Review Article

The evolution of Haudenosaunee food guidance: Building capacity toward the sustainability of local food environments in the community of Six Nations of the Grand River

Hannah Tait Neufeld\textsuperscript{a}\textsuperscript{*} and Adrianne Xavier\textsuperscript{b}

\textsuperscript{a} University of Waterloo
\textsuperscript{b} McMaster University

Abstract

The emerging literature on the Indigenous food movement identifies community involvement, family-centred food education and re-establishing a relationship with the land as essential to restoring sustainable food systems, land and water access. These processes of reclamation have similarly evolved through collaborative community processes and guiding practices described in this chapter that have taken place in the community of Six Nations of the Grand River. The evolution of social movements and relationships to reinforce patterns of support through the transference of knowledge has led to the “guidance” that continues to adjust and change. This unique form of guidance is not in the form of a westernized practice of creating formalized lists meant for general distribution with the intent of controlling food-based practices. In the community of Six Nations, guidance and practice are informed and conveyed by people and supported through established networks and relationships. This type of guidance, therefore, is living and continues to evolve. As such it is not conveyed in such a prescriptive manner using lists and absolute categories. The Haudenosaunee food guide illustrated in Figure 2 is based on collective knowledge and land-based practices that are meant to be shared, adapted and applied by all members of the community. It is therefore not a static form of guidance as the foods and their connections to land and people evolve as reciprocal relationships.

Keywords: Food guidance; traditional foods; Haudenosaunee; community; food knowledge; Indigenous health

*Corresponding author: hannah.neufeld@uwaterloo.ca
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Introduction

Large-scale forces associated with the legacy of colonization continue to compromise Indigenous Peoples’ access to the land and resources (Richmond & Ross, 2009), and have contributed toward a decline in procurement of Indigenous or traditional foods\(^1\) and the social, cultural, and economic benefits they provide. The effects of limited or reduced access to these foods among Indigenous populations are leading to their gradual replacement with marketed or pre-manufactured products (Egeland et al., 2011). This transition has had dramatic consequences for dietary quality and cultural identity, along with the health and maintenance of Indigenous food systems. Indigenous foods are widely recognized to enhance the holistic wellbeing of Indigenous Peoples (Schuster et al., 2011). However, only a quarter of First Nation adults consume wild meats from their local environments and fewer (18.6%) include locally harvested plants and berries as part of their diets (First Nations Information Governance Centre, 2014).

This nutrition transition away from nutrient-rich, locally harvested foods has resulted in reduced dietary quality associated with the increasing prevalence of non-communicable conditions (Schuster et al., 2011). A dietary shift toward often highly processed marketed foods has had dramatic consequences for the health of individuals, families, and communities (Egeland et al., 2011). Quality may be compromised, as store-bought foods can contain more saturated fats and simple sugars or refined carbohydrates, while Indigenous foods are more nutrient dense (Gagne et al., 2012). There have been similar impacts on the maintenance and integrity of Indigenous food knowledge systems within communities and across generations (Lambden et al., 2007; Richmond et al., 2020). A more comprehensive understanding of these structural determinants impacting food choice guidance is necessary to address and combat these complex trends impacting Indigenous food systems and practices.

Processes of colonization have led to high levels of food insecurity and the degradation of food environments by depriving Indigenous Peoples of land, culture, language, and relationships (Cidro et al., 2015; Grey & Patel, 2014). While Indigenous Peoples have been disconnected from their land, food, and medicines through these direct and indirect processes of environmental dispossession, political and legal authority over Nations and Territories has been interrupted by the imposition of settler-colonial state structures, resulting in detrimental impacts on physical and social environments (Richmond & Ross, 2009). These lingering structural determinants including policies negatively impacting Indigenous food knowledge and sovereignty practices. This paper will describe the implementation and evolving outcomes of Haudenosaunee\(^2\) community-based programming within southern Ontario, reflective of impacts beyond individualized health and nutrient intake, and with an emphasis on collective wellbeing. We will also propose at the start of this discussion a link between the concept of food sovereignty and

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\(^1\) Traditional foods, defined as plants and animals harvested from the local environment are central to health and cultural integrity for Indigenous Peoples worldwide (Gagne et al., 2012; Raschke & Cheema, 2008).

\(^2\) Haudenosau nee means ‘people of the longhouse’, commonly referred to as ‘Iroquois’ or ‘Six Nations’ originally made up of Mohawk, Cayuga, Oneida, Seneca and Onondaga Nations, and eventually Tuscarora Nations.
food guidance among Indigenous Peoples within Canada. One of the outcomes that will be described, within the context of other existing more generic Indigenous-focused food guidance, is the development of a *Haudenosaunee Food Guide*. The steps that led to this locally produced community resource will be presented, in the context of building collective knowledge and community capacity around local food procurement with the initiation of the *Healthy Roots* and *Our Sustenance* initiatives and the revitalization of food sovereignty practices within the Nation and Territory.

**Background**

Research from various disciplines has identified an interdependent relationship between Indigenous Peoples and their local ecosystems. The health of the land and community are synonymous, nurtured through relationships to the physical environment and providing a healthy basis for ways of living, and overall wellbeing (Adelson, 2000; Burgess et al., 2005; Ermine et al., 2005; Richmond & Ross, 2009). These relationships between people and their local environments have been sustained through oral traditions and histories. Indigenous knowledge (IK) refers to the traditions, values, and belief systems that have enabled many generations to practice healthy relationships with their ecological, built, and social environments (Cajete, 2000). Indigenous foods originate from the ecological environment, either from cultivating, wild harvesting, or hunting (Kuhnlein et al., 2013). The procurement, preparation, and consumption of Indigenous foods also hold important significance for the preservation of IK as they are housed within their own unique Indigenous food system. Indigenous food systems encompass the socio-cultural meanings, patterns of acquisition, processing techniques, use, composition, health, and nutritional consequences for the Indigenous Peoples utilizing these foods (Kuhnlein & Receveur, 1996). The relationship that Indigenous people have with their unique food and ecosystems encourages practices, values, and traditions that perpetuate healthy communities.

Colonial policies have disrupted, denied access to, and in many cases decimated land and water sources of food and medicines. A lack of access to clean drinking water and adequate food remain key health concerns for Indigenous families and communities. The Truth and Reconciliation Commission (TRC) explicitly calls for actions that close these gaps in health equity, including food security (Truth and Reconciliation Commission of Canada, 2015). Food security within diverse Indigenous contexts, however, should not be narrowly defined as having enough to eat or sufficient household funds to purchase processed foods that may be more accessible. To restore sustainable relationships to the land, culture, and communities, a resurgence of Indigenous foods, including community roles and responsibilities to protect lands and food systems, are necessary acts of resurgence and form pathways towards reconciliation, along with social and environmental justice (Cidro et al., 2015).
While a broad body of research has investigated the roots of cultural change and environmental contamination among Inuit and other northern and Circumpolar peoples, there is a significant gap in research exploring the mechanisms that link processes of environmental dispossession with Indigenous food systems among populations within southern regions of Canada (Corntassel, 2012; Organ et al., 2014; Willows, 2005). Environmental dispossession refers to the processes that have reduced Indigenous Peoples’ access to land and resources (Richmond & Ross, 2009). These processes can affect health in direct and indirect ways. Lost connections to physical environments and Indigenous foods are examples of the direct effects of environmental dispossession. Even though the origins of these concerns may reflect global trends, such as the overall environmental health of food systems in the context of climate change, the mechanisms or determinants by which access to Indigenous foods has been reduced are unique. For example, the impacts of colonialism and forced assimilation associated with urbanization have eroded the relationships that have existed between Indigenous Peoples, within families, communities and local ecosystems. The health of communities has also been indirectly impacted through assimilative actions taken by the federal government to disconnect communities from their lands and knowledge systems, for example through the residential school system. The loss of language, ties to Elders, and teachings isolated children from their roots and disrupted the transmission of knowledge to subsequent generations (Elias et al., 2012). These influences have not only reduced physical access to foods available in the physical environment (Organ et al., 2014), they have also stressed relationships to maintain crucial social structures for the transmission of IK.

It has been suggested that IK can be represented as a singular construct or cultural practice, ignoring multiple expressions, including: (1) knowledge which is handed down and based on stories and experiences of a people through time; (2) empirical knowledge that is gained through careful observation and practice over time; (3) revealed knowledge which is gained through vision, ritual, and ceremony; and, (4) contemporary knowledge gained through contemporary experience and problem solving (Cajete, 2014). All four expressions are important to understanding how IK may be expressed and experienced and, ultimately, how IKs are relevant to designing and implementing health interventions at individual and policy levels within Indigenous communities (Walters et al., 2018).

Guidelines for behavioural change should incorporate cultural knowledge related to food, activity, and medicines along with relational and regenerative practices that draw on historical structures and roles (Walters et al., 2018). Without acknowledging the underlying deep epistemological and cosmological contexts that drive health and wellbeing among Indigenous Peoples, this approach may unknowingly diminish the salience and power of cultural practices. It can further reinforce stereotypes. Health practitioners and policy makers cannot simply take western structures of knowledge, and ‘Add Indigenous and Stir’ (Grossman, 2014). There must be an equalization of power and valuing of different forms of knowledge or ways of knowing.
Local context

Urban and reserve-based Indigenous families within southern regions of Canada frequently experience food insecurity, as well as more limited access to Indigenous foods or being out on the land (Richmond et al., 2020). Contact with Elders, and increased cultural capacity around foods are important determinants of food security, nutritional health and wellbeing (Neufeld et al., 2017). Indigenous communities are not only becoming more urban, but over-represented by youth and children, compared to the Canadian population in general. There is a need therefore to develop holistic frameworks that inform policies to address the health, social and cultural needs of these diverse populations. Health determinants must take factors such as colonization, racism, loss of cultural traditions, and patterns of urban migration into account (Snyder & Wilson, 2015). Those who move or relocate frequently experience food insecurity, as resources are spent moving from reserve to urban spaces, or within cities. Groups living within more populated regions of Canada have not been investigated as extensively, although lower incomes, high unemployment and loss of land and food environments have been similarly found to contribute to food insecurity among southern groups (Richmond et al, 2020; Neufeld, 2003; Willows et al., 2011). Women, lone parent families, and Indigenous people have been identified as being more likely to experience food insecurity. Within Ontario, 29% of First Nation households have been classified as food insecure (Chan et al., 2014). An examination of other influences on food choice is significantly under-researched.

In 2012, the community of Six Nations participated in the First Nations Food Nutrition and Environment Study (FNFNES). Families reported multiple barriers to increased use of Indigenous foods, such as knowledge access. Close to 75% of participants expressed the desire to include more Indigenous foods in their families’ diets (Chan et al., 2014). The Southwest Ontario Aboriginal Health Access Centre (SOAHAC) Food Choice Study, including urban and reserve-based families in southwestern Ontario, found that 35% of reserve-based and 55% of urban-based respondents described themselves as food insecure in 2010 (Richmond et al., 2020). Survey respondents from both groups similarly expressed a strong interest in consuming more Indigenous foods, with 76% of urban-based and 52% of reserve-based respondents indicating that they would prefer to consume these foods more frequently.

Community-led initiatives

Six Nations of the Grand River Territory is the largest First Nations reserve in Canada, located in southwestern Ontario and home to approximately 13,000 members living on-reserve (Six Nations of the Grand River, 2013). Many community wellness initiatives have been offered over the years. It is only recently that the increased acknowledgement and need for community
collaboration centered on Haudenosaunee culture and foodways has been expressed by community departments and organizations (Chan et al., 2014). Through the dedicated support of the Six Nations Health Services staff and the creation of community initiatives such as Healthy Roots and Our Sustenance, the community is shifting to apply existing knowledge to cultivate a healthy Haudenosaunee community (Gordon et al., 2018).

Our Sustenance was formed in 2011, with a mandate to provide access to fresh food for local residents in the community of Six Nations in response to high rates of food bank use by local families (Hill, 2015; Neufeld et al., 2017). Community members requested the creation of a program that would see food sold close to home. Over the past thirty years, Six Nations sustained its own grocery store for approximately three years. The amount of money leaving the community for basic necessities was in the millions of dollars because people bought groceries off reserve. The statistics did not even include the number of families who were experiencing food insecurity or who did not have enough money to buy the food they wanted (GREAT, 2000).

The Our Sustenance program took its task seriously: to impact food access and to educate. The program housed many components that grew and changed with the community, from a single vegetable and fruit vendor farmers’ market to culminate in the 2018 version we observed. Over the past seven years, it has housed projects such as the community garden, the farmers’ market, a market garden, herbal meditation garden, herbal apothecary, apiary for beekeeping and honey collection, and many sustainability projects as well as educational programming. The vendors themselves now operate and support each other to offer a low-cost accessible food and artisan market in Six Nations.

Community interest and momentum to follow a more Indigenous diet also began in 2015 with the Healthy Roots community initiative (Gordon et al., 2018). This work embraced the concept of food sovereignty, which expands the focus of food security from food cost, access, and availability toward the ways in which power relations and inequality undermine production, distribution, and consumption patterns (Grey & Patel, 2015; Power, 2008). Food sovereignty encompasses acquiring foods in culturally acceptable ways, such as through Indigenous practices (Schuster et al., 2011; Willows et al., 2011). Healthy Roots connected the community in tangible ways by offering the food guide while also teaching skills to acquire, grow, and share the foods. An Indigenous food sovereignty framework explicitly connects the health properties of food with the health of the environment and identifies a history of social injustice as having radically reduced Indigenous food sovereignty in nations such as Canada (Power, 2008). It addresses aspirations for collective wellbeing, along with acknowledging land rights and cultural integrity. Indigenous food sovereignty also considers gender equity, adequate nutrition, addressing structural racism, and a restructuring of socio-political processes (Cidro et al., 2015). These elements are therefore necessary to take into account when approaching any sort of guiding principles related to food guidance within the diverse food environments for Indigenous Peoples across Canada.

Our Sustenance partnered with Health Services and employed the vehicle of Healthy Roots as the community connection to create a conversation about local food and foodways in
order to build capacity that would eventually drive food guidance at Six Nations. The relationships that developed and the literal groundwork of making the community garden a welcome and safe space within the community were some of the major successes of the Healthy Roots movement that will be described in more detail in the following section.

Indigenous food guidance

To understand the evolution of modern food guidance development at Six Nations, it is necessary to understand the history and evolution of the Healthy Roots challenge, which became a movement. In 2014, a collection of partners, including Two Row Times, a local community newspaper, and Six Nations Health Services came together and created the first ‘local food only’ challenge. Healthy Roots was born and brought community members into the social spotlight by promoting whole, local foods first. This initiative aimed to eliminate from the diet five foods that had been introduced by European settlers, namely: refined sugar, flour, dairy, lard, and salt. These “white gifts” were identified by community members as contributing negatively to the health and wellbeing of Indigenous Peoples. Through the support of community partners, participants were ensured they had support from dietitians and other local health care staff and educators. The next step was eliminating highly processed foods, along with a focus on physical activity, in order to address whole body health.

Foods that were recommended during the first Healthy Roots challenge in 2015 were a combination of whole foods and seasonal foods that were part of the cultural calendar. Key examples were strawberries, venison, wild edible greens and herbs, fish, and corn. In 1995, Six Nations Health Services had created a food guide (The Tree of Life) to represent these cycles (see Figure 1). The 2015 Healthy Roots food guide was created to promote Indigenous eating practices throughout the life cycle. It was designed by and for the Six Nations community, and provided nutrient guidance as well as food guidance. The original “Tree of Life” Food Guide also illustrated that there is a time for everything: planting, growing, harvesting, hunting, and saving for the winter. These guidelines paved the way to incorporate community actions and practices that were promoted with Healthy Roots as an existing guide, while including key aspects of culture. By using previously published and advertised food guides that incorporated Haudenosaunee teachings, Healthy Roots was able to bring to life the calendar of both culture and food. The combination of food and culture meant that this was no longer just a food guide; Healthy Roots was creating food guidance in an accessible way. The use of the original Tree of Life guide paved the way for the creation of a Healthy Roots food guide over the next two years. Healthy Roots as a program therefore became a conduit for food guidance with the creation of its pre-contact food guide combined with the cultural, physical and social contexts as the program continued to evolve.
Figure 1: Tree of Life

Tree of Life
Food Guide
Cycle of Life (East to West)

1. Mid-Winter Ceremonies
   January for 5-8 days

2. Honoring the Trees (Maple)
   February for 1 day

3. Thunder Dance
   April for 1 day

4. Drying of the Trees
   April for 1 day

5. Feast for the Dead
   April for 1 afternoon

6. Medicine Mask Society
   April for 1 day

7. Sun Ceremony
   April for 1 morning

8. Moon Chant
   April for 1 afternoon

9. Blessing of the Seeds
   May for 1 day

10. Completing the Planting Season
    May for 1 day

11. Strawberry Ceremony
    June for 1 day

12. Bean Ceremony
    July for 1 day

13. Small Green Corn
    August for 1 day

14. Green Corn
    September for 4 days

15. Ceremony for Gathering Sustenance
    October for 1 day

16. Medicine Mask Society
    October for 1 day

17. Feast of the Dead
    October for 1 afternoon

Six Nations Health Services
519-445-2418

Long Term Care/Home & Community Care
519-445-1328

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### Healthy Grocery Guide

#### Vitamin A
- Carrots
- Cantaloupe
- Dandelion greens
- Spinach
- Sweet Potato
- Winter squash
- Broccoli
- Pheasant
- Cranberries
- Tomatoes
- Cheddar cheese
- Milk
- Tomato soup
- Butter
- Margarine
- Beans
- Turkey
- Pork
- Chicken
- Spinach
- Peas
- Raisins
- Sunflower seeds
- Bran flakes
- Egg
- Tomato Juice
- Plums
- Green Beans
- Oatmeal
- Chicken
- Eggs
- Haddock
- Hamburg
- Tuna
- Broccoli
- Dandelion greens
- Corn flakes
- Bran muffins

#### Vitamin C
- Apple juice
- Baked apples
- Broccoli
- Cantaloupe
- Oranges
- Orange juice
- Strawberries
- Tomato soup
- Alfalfa sprouts
- Blackcaps
- Cabbage
- Dandelion
- Potatoes
- Tomatoes
- Tomato juices
- Turnip
- Vegetable juice
- Banana
- Blackberries
- Blueberries
- Cranberries
- Fiddle head
- Raspberries
- Spinach
- Calcium
- Milk
- Cheese
- Corn soup
- Corn bread
- Cottage cheese
- Yogurt
- Broccoli
- Rhubarb
- Ice cream
- Crab
- Pikerel
- Dandelion greens
- Sunflower seeds
- Protein
- All bran
- Peas
- Beans
- Sweet Potato
- Whole Wheat bread
- Shredded wheat
- Blackberries
- Broccoli
- Carrots
- Corn kernel
- Pear
- Raspberries
- Chicken
- Eggs

#### Iron
- Liver
- Prune Juice
- Almonds
- Sardines
- Pumpkin seeds
- Squash seeds
- All bran cereal
- Corn soup
- Beef
The very first Healthy Roots campaign in 2015 included the original small group of community participants publicly sharing their experiences of making lifestyle changes through social media and news coverage. Community response was overwhelmingly supportive. Strangers would comment on social media posts or in public. The Healthy Roots participants were suddenly in the limelight of the community. Those who were watching were seeking inspiration and leadership, though this was not our sole intent. It was a very exciting yet daunting role. At community activities and events there was much discussion around the personal and emotional connections the Healthy Roots participants had with food.

In spite of the program’s success in terms of community perceptions, there were on-going challenges related to the practicality and sustainability of the dietary practices being promoted. The first event was held during the winter. January is a time when people often want to make healthier choices, but fresh vegetables and locally-produced or fresh foods can be costly and unavailable at that time. Importantly, a discussion of what is local or Indigenous became a conversation; this became the precursor to the next Healthy Roots campaign and also the involvement of Our Sustenance as a project partner.

In 2015, Our Sustenance joined Healthy Roots, and the ‘Homegrown Goodness’ series began. The plan was to engage the community in obtaining local fresh food with Our Sustenance’s community garden as the home base. That summer, workshops and classes about growing and harvesting food took place among the community at large. It was no longer seen as a food challenge or even a temporary dietary change, but more of an educational campaign around the sustainability of these culturally-based food practices. The community became more engaged in learning and seeking out food guidance.

Healthy Roots then became a program that planned for the seasons. Understanding that people could gather food from the community garden made local, whole foods accessible no matter the economic situation. The only requirement was the community’s willingness to take part. The other connection was with the greenhouse at Our Sustenance. Vegetables, greens and herbs were all grown there, and could be purchased for a modest price. Thus, progress was made towards a more sustainable, collaborative food system in the community, which evolved into the Haudenosaunee Food Guide.

The concept of food guidance shifted gradually over time from that of a food guide within the community narrative at Six Nations. When the Our Sustenance program joined the Healthy Roots campaign at the end of its first full season, the hope of the program organizers was to continue the trend in the community towards healthy eating of locally available ancestral foods (Gordon et al., 2018). Community members were able to bring healthy, fresh food home by harvesting it themselves. The staff at Our Sustenance helped to ensure that food was available within the community and workshops taught gardening skills and food literacy related to preserving foods for winter. In this way, food guidance meant that the community was actively engaged in understanding and taking control of the food that was both meaningful and available to them.
The development of a food list that varied from the original Tree of Life food guide started in 2014. The first Healthy Roots Challenge had a living list that began with foods from meso-America. These additions expanded upon the Tree of Life guide that was simpler, and therefore had fewer options. This Healthy Roots Challenge flexible list could grow and change to include all the foods historically found on the continent. Community members who were not part of the original challenge could feel they were participating, because it included items that may have been traded for in the past, such as tomatoes and peppers. The 2015 version of the Healthy Roots guide went on to evolve and had a ‘strict list’ along with a ‘secondary’ list. The strict list was more in line with the inspirational list of ancestral foods originally created with The Tree of Life guide.

In 2015, the Healthy Roots food guide (list) was the most stringent yet compared to the food guides that had previously been created. The list itself was more of a guide; the overall program of Healthy Roots was the guidance. The latest version was completed in 2015 by Chandra Maracle, with assistance from her husband Rick Hill through a partnership with Six Nations Health Services. This version of the Haudenosaunee Food Guide pictured in Figure 2 was created to be part of an Indigenous foods only community challenge for a larger group of people with the goal of consuming the foods included in the guide almost exclusively. The guide only includes the foods of pre-contact Haudenosaunee, grouped into categories of foods from the sky, the water, the bush (wild foraged plants), and the land (animals). These lists are both pre-contact and also regional to the expanse of the Haudenosaunee Territory, from Six Nations east towards the Saint Lawrence Seaway.
Figure 2: Haudenosaunee Food Guide

The support that Our Sustenance offered alongside the food guidance provided by the Haudenosaunee Food Guide includes practical skills and education on the modern-day realities of local foods within Indigenous food systems. The concept of food guidance is therefore a combination of theory and action. The skills required to acquire and prepare certain foods is not possible without a significant amount of knowledge and experience. For example, foraging for certain foods on the list requires seasonal knowledge, harvesting, and food preparation/preservation skills. Food is both an action and an outcome. To access the listed foods from the Haudenosaunee food guide requires knowledge of their location, or willingness to choose an alternative, ‘modern’ version. Education and discussion in the community is required to come to consensus even on those original wild foods and others that are cultivated in the community. Gardening and food skills are an integral part of food guidance, especially with regard to the evolution of the food list—which was meant to represent the original foods of the Territory, not merely the ‘rules to live by’.

Discussion
The emerging literature on the Indigenous food movement identifies community involvement, family-centred food education, and re-establishing a relationship with the land as essential to restoring sustainable food systems, land, and water access. These processes of reclamation have similarly evolved through collaborative community processes and guiding practices described in the Haudenosaunee community of Six Nations of the Grand River. The evolution of social movements and relationships to reinforce patterns of support through the transference of knowledge has led to the “guidance” that continues to adjust and change. This unique form of guidance is not in the form of a westernized practice of creating formalized lists meant for general distribution with the intent of controlling food-based practices.

In the community of Six Nations, guidance and practice are informed and conveyed by people and supported through established networks and relationships. This type of guidance, therefore, is living as IK and continues to evolve. As such it is not conveyed in such a prescriptive manner using lists and absolute categories. The Haudenosaunee food guide illustrated in Figure 2 is based on collective knowledge and land-based practices that are meant to be shared, adapted, and applied by all community across generations. It is therefore not a static form of guidance as the foods and their connections to land and people evolve as reciprocal relationships.

Limited research has previously taken place or been reported on the use of colonized forms of food guidance by Indigenous Nations within Canada. The most commonly referenced food guide that is used by health professionals working with Indigenous groups is Canada’s Food Guide for First Nations, Inuit and Métis (see Figure 3). It is based on the 2007 version of Eating Well with Canada’s Food Guide (EWCFG), adapted according to Health Canada to reflect traditions and food choices of First Nations, Inuit and Métis Peoples (Health Canada, 2007). The publication is available in Inuktitut, Ojibwe, Plains Cree, and Woods Cree in addition to English and French. These languages were selected to reach the largest number of Indigenous people according to 2006 Census data. Health Canada contends that this tailored food guide has recommendations for healthy eating based on science, while recognizing the importance of traditional and store-bought foods. The pictures of foods included as examples in this version of the food guide are said to reflect the importance of both traditional and store-bought foods. Store-bought foods depicted are supposed to be those that are typically available in rural and remote locations. The overall circular structure continues to include the four food groups: grains, vegetables and fruit, meat and alternatives, along with milk and alternatives. Pictures of servings from these long-established groups mainly provide examples of marketed foods with the seemingly token addition of well-known traditional foods such as: wild rice, bannock berries, wild plants, game and fish. The centre of the figure depicts harvesting and food preparation practices. Many First Nations, Inuit and Métis individuals, families, and communities may not see themselves in these federal food guide depictions and dismiss these food-based recommendations. For example, many Indigenous Peoples are often lactose intolerant. Therefore, options such as plant and bone-based sources of calcium, or vitamin D-rich foods such as fish,
should be included, along with less of an emphasis on dairy products. Those foods that may not be typically available in stores in more remote locations across Canada, such as fresh fruits and vegetables, grains and meats, are also typically cost prohibitive (Burnett et al., 2017). A recent study has suggested that the use of food guides by Indigenous communities within Canada is generally low. Only 25% of Indigenous respondents living in urban centers (off-reserve) were even aware of Canada’s Food Guide for First Nations, Inuit or Métis (Slater & Mudryi, 2018).

**Figure 3:** First Nations Métis and Inuit Food Guide
How to use Canada’s Food Guide

The Food Guide shows how many servings to choose from each food group every day and how much food makes a serving.

1. Find your age and sex group in the chart below.
2. Follow the column to the number of servings you need for each of the four food groups every day.
3. Look at the examples of the amount of food that counts as one serving. For instance, 125 mL (1/2 cup) of carrots is one serving in the Vegetables and Fruit food group.

### Eating Well Every Day

Canada’s Food Guide describes healthy eating for Canadians two years of age or older. Choosing the amount and type of food recommended in Canada’s Food Guide will help:
- children and teens grow and thrive
- meet your needs for vitamins, minerals and other nutrients
- lower your risk of obesity, type 2 diabetes, heart disease, certain types of cancer and osteoporosis (weak and brittle bones).

### What is one Food Guide Serving?

Look at the examples below.

#### Vegetables and Fruit

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Servings per Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grains</td>
<td>3-4</td>
</tr>
<tr>
<td>Milk</td>
<td>2-3</td>
</tr>
<tr>
<td>Meat and Alternatives</td>
<td>1-2</td>
</tr>
<tr>
<td>Vegetables, Fruits and Nuts</td>
<td>4-6</td>
</tr>
</tbody>
</table>

### Farmers’ Market

- Leafy vegetables and mild-leafy salad (125 mL (1/2 cup))
- White vegetables (125 mL (1/2 cup))
- Berries (125 mL (1/2 cup))
- Fruits (1 fruit or 125 mL (1/2 cup))
- 100% Juice (125 mL (1/2 cup))

### Other vegetables

125 mL (1/2 cup)

### Fruit

1 fruit or 125 mL (1/2 cup)

### 100% Juice

125 mL (1/2 cup)

### Berries

125 mL (1/2 cup)

### Bread

1 slice (35 g)

### Bannock

35 g (2” x 2” x 1”)

### Cold cereal

30 g (see food package)

### Cheese

50 g (1 1/2 oz.)

### Peanut butter

30 mL (2 Tbsp)

### Dark green and orange vegetables

125 mL (1/2 cup)

- Eat at least one dark green and one orange vegetable each day. Choose vegetables and fruit prepared with little or no added fat, sugar or salt. Have vegetables and fruit more often than juice.
- Make at least half of your grain products whole grain each day. Choose grain products that are lower in fat, sugar or salt.
- Drink 500 mL (2 cups) of skim, 1% or 2% milk each day. Select lower fat milk alternatives. Drink fortified soy beverages if you do not drink milk.
- Have meat alternatives such as beans, lentils and tofu often. Eat at least two Food Guide Servings of fish each week.* Select lean meat and alternatives prepared with little or no added fat or salt.
- Choose soft margarines that are low in saturated and trans fats.

*Health Canada provides advice for limiting exposure to mercury from certain types of fish. Refer to www.healthcanada.gc.ca for the latest information. Consult local, provincial or territorial governments for information about eating locally caught fish.

When cooking or adding fat to food:
- Most of the fats in vegetable oils and some animal fats are unsaturated fats. These include canola, olive and soybean oils.
- Choose food with less than 1 g of saturated or trans fats in each serving. This includes oils used for cooking, salad dressings, margarine and mayonnaise.
- Traditional fats that are liquid at room temperature, such as seed and whole oil, or vegetable ghee, also contain unsaturated fats. They can be used as all or part of the 2-3 tablespoons of unsaturated fats recommended per day.
- Choose soft margarines that are low in saturated and trans fats.
- Limit butter, hard margarine, lard, shortening and bacon fat.
People who do not eat or drink milk products must plan carefully to make sure they get enough nutrients.

The traditional foods pictured here are examples of how people got, and continue to get, nutrients found in milk products. Since traditional foods are not eaten as much as in the past, people may not get these nutrients in the amounts needed for health.

People who do not eat or drink milk products need more individual advice from a health care provider.

- Wild plants, seaweed
- Fish with bones, shellfish, nuts, beans
- Bannock (made with baking powder)
- Fish with bones, shellfish, nuts, beans

For strong body, mind and spirit, be active every day.

Women of childbearing age

All women who could become pregnant, and pregnant and breastfeeding women, need a multivitamin with folic acid every day. Pregnant women should make sure that their multivitamin also contains iron. A health care provider can help you find the multivitamin that is right for you.

When pregnant and breastfeeding, women need to eat a little more. They should include an extra 2 to 3 Food Guide Servings from any of the food groups each day.

For example:
- have dry meat or fish and a small piece of bannock for a snack, or
- have an extra slice of toast at breakfast and an extra piece of cheese at lunch.

Women and men over the age of 50

The need for vitamin D increases after the age of 50.

In addition to following Canada’s Food Guide, men and women over the age of 50 should take a daily vitamin D supplement of 10 μg (400 IU).

This guide is based on Eating Well with Canada’s Food Guide.
Other forms of adapted food guidance based on EWCFG include the Healthy Food Guidelines developed by the First Nations Health Authority (FNHA) in British Columbia (BC) and the Nunavut Food Guide (FNHA, 2014; Nunavut Department of Health, 2012). Both of these examples also include examples from the four food group components. The guidelines developed by the FNHA, however, are intended to support community members in educating each other about better food and beverage choices to offer in schools, meetings, homes, cultural and recreational events, and in restaurants in First Nations communities in BC (FNHA, 2014). They are presented in table format based on the *Guidelines for Food and Beverage Sales* in BC schools. The table is broken into the four main food groups, along with an additional eight that include vegetable, fruit and milk-based beverages, along with nuts and seeds, soups, mixed entrée foods, candies and chocolate, and condiments. Each of these 12 groups is divided into three categories based on nutrition criteria such as the amount of sugar, fat, and sodium contained in these foods with primarily store-bought examples given for each. The guidelines also provide direction in recipe adaptation, program development, serving traditional foods, food service at community events, and improving food security through the increased use of local and regional foods. By contrast, the Nunavut Food Guide (see Figures 4), in the shape of an *ulu,* is far less detailed and includes five main messages aimed at promoting the consumption of both country and healthy store-bought foods (Nunavut Department of Health, 2012). The guide also distinguishes between healthy categories of food and promotes variety through the promotion of traditional values and balance. The four-page document includes pictures of examples of foods in the four food groups, but re-classifies the labels according to their use by the body. Uniquely, an entire page is dedicated to illustrating the variety of plant-based and animal-based sources of country foods that may be harvested locally. These more context-specific food guides are potentially moving towards the land-based more localized food guidance that Indigenous communities are developing independently as acts of self-determination.

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3 An *ulu* is an Inuit woman’s cutting tool.
Figure 4: Nunavut Food Guide
More recently, the new Canada’s Food Guide that was released in January 2019 acknowledges that traditional foods and the harvesting of traditional foods are linked to identity and culture for Indigenous Peoples and contribute to overall health. Yet, as Wilson & Shukla (2020) contend, no responsibility is taken for supporting Indigenous health. Barriers to accessing healthy foods, socioeconomic and otherwise, are not taken into consideration. Neither are Indigenous Peoples’ unique and diverse food environments. Health Canada suggests that as part of the food guide revisions, the agency is working with First Nations, Inuit, and Métis partners to “support the development of healthy eating tools” (Health Canada, 2019). Health Canada’s (2019) website states the new resource is “inclusive of Indigenous Peoples,” but maintains that the 2007 Food Guide for First Nations, Inuit and Métis, “can still be used as a trusted source of information on healthy eating to support Indigenous peoples until new tools are available”, implying additional revisions are forthcoming. At the time of writing, two years following the release of the 2019 version of the food guide, Health Canada continues to communicate that they are working with Indigenous Services Canada, First Nations, Inuit and Métis organizations to develop “distinction-based” tools as part of the revision process.

Beyond the development of guiding resources aimed at bridging various perspectives on food guides, progress has been made in the resurgence of Indigenous food systems, knowledge, and environments with the perhaps greater goal of social justice that the Indigenous food
sovereignty movement was founded on. Indigenous food sovereignty is guided by the recognition that these foods are sacred and involves navigating their rights and access to land and upholding these relationships (Cidro et al., 2015). Canada has agreed to implement the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) into law. Article 20 states that Indigenous Peoples have the right to be secure in the enjoyment of their own means of subsistence and development and to engage freely in cultural and other economic activities (United Nations General Assembly, 2007). These sovereign rights include the ability of Indigenous Peoples to practice these rights to access their food systems based on their own unique knowledges and practices. The processes to address some of the historical challenges within the community of Six Nations were practical and yet political. Reclaiming knowledge by offering education in the form of guidance and physical spaces to grow and share food were key components of food sovereignty enacted. By offering safe spaces and places to connect knowledge and food, the community gained skills and learned more about food origins and environments that are inherently Haudenosaunee.

Conclusions

Indigenous foods can be revitalized by passing on knowledge through workshops on Indigenous food and medicine protocols, and through the identification, harvesting, processing and preparation of Indigenous foods (Gendron et al., 2016). While many initiatives described here are centered in the community of Six Nations, momentum is building widely. Indigenous communities in urban environments are asking to be involved to address the economic challenges of living in cities, including the opportunities for teaching and social interactions around food (Author et al., 2017; Elliott et al., 2012). The activities and programming promoted by Our Sustenance and Six Nations Health Services could be adapted for other communities within their own unique Indigenous food environments and systems. Incorporating local and Indigenous food systems, knowledge, and perspectives into food guidance can have lasting effects at the local as well as national levels for protecting food environments, restoring Indigenous foodways, and improving food security and sovereignty (Wilson & Shukla, 2020).

This discussion points to a key insight with respect to food sovereignty, which is informed by a vision of democratized engagement in the food system but is also a form of theoretically-informed practice (McMichael, 2009). Far from being a static end-point or an absolute, food sovereignty is also a day-to-day mode of resistance informed by the demands, in this case, of a long history of anticolonial struggle (Grey & Patel, 2015). To see the current shift at Six Nations, as our focus, the view of the current activities of the local food system as it grows and evolves is especially important. The Healthy Roots campaign and the Haudenosaunee food guide form a strong basis for inspiring the forward movement that has taken place in the community of Six
Nations. The list was not designed to be the ideal food guide. It was and continues to be a reminder that our community, our culture, language, health, and wellness are all present if we remember who we are as Haudenosaunee. During its creation and evolution, the food list offers direction and a sense of purpose to us as Indigenous Peoples and our relationship with food.

Guiding practices and programming continue to progress and adapt. Six Nations Health Services is now providing community garden staff and education on site. The community is welcome to come and access locally grown produce from the public plots at any time during the growing season, and programming classes and activities take place at the garden. Part of the success of this style of food guidance is working with local partnerships and the willingness of organizations such as Health Services to see and seize an opportunity to help guide the community toward better health, through activities such as Healthy Roots. Those opportunities have created movements that have brought people back to the land, back to the idea of sharing knowledge and practice with each other, through time, stories, and food. The social groups that came out of Healthy Roots have solidified into a social network of people who have created spaces and places where they can gather, share stories, successes, build friendships, and spend time guiding each other. While the original focus was categories and classifications of local, traditional, and Indigenous foods, it is now in fact about community and us as Indigenous Peoples.

Indigenous food systems along with the environments they exist within are complex and holistic. They are valued from a physical health perspective and the activities involved in their acquisition and distribution allow for the practice of cultural values, such as sharing and cooperation (Earle, 2011). Bringing the four directions into balance by increasing emotional and spiritual supports around Indigenous foods, such as re-establishing relationships with the land and cultural practices, may assist in progressing towards Indigenous food sovereignty (IFS) and sustainable Indigenous food systems and environments. IFS is guided by the recognition that food is sacred and requires the establishment of relationships among people and between people and the land (Morrison et al., 2011). Therefore, the importance of sharing practices and increasing knowledge capacity around Indigenous foods through increased social support both within families and the larger community needs to be encouraged and put into balance, both on and off-reserve. Access to local environments including the physical (land and water), and mental (knowledge) across Indigenous communities and food environments is therefore essential to re-establish and strengthen these connections. Elevating Indigenous food as a vehicle towards self-determination reinforces both dietary and biocultural diversity (Johns & Sthapit, 2004). Diversity in both forms as guiding principles thereby improve health, wellness, and continue to revitalize hope for the future of food guidance.

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