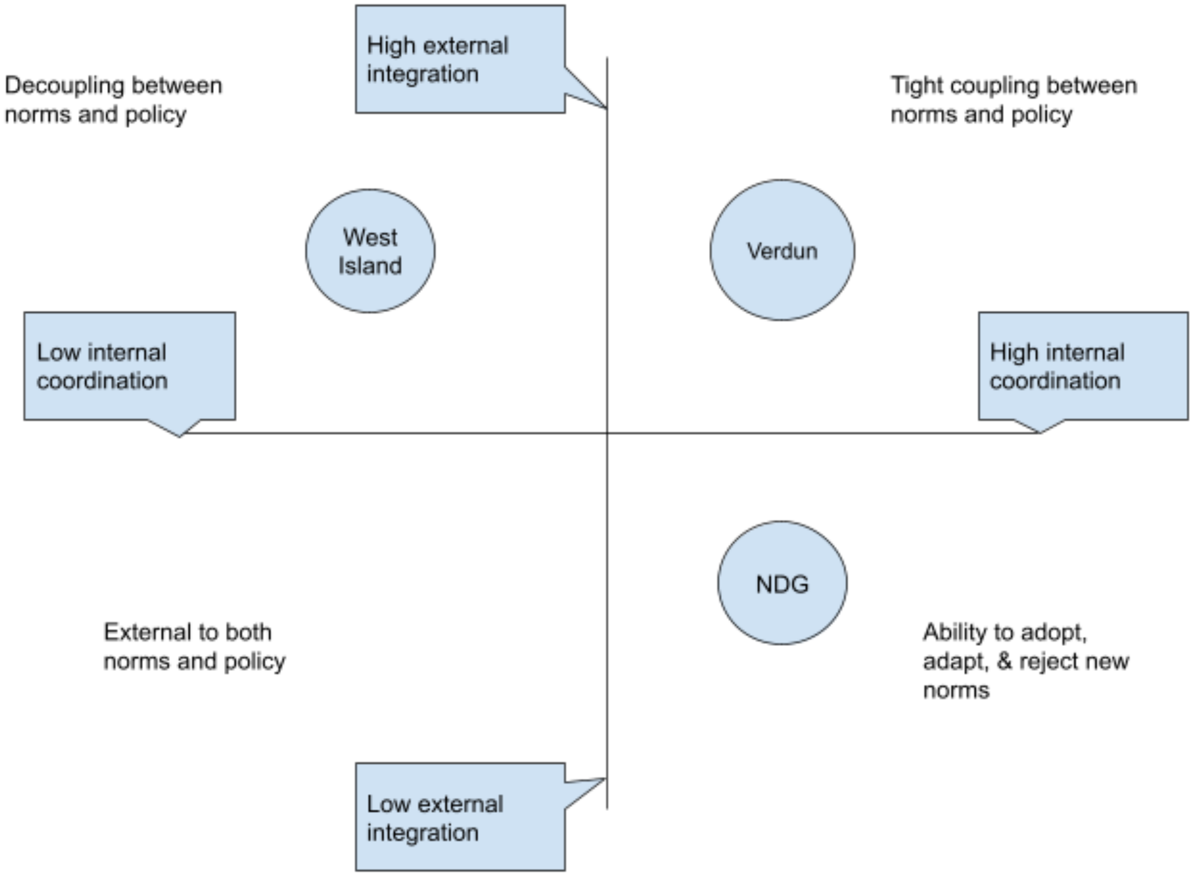
One of the themes that became clear across interviews and in neighbourhoods in Montreal was the excitement generated by the CIP 'accelerator'. Collective impact is a new, exciting buzzword and agenda that shapes the context and culture in which food organizations act. Neighbourhoods spent a great deal of time and resources aligning themselves with the perspective(s) and expectations of the CIP model. In this way, organizations and neighbourhood coalitions, similar to states and NGOs articulated in world-polity models, perceived the benefit of participating in the new orientation and governance as well as the new norms associated with place-based strategic philanthropy (Boli and Thomas, 1997). They were required, in relation to this, to establish and propose a collective project that would ostensibly marshal the cooperative and shared goals of neighbourhoods in food systems transformation. A central feature of this was to, first and foremost, collaborate in the definition of a local food project that would also entail a coordinated response among local organizations in working together to address it. Funding was contingent on a collective project that organizations agreed upon and agreed to work on together on an ongoing basis.

Neighbourhoods with well-established governance structures and collaborations could both advocate collectively for their goals and determine the structure of evaluation and stages of support. It should be noted, in this regard, that these were neighbourhoods that were tightly coupled with the overarching goals and new norms represented by the CIP process. In the case of neighbourhoods with new or nascent neighbourhood approaches, the CIP process provided opportunities for established organizations to coordinate and collaborate with one another. In this, the structure and organization of TQSOI were central to spearheading this effort and bringing in organizations for planning purposes. However, while it did lead to a first collaborative effort with specific goals achieved, wide disparities persisted in organizations' definitions of and thus perceptions of collaboration in relation to food systems transformation. Organizations involved in the CIP process shared the same definition of collaboration to include horizontal planning and relationships, communication, and shared resource planning.

Other organizations, while they shared the same goals and overall view of food security along with a commitment to transformation, defined collaboration in varying and slightly different ways that were altogether less ‘demanding’ of time and resource investment, such as sharing information and organizational differentiation. While these are both valid models of cooperation, organizations involved in the CIP planning process perceived other organizations as ‘not’ collaborating and grew frustrated with their perceived lack of commitment. Yet the CIP model offers a directed, normative model of ‘collaboration’ that includes intense commitment for members. While this is part of the model, questions remain about how transparent this is to table members, who often voiced, in addition to the experiences with other organizations in the West Island, frustration at their understanding, and the resource demands, of such an intensive model.

In the figure below, we identify key features and conditions related to whether neighbourhoods were consistent or exhibited tight ‘coupling’ between norms and implementation. In short, each neighbourhood varied in its internal organization as it became involved in the CMTQ, CIP, and C-SAM. Those that exhibited high internal coordination, such as NDG and Verdun, were far more able to negotiate their involvement in the CIP process and adopt or adapt new norms. In this, they exhibited more relative capacity to implement the goals brought into Montreal by the Milan Urban Food Policy Pact. That said, they did not always follow through in these. Verdun, for example, had low integration into the overall normative and discursive structure of these norms in Montreal even though it was funded as part of the CIP. The relatively low external integration drove more conflict between organizations and almost split the table apart at a particularly sensitive time in its history. Alternatively, the West Island, both established later and far less internally structured (both historically and currently) faced the challenge of integrating the north of the West Island and navigating the CIP funding. As a result, much of their agenda was driven by the norms and agenda of the CIP because the table was far less internally coordinated.

Figure 3: Isomorphism and coupling between norms and policy: Integration and internal coordination


High external integration
Decoupling between norms and policy
Tight coupling between norms and policy
West Island
Verdun
Low internal coordination
High internal coordination
NDG
External to both norms and policy
Ability to adopt, adapt, & reject new norms
Low external integration

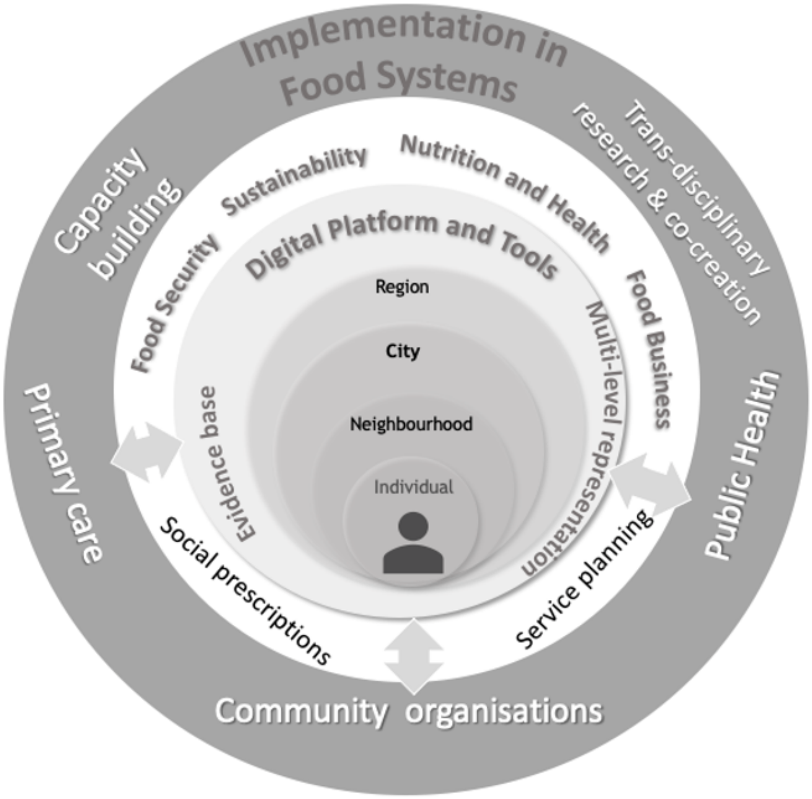
Decoupling between norms and action

As noted above, while food systems and place-based whole systems change has become a dominant normative framework for local organizations, food security roundtables exhibited far greater variation in substantive commitment to and participation of members by neighbourhood. This is despite the fact that many neighbourhoods increasingly prioritize food security as an important issue to address through collective action and continue to overwhelmingly support organizing through the roundtable model on food security issues. Some neighbourhoods exhibit strong engagement in and coordination through roundtables on food security issues while others persistently experience conflict, disengagement, and frustration in cooperation on food security issues. In the neighbourhoods we studied, there was significant evidence of the decoupling of policy formation and commitments to the CMTQ model from the realization of the goals of roundtables in practice.

While there was decoupling between normative commitments and discursive frames locally, however, this does not mean that they lack innovative ideas, the capacity or willingness to transform local food systems, or the ability to bring ideas to fruition, however. In fact, neighbourhoods are sites of innovation, experimentation, and thus the energy of food policy transformation. But they may lack the ability or capacity to document, scale up, and/or pitch their successes and innovations, particularly when these do not match the prevailing municipal and cultural food norms. Preliminary reflections and evaluations in the community as part of the CIP process affirmed that this was at least one persistent problem—the inability to realize the contributions of neighbourhoods and community organizations and scale up innovative ideas. In a 2017 evaluation of the CIP, researchers thus noted that the major limitation of the study was the underrepresentation of and thus failure to capture the perspectives of neighbourhoods in the analysis.

As within the global context, this suggests that the relative success of changes in the representative and normative commitments in municipal context depends greatly not just on local capacity, but also on resistance. In the C-SAM, local organizations continuously criticized the process as lacking transparency in public consultation. The CMTQ amplified the voices of neighbourhoods in both the CIP and C-SAM process, such that they were invited to actively engage and have a seat in the governance of the CIP and successfully changed the governance of the C-SAM to include more local voices and organizations. Yet these have also been limited: while the C-SAM have taken steps to address this in the new strategic plan with several consultation and engagement events, it is yet unclear how much the SAM can capture and harness the view ‘from the ground’.

Conclusion: A convergence-by-design approach to account for path dependencies and building sustainable and resilient communities


Implementation in Food Systems
Capacity building
Trans-disciplinary research & co-creation
Primary care
Public Health
Community organisations
Sustainability
Nutrition and Health
Food Security
Food Business
Digital Platform and Tools
Evidence base
Multi-level representation
Region
City
Neighbourhood
Individual
Social prescriptions
Service planning

Our results underscore the rich diversity in how local communities organize themselves over time as well as in how they welcome or not scaling up or capacity building initiatives like CIP and C-SAM. As part of the same complex and dynamic adaptive system, individual organizations and collaborative platforms observed in this research all had their respective historical trajectories and future aspirations in terms of composition, capabilities, goals, achievement and challenges (Addy et al., 2014; Addy and Dube, 2016; Dube et al., 2012). Accounting for such path dependencies (Struben et al., 2014) is critically important to understand and build upon this complex multiscale, multisector, and multijurisdiction dynamic. Our study not only argues against a one-size-fits-all approach but calls for convergence-by-design, organic approach to science and policy for bringing all actors around a common goal of supporting vulnerable communities. In Canada, there are large differences in food insecurity across urban areas within individual provinces (Tarasuk and Mitchell, 2020), mounting evidence such as ours that diversity at the community level also exists in local systems, impacting access to affordable and healthy food (Lake and Townshend, 2006; Rodriquez et al., 2016).

Going one step further than current implementation of research, convergence-by-design recognizes actors within and across disciplines and sectors need true **interdisciplinarity,** what the Canada Foundation for Innovation (2019) calls "convergence"—"the deep integration of disciplines, knowledge, theories, methods, data and communities" and the "deepening collaboration between researchers and research organizations in academia, the private sector and government and non-governmental organizations" to tackle complex problems (Dubé et al., 2018; Dubé et al., 2014a; Dubé et al., 2014b; Dubé, Lencucha and Drager, 2019; Dubé et al., 2020; Dubé, Pingali and Webb, 2012; Hammond and Dubé, 2012). Convergence thinking and practice demands **person-in-systems thinking** to identify the range of factors which are likely to facilitate the design, administration, and adaptation to the actors and contexts of each community. This next generation approach may be important in order to fully account for and respect such bottom-up energy while supporting and embedding these into the whole-of-society efforts to address the many *grand challenges* tied to food systems. Moving in this direction, a transformative innovation policy paradigm (Diercks et al., 2019) is progressively emerging to better account for the fact that such complex challenges concern all functional sectors of society and the economy, and that they take place not only at national but also at local, state, as well as global levels.

Acknowledgements : This work was primarily supported (SSHRC) Social Sciences and Humanities Research Council partnership program (Food: Locally Embedded, Globally Engaged (FLEdGE)- Award # 895-2015-1016. Complementary funding came from FRQSC (Fonds de recherche du Québec – Société et culture) team grant program (Award 2015-SE-179342]) and SSHRC Insight program [Award 410-2010-2258].

References

Abeykoon, A. H., Engler-Stringer, R., & Muhajarine, N. (2017). Health-related outcomes of new grocery store interventions: a systematic review. *Public health nutrition*, *20*(12), 2236–2248. https://doi.org/10.1017/S1368980017000933

Addy, N. A., & Dubé, L. (2018). Addressing Complex Societal Problems: Enabling Multiple Dimensions of Proximity to Sustain Partnerships for Collective Impact in Quebec. *Sustainability*, *10*(4), 980. https://doi.org/10.3390/su10040980

Addy, N., & Dubé, L. (2016). *Shifting societal paradigms: The case for philanthropy-university partnerships in social innovation labs.* Presentation at the Comparative and International Education Society (CIES) Conference held in Vancouver, BC March 6-10, 2016.

Addy, N. A., Poirier, A., Blouin, C., Drager, N., & Dubé, L. (2014). Whole-of-society approach for public health policymaking: a case study of polycentric governance from Quebec, Canada. *Annals of the New York Academy of Sciences*, *1331*(1), 216-229.

Allcott, H., Diamond, R., Dubé, J-P, Handbury, J, Rahkovsky, I., & Schnell, M. (2019). Food Deserts and the Causes of Nutritional Inequality, *The Quarterly Journal of Economics*, *134* (4), 1793–1844.

Aunio, A.-L., & Begg, R. (2019). *Design-Based Implementation Research, Montreal Neighbourhoods: Phase I*. Dawson College Food Justice and Sustainability Research Hub. Dawson College.

Aunio, A.-L, Dancose, F., & Begg, R. (2020). *Design-Based Implementation Research, Montreal Neighbourhoods: The West Island Municipalities and Boroughs.* Dawson College Food Justice and Sustainability Research Hub. Dawson College.

Aunio, A.-L., Fauteux, L., & Begg, R. (2020). Concertation en sécurité alimentaire à Verdun, presentation to Verdun sans faim, January 24.

Aunio, A.-L., Martorell, H., Begg, R., & Vansintjan, A. (2020). *Trousse de méthodologies communautaires pour les systèmes alimentaires de quartier. Montréal*. Pôle de recherche Justice et durabilité alimentaire du Collège Dawson. Collège Dawson.

Bazerghi, C., McKay, F. H., & Dunn, M. (2016). The role of food banks in addressing food insecurity: a systematic review. *Journal of community health*, *41*(4), 732-740.

Blay-Palmer, A. (2009). The Canadian pioneer: The genesis of urban food policy in Toronto. *International planning studies*, *14*(4), 401-416.

Blay-Palmer, A., Sonnino, R., & Custot, J. (2016). A food politics of the possible? Growing sustainable food systems through networks of knowledge. *Agriculture and Human Values*, *33*(1), 27-43.

Boli, J., & Thomas, G. M. (1997). World culture in the world polity: A century of international non-governmental organization. *American sociological review*, 171-190.

Cabaj, M. (2011). *Cities reducing poverty: How Vibrant Communities are creating comprehensive solutions to the most complex problems of our time*. Tamarack Institute for Community Engagement.

Canada Foundation for Innovation (2019). *Strategic Roadmap 2018-2023*. Ottawa. https://www.innovation.ca/sites/default/files/file_uploads/cfi-strategicroadmap-2018-2023-en.pdf

Charreire, H., Casey, R., Salze, P., Simon, C., Chaix, B., Banos, A., & Oppert, J. M. (2010). Measuring the food environment using geographical information systems: a methodological review. *Public health nutrition*, *13*(11), 1773-1785.https://doi.org/10.1017/S1368980010000753

Diercks, G., Larsen, H., & Steward, F. (2019). Transformative innovation policy: Addressing variety in an emerging policy paradigm. *Research Policy, 48*(4), 880-894.

Doloriert, C., & Sambrook, S. (2012). Organisational autoethnography, *Journal of Organizational Ethnography, 1(1),* 83 – 95.

Dubbeling, M., Hoekstra, F., Renting, H., Carey, J., & Wiskerke, J. S. C. (2015). Food on the urban agenda. *Urban Agriculture Magazine*, *29*, 3-4.

Dubé, L., McRae, C., Wu, Y. H., Ghosh, S., Allen, S., Ross, D., ... & Moore, S. (2020). Impact of the eKutir ICT-enabled social enterprise and its distributed micro-entrepreneur strategy on fruit and vegetable consumption: a quasi-experimental study in rural and urban communities in Odisha, India. *Food Policy*, *90*, 101787. https://doi.org/10.1016/j.foodpol.2019.101787

Dubé, L., Lencucha, R., Drager, A. (2019). The role of agriculture, food and nutrition. In J. Kirton and I. Kickbusch (Eds.), *Delivering universal health coverage 2030 – health a political choice* (pp. 84-86). A Global Governance Project Publication, GT Media Group Ltd.

Dubé, L., Du, P., McRae, C., Sharma, N., Jayaraman, S., & Nie, J. Y. (2018). Convergent innovation in food through big data and artificial intelligence for societal-scale inclusive growth. *Technology Innovation Management Review*, *8*(2), 49-65. http://timreview.ca/article/1139

Dubé, L., Addy, N. A., Blouin, C., & Drager, N. (2014a). From policy coherence to 21st century convergence: a whole-of-society paradigm of human and economic development. *Annals of the New York Academy of Sciences*, *1331*(1), 201-215.

Dubé, L., Jha, S., Faber, A., Struben, J., London, T., Mohapatra, A., ... & McDermott, J. (2014b). Convergent innovation for sustainable economic growth and affordable universal health care: innovating the way we innovate. *Annals of the New York Academy of Sciences*, *1331*(1), 119-141.

Dubé, L., Pingali, P., & Webb, P. (2012). Paths of convergence for agriculture, health, and wealth. *Proceedings of the National Academy of Sciences*, *109*(31), 12294-12301.

Enns, A., Ellis, M., O'Sullivan, T., Milley, P., & Kristjansson, E. (2020). A Participatory Study of the Health and Social Impact of a Community Food Centre in Ottawa, Canada. *Canadian Food Studies/La Revue canadienne des études sur l'alimentation*, *7*(1), 88-106.

Fallon, K. M., Aunio, A. L., & Kim, J. (2018). Decoupling International Agreements from Domestic Policy: The State and Soft Repression. *Human Rights Quarterly*, *40*(4), 932-961.

Fishman, B. J., Penuel, W. R., Allen, A. R., Cheng, B. H., & Sabelli, N. O. R. A. (2013). Design-based implementation research: An emerging model for transforming the relationship of research and practice. *National society for the study of education*, *112*(2), 136-156.

Gamble, J. (2010). *Evaluating Vibrant Communities 2002–2010.* Tamarack Institute for Community Engagement.

Hammond, R. A., & Dubé, L. (2012). A systems science perspective and transdisciplinary models for food and nutrition security. *Proceedings of the National Academy of Sciences*, *109*(31), 12356-12363.

Handforth, B., Hennink, M., & Schwartz, M. B. (2013). A qualitative study of nutrition-based initiatives at selected food banks in the feeding America network. *Journal of the Academy of Nutrition and Dietetics*, *113*(3), 411-415.

Holt-Gimenez, E. (2011). Food security, food justice or food sovereignty? In A.H. Alkon & J. Agyeman (Eds.), *Cultivating food justice: Race, class, and sustainability* (pp. 309-330). MIT Press.

Jacobs, J. (1961). *The Death and Life of Great American Cities*. Vintage Books.

Lake, A., & Townshend, T. (2006). Obesogenic environments: exploring the built and food environments. *The Journal of the Royal society for the Promotion of Health, 126*(6), 262-267.

Levkoe, C. Z. (2015). Strategies for forging and sustaining social movement networks: A case study of provincial food networking organizations in Canada. *Geoforum*, *58*, 174-183.

Lien, M.E. (2004). Dogs, whales and kangaroos: transnational activism and food taboos. In. M.E. Lien & B. Nerlich (Eds.), *The politics of food* (pp.179-199). Berg.

Luan, H., Law, J., & Quick, M. (2015). Identifying food deserts and swamps based on relative healthy food access: a spatio-temporal Bayesian approach. *International journal of health geographics*, *14*(1), 1-11.

Milan Urban Food Policy Pact (2015). *Milan Urban Food Policy Pact*. https://www.milanurbanfoodpolicypact.org/wp-content/uploads/2020/12/Milan-Urban-Food-Policy-Pact-EN.pdf

Mercille, G., Richard, L., Gauvin, L., Kestens, Y., Payette, H., & Daniel, M. (2013). Comparison of two indices of availability of fruits/vegetable and fast food outlets. *Journal of Urban Health*, *90*(2), 240-245.

Meyer, J. W., Boli, J., Thomas, G. M., and Ramirez, F. O. (1997). World society and the nation-state. *American Journal of sociology*, *103*(1), 144-181.

Office de consultation publique de Montréal (2012). *Annual Report (Legal deposit – Bibliothèque et archives nationales du Québec, Legal Deposit*. Library and Archives Canada, 2013, ISBN 978-2-924002-34-6).Ville de Montréal. https://ocpm.qc.ca/sites/ocpm.qc.ca/files/pdf/publications/eng/Rapport%20annuel%202012-eng.pdf

Oh, M., & Jackson, J. (2011). Animal rights vs. cultural rights: Exploring the dog meat debate in South Korea from a world polity perspective. *Journal of intercultural studies*, *32*(1), 31-56.

Penuel, W. R., Fishman, B. J., Haugan Cheng, B., & Sabelli, N. (2011). Organizing research and development at the intersection of learning, implementation, and design. *Educational researcher*, *40*(7), 331-337.

Phillips, S. (2019). The New Place of Place in Philanthropy: Community Foundations and the Community Wealth-building Movement. In *International Society for Third Sector Research (ISTR) conference,* Amsterdam, July 10-13, 2018.

Phillips, S., & Scaife, W. A. (2017). *Has Philanthropy Found its Place? Place-based Philanthropy for Community Building in Australia and Canada*. In ARNOVA 46th Annual Conference.

Pole, N., & Fontan, J. M. (2017). *Montreal's Collective Impact Project and the first stages of its partnership and operationalization.* Working paper #15. Montréal: PhiLab. https://philab.uqam.ca/wp-content/uploads/2018/01/rapportPIC.pdf

Powell, L. M., Slater, S., Mirtcheva, D., Bao, Y., & Chaloupka, F. J. (2007). Food store availability and neighborhood characteristics in the United States. *Preventive medicine*, *44*(3), 189-195.

Raja, S., Ma, C., & Yadav, P. (2008). Beyond food deserts: measuring and mapping racial disparities in neighbourhood food environments. *Journal of Planning Education and Research*, *27*(4), 469-482.

Robitaille, É., & Paquette, M. C. (2020). Development of a method to locate deserts and food swamps following the experience of a region in Quebec. *Canada. International journal of environmental research and public health, 17*(10), 3359.

Rodriguez, P. I., Dean, J., Kirkpatrick, S., Berbary, L., & Scott, S. (2016). Exploring experiences of the food environment among immigrants living in the Region of Waterloo, Ontario. *Canadian Journal of Public Health*, *107*(1), eS53-eS59. https://doi.org/10.17269/CJPH.107.5310

Struben, J., Chan, D., & Dubé, L. (2014). Policy insights from the nutritional food market transformation model: the case of obesity prevention. *Annals of the New York Academy of Sciences*, *1331*(1), 57-75.

Tarasuk, V., & Mitchell, A. (2020) *Household food insecurity in Canada, 2017-18.* Research to identify policy options to reduce food insecurity (PROOF). https://proof.utoronto.ca/wp-content/uploads/2020/03/Household-Food-Insecurity-in-Canada-2017-2018-Full-Reportpdf.pdf

Walker, R. E., Keane, C. R., & Burke, J. G. (2010). Disparities and access to healthy food in the United States: A review of food deserts literature. *Health and place*, *16*(5), 876-884.

Wekerle, G. R. (2004). Food justice movements: Policy, planning, and networks. *Journal of Planning Education and Research*, *23*(4), 378-386.

Wittman, H. (2011). Food sovereignty: a new rights framework for food and nature? *Environment and Society, 2*(1), 87-105.

Yang, M., Wang, H., & Qiu, F. (2020). Neighbourhood food environments revisited: When food deserts meet food swamps. *The Canadian Geographer/Le Géographe canadien*, *64*(1), 135-154.

Zenk, S. N., Lachance, L. L., Schulz, A. J., Mentz, G., Kannan, S., & Ridella, W. (2009). Neighborhood retail food environment and fruit and vegetable intake in a multiethnic urban population. *American Journal of Health Promotion*, *23*(4), 255-264. https://doi.org/10.4278/ajhp.071204127

Ziuleva, A. (2015). *Portrait of the Population of the Southern West Island*. The Table de Quartier Sud de l'Ouest-de-l'Île (TQSOI)

Canadian Food Studies La Revue canadienne des études sur l’alimentation

c/o Department of Health Sciences
Lakehead University
955 Oliver Road
Thunder Bay (ON) P7B 5E1

ISSN: 2292-3071

canadianfoodstudies.ca