

Increasing Indigenous Children's Access to Traditional Foods in Early Childhood Programs

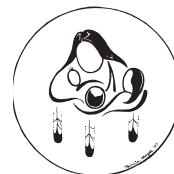
December 2016



Funded by:



In collaboration with:



BC **Aboriginal**
Child Care Society

Prepared for the Population and Public Health Program Provincial Health Services Authority (PHSA)

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Acknowledgements:

A small leadership committee with members from the Resource Team, the First Nations Health Authority and Provincial Health Services Authority Indigenous Health provided guidance into the overall approach and content of the project. The project relied on the knowledge, time and expertise of a multi-stakeholder advisory with members from Aboriginal Head Start Association of BC, Aboriginal Head Start on Reserve, British Columbia Centre for Disease Control, Carrier Sekani Child and Family Services, First Nations Health Authority, Fraser Health, Interior Health, and Northern Health.

Cover photographs courtesy of BC Aboriginal Child Care Society.

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Suggested citation:

Provincial Health Services Authority. (2016). *Increasing Indigenous Children's Access to Traditional Foods in Early Childhood Programs*. Vancouver, B.C.: Provincial Health Services Authority, Population and Public Health Program.

Table of contents

Executive Summary	1
Introduction	5
Methodology	8
Phase one: Environmental scan and literature review	8
Phase two: Key informant interviews.	8
Phase three: Case studies	9
Findings	10
Phase one: Environmental scan and literature review	10
Phase two: Key informant interviews.	15
Phase three: Case studies	19
Discussion	22
Regulatory barriers	22
Support for changes.	23
Options for consideration	25
Options for consideration	25
Supportive actions	25
Conclusion	27
Appendix A: Scan of policies and practices related to traditional foods in early childhood programs in other jurisdictions	28
Appendix B: Scan of policies and practices related to traditional foods in health and education facilities	31
Appendix C: Scan of the academic literature.	34
Appendix D: Summary of potential safety issues with traditional foods	37
Appendix E: Scan of publications for early childhood program personnel	40
Appendix F: Scan of British Columbia legislation	41

Appendix G: Key informant interviews44

Appendix H: Licensing officers' perspectives on traditional foods56

Appendix I: Case studies - visits to early childhood programs58

References64

Executive Summary

Introduction

Traditional Indigenousⁱ foods are part of a healthy diet. Moreover, traditional foods also have cultural and spiritual value and can contribute to the health of young First Nations and Métis children, many of whom experience food insecurity. Early childhood programs are ideal settings to introduce, explore and share traditional foods. However, in licensed childcare settings, the current food regulatory system effectively excludes the type, frequency and/or where traditional foods can be served.

The purpose of this project was to gain a better understanding of the circumstances that positively and negatively impact the use of high-protein (such as fish, shellfish and game) traditional foods in First Nations' and off-reserve early childhood programs (including group childcare and preschools) for Indigenous children from birth to age six. This collaborative project included stakeholders from diverse backgrounds including environmental health, food security, licensing, Aboriginal Head Start, child and family services, and public health.

This project builds on research conducted in 2012 by the BC Aboriginal Child Care Society and aligns with the work of the provincial *Early Years Resource: Healthy Eating and Physical Activity* project. Increasing access to healthy, safe food, including traditional food has also been identified as a key priority area of focus for healthy eating at the Ministry of Health. This project also fits into broader efforts by PHSA's Population and Public Health Program and the BC Centre for Disease Control to increase collaboration between food security and food safety sectors at the local, regional and provincial levels.

Methodology

There were three phases to the project.

Phase one: Environmental scan and literature review

This first phase included scans of the policies and practices related to traditional food use in other jurisdictions across Canada; scans of the relevant literature with a focus on food safety; and a review of the British Columbia regulatory systems that impact the ability of early childhood programs to serve non-market foods.

ⁱ The term Indigenous and Aboriginal are used interchangeably throughout this report. In Canada, both terms are inclusive, referring to First Nations, Métis and Inuit. Specific terms like First Nations are used when appropriate and when referring to a program or community.

Phase two: Key informant interviews

The second phase involved 15 semi-structured key informant interviews with seven environmental health officers (EHOs), one licensing manager, three licensing officers (LOs), and four early childhood program personnel. Thirteen interviews took place over the phone, and two of the interviews with the LOs took place via e-mail. Key informants were selected based specifically on experience working in First Nations communities, their knowledge of/experience with traditional foods, and their experience working in (or with) early childhood centres. Based on the methods used for this project, the findings are not (and were not intended to be) a random sample or a representative sample of any of the sectors involved and, therefore, do not represent the views of an entire sector.

Phase three: Case studies

The final phase sought to build on, and deepen, the knowledge gained through phase two. It involved case studies in four communities where the researchers conducted face-to-face interviews with program managers and early childhood educators (ECEs) and spoke informally with Elders, parents and other community members.

Findings

Environmental scan and literature review

The environmental scan showed that non-market traditional foods are excluded from early childhood programs in most Canadian jurisdictions, with the exception of Nunavik. The literature review did not find any academic articles that directly addressed the safety of traditional foods in Canadian institutional settings, but did find that consumption of traditional foods was not associated with higher incidence of foodborne illness than consumption of many market foods. Foodborne illness connected to traditional foods can be linked predominantly to the consumption of raw or undercooked foods, fermented foods or cross-contamination from undercooked wild game. Traditional knowledge of Elders and traditional food preservation methods can make important contributions to improving food safety of traditional foods.

Key informant interviews

According to key informants, the most significant barrier to the use of traditional foods in early childhood programs for Indigenous children is the *Food Premises Regulation* requirement that foods must be from approved sources. Approved sources do not exist for most of the traditional foods. Key informants also noted the differing practices of First Nations Health Authority (FNHA) EHOs and regional health authority EHOs, as well as the regulatory environments in which they work. These different contexts impact the access of early childhood programs to non-market traditional foods. Another significant barrier was the lack of kitchens that meet food permit requirements, which are required for preparing both market foods and non-market foods.

Key informants suggested many changes to existing regulatory and inspection frameworks that could improve access to traditional foods. These suggestions helped inform the final options for consideration and supportive actions. Key informants emphasized the importance of collaboration and the need to recognize that First Nation Elders and traditional knowledge holders have traditional food safety knowledge and cultural protocols that ensure foods are safe for children.

Case studies

The community visits contrasted the circumstances for on-reserve and off-reserve programs. The off-reserve, licensed program had the most difficulty incorporating high-protein traditional foods. On the other hand, one First Nation is operating without a *Child Care Licensing Regulation (CCLR)* license. The children in the centre operating without a *CCLR* license are learning traditional ways from Elders, including how to: harvest traditional food; prepare food in traditional and non-traditional ways; and give thanks, share and eat traditional food.

The licensed and unlicensed programs that are successfully serving traditional foods take many steps to ensure the food is safe.

Discussion & options for consideration

The key informants and advisory committee of this project support exploring changes to the regulatory frameworks that guide the work of EHOs and LOs to give early childhood programs for Indigenous children improved access to non-market traditional foods. Successful programs in other jurisdictions demonstrate that traditional foods can be safely served in institutional settings. The literature review identified that in general, risks for foodborne illness are no greater with traditional foods than with market foods. Improving access to traditional foods in early childhood programs can also be viewed as part of the reconciliation process, and is an important step toward enhancing children's knowledge of their cultures and building their positive self-esteem as Indigenous peoples.

Based on the findings of this project, the following options intend to increase access to traditional foods in the early childhood setting:

1. Work with the Ministry of Health and the health authorities to explore developing a new set of food safety guidelines or standards specific to serving non-market high-protein and other traditional foods to children in Indigenous early childhood programs. The guideline development should include a strong engagement process that ensures collaboration with traditional food knowledge keepers and early childhood educators working in Indigenous contexts.
2. Explore sources of funding for building/equipping/renovating kitchens in Indigenous early childhood programs.
3. Once food safety guidelines/standards are developed for the early childhood setting, explore whether they can be adapted to other settings beyond childcare facilities.

“We want children to see, feel, smell, taste and hear their culture and language.”

– Early childhood educator

A number of supportive actions may help encourage broader access to non-market traditional foods in early childhood settings (see pg 25 of full report). The authors of the report recognize that much work still needs to be done to acknowledge and implement Indigenous rights.

Conclusion

Indigenous children in BC have a moral and legal right to the traditional foods that nourish their bodies and spirits. This includes consuming traditional foods, as well as learning from Elders and other knowledge keepers to harvest, prepare, give thanks and share the foods that are integral to their cultural heritage.

However, for Indigenous children in early childhood settings, access to traditional foods can be limited by a number of factors, particularly provincial food safety regulations that favour market foods. While many educators and health professionals working in this setting have found creative ways to increase access to traditional foods, the result is that levels of access differ greatly across the province.

A key tension uncovered by projects such as this is the struggle for Indigenous rights and government policy to operate in the same spaces. A first step to addressing access to traditional foods within the current regulatory framework is the development of a new set of guidelines specific to serving non-market traditional foods in early childhood programs. The guidelines would be developed collaboratively with Indigenous communities and led by professionals with a thorough understanding of First Nations, Aboriginal and Métis cultural values. The intent is that these guidelines can be adapted to other settings such as schools, hospitals and long-term care facilities. Moving forward, greater acknowledgement and attention needs to be given to traditional knowledge and Indigenous rights.

Introduction

Food is an essential element of Indigenousⁱⁱ cultures and its significance goes well beyond simply meeting nutritional needs. Aboriginal cultures and identities are closely connected to the lands and waters where their traditional foods are obtained. The spiritual values, prayers and rituals related to hunting, fishing, gathering, preparing and sharing traditional foods are at the heart of First Nations' cultures. From this perspective, it is very important that young Indigenous children have access to the traditional foods and the teachings related to the foods that are integral parts of their culture and identity.

The backdrop to the present project includes the legacy of colonialism that continues to impact the lives of Aboriginal people. It is known that past governments have prevented children from accessing traditional foods in order to advance the goal of assimilation. For example, the final report of the Truth and Reconciliation Commission of Canada documented the loss of access to traditional foods and the low-quality foods served in residential schools. Acknowledging this historical context is important for understanding current issues influencing Indigenous children's access to traditional foods in order to navigate a good path forward.

The purpose of this project is to explore the circumstances that affect the access and use of traditional foods in early childhood programs (including group childcare and preschools) for Indigenous children from birth to age six. Project methods were designed to elicit the perspectives of a small number of early childhood program personnel, environmental health officers and licensing officers on ways of increasing Indigenous children's access to traditional foods in early childhood programs without compromising food safety. Key informants were selected based specifically on experience working in First Nations communities, their knowledge of/experience with traditional foods, and their experience working in (or with) early childhood centres. This report's findings, therefore, do not (and were not intended to) represent a random sample of people or to represent the views of entire sectors.

This collaborative project brought together people with different perspectives on traditional foods. The Provincial Health Services Authority (PHSA), the First Nations Health Authority (FNHA), and the BC Aboriginal Child Care Society formed the project's leadership committee, which managed and guided the overall project. Advisory committee members with backgrounds in environmental health, food security, licensing, Aboriginal Head Start, child and family services, and public health brought additional expertise to the project.

Traditional Indigenous diets were nutritious, highly seasonal and very diverse, and included large quantities of seafood, game, berries and semi-wild plants. Traditional foods are preferable from an environmental perspective, originating closer to home rather than being transported long distances from farms to processing plants to warehouses to retail outlets. The transition away from traditional foods to market foods of lower nutritive value has had well-documented detrimental consequences for the health of Indigenous peoples. Nevertheless, the food regulatory framework privileges market foods from government-approved sources over healthier, local traditional foods.

ⁱⁱ The term Indigenous and Aboriginal are used interchangeably throughout this report. In Canada, both terms are inclusive, referring to First Nations, Métis and Inuit. Specific terms like First Nations are used when appropriate and when referring to a program or community.

Food regulatory systems were created to protect public health. Even with benevolent motives, these systems communicate the message that foods outside of the regulatory framework may be unsafe. It is important to note that foods inside and outside the regulatory system can cause foodborne illness; however, the methods used by hunters and fishers to ensure food safety are treated as inadequate, if not dangerous, and traditional knowledge is devalued in favour of professional expertise. The result is that food regulatory systems have had the effect of excluding non-market traditional foods from licensed early childhood programs, thereby reducing their ability to deliver culturally-appropriate curricula. Health professionals currently engage with early childhood programs in a manner which effectively decreases Indigenous children's access to wholesome, nutritious and culturally appropriate food.

Increasing access to healthy, safe food, including traditional food, has been identified as a key priority area of focus for healthy eating at the BC Ministry of Health. This project also aligns with the work of the provincial *Early Years Resource: Healthy Eating and Physical Activity* project and work by the PHSA's Population and Public Health and BC Centre for Disease Control to increase collaboration between food security and food safety sectors at the local, regional and provincial levels.

This project examined present practices and heard suggestions from people who have knowledge and experience related to traditional foods in early childhood programs. These findings informed the options for consideration detailed later in this project report.

Case study

The first thing you notice when you arrive at the Aboriginal Head Start program are the dozens of posters lining the walls. Each poster holds a grouping of photos, carefully labelled in their traditional language and English, of the children, educators, parents and Elders who visit the program. The posters tell about field trips—to the beach, to the forest—and feasts. These field trips are opportunities for learning about the traditional ways of harvesting and gathering, like catching salmon fry with blades of grass, and followed by big community feasts at the Head Start with salmon, crab, herring roe and venison.



On this day, the Head Start program is on the land, harvesting stinging nettles. The children and families gather around to listen to the educator. After talking about the importance of giving thanks, she then sprinkles tobacco near the site where they will harvest. She hands out gloves, collection bags and scissors to each child and parent and explains how to harvest. As the families carefully snip and bag the nettles, there is much conversation. Adults with more knowledge share information with those that are less experienced. Adults and children discuss how to cut the plants so as not to damage them and so that they can keep growing more leaves. When the group feels they are ready, they head back to the centre to have a snack and enjoy their harvesting.

One of the parents (who is also a staff member in another program at the centre) cooks up the nettles and dishes them up alongside the feast that has been prepared for their snack. Salmon, halibut



crusted with crab, pickled sea asparagus, herring roe on kelp, smoked black cod and potatoes are nestled together on the small counter waiting for the children and families to wash their hands and say thanks together. The program's Elder, a woman in her 90's who visits the program each day, calls for the children to wash their hands, first in their traditional language and then in English. Once everyone is gathered around the table, she leads a prayer of thanks. Then, the feasting begins.

It is easy to see that the children are familiar with, and favour, the traditional food. Without exception, the children choose from the wide variety of traditional foods on offer. Even the very youngest children are at home with these flavours. Child after child reaches for the herring roe on kelp. They pop the small cream coloured roe between their teeth making a crackling sound, asking for more and more until it is all gone.

At the end of the meal everyone's spirits and bellies are full. Another wonderful poster about today's adventures will need to be added soon.

Methodology

Phase one: Environmental scan and literature review

The project began with an environmental scan and literature review. Food regulatory systems in other jurisdictions and literature related to the safety of high-protein traditional foods were explored and summarized.

With guidance from key informants, researchers reviewed key documents and sources that included:

- Policies, programs, and practices related to traditional foods in early childhood programs in other Canadian jurisdictions and Alaska
- Policies, programs, and practices related to traditional foods in health and education settings other than early childhood programs
- Academic literature (see Appendix C for the detailed search strategy)
- Publications intended for early childhood personnel
- Relevant British Columbia legislation

The researchers summarized the initial findings and shared them with the leadership and advisory committees for their input and guidance. The scans were then revised based on the advisory committee's input.

Following the completion of the scans, at the suggestion of the advisory committee, the safety issues associated with the consumption of high-protein traditional foods were researched and summarized.

Phase two: Key informant interviews

A researcher conducted individual semi-structured telephone interviews with 12 key informants recommended by the project advisory committee, and three additional interviews were conducted with LOs via e-mail. The researcher, in consultation with BC Aboriginal Child Care Society and the advisory, selected key informants based on their interest in, and experience with, traditional foods in early childhood programs. The researcher developed interview guides for the different stakeholder groups in consultation with the advisory and leadership committees. The original list of key informants included:

- Six environmental health officers: four from the First Nations Health Authority (FNHA) and two from regional health authorities
- One licensing manager from a regional health authority
- One environmental health manager from the FNHA
- Four employees of early childhood programs, including three managers or directors and one cook

The researcher heard from some of the early childhood program key informants that some licensing officers were conducting food safety inspections and making food safety recommendations to early childhood programs. To learn more about licensing practices, researchers expanded the original list of key informants to elicit the experiences and perspectives of three front-line licensing officers from the regional health authorities. One interview was conducted by telephone and the other two via email.

The advisory committee reviewed summaries of the interviews, and their feedback informed revisions, including the development of the Food Safety/Risk table (Appendix D).

Based on the methods used for this project, the findings are not (and were not intended to be) a random sample or a representative sample of any of the sectors involved and, therefore, do not represent the views of an entire sector.

Phase three: Case studies

Researchers visited three First Nations (on reserve) and one off-reserve early childhood facility to conduct face-to-face interviews with program managers and early childhood educators (ECEs), and to speak informally with Elders, parents and other community members. This phase built on the key informant interviews to gain greater insight, from the perspective of the early childhood facility, into the facilitators and barriers to providing traditional food to Indigenous children.

Findings

Phase one: Environmental scan and literature review

The following section summarizes key information from the scans. Detailed results are available in the appendices.

Early childhood programs in other jurisdictions

For the most part, Canadian early childhood programs for Indigenous children, both on-reserve and off-reserve, operate within food regulatory frameworks that emphasize food safety above all other considerations, including:

- Nutritive values of traditional foods
- The importance to Indigenous peoples of transmitting their cultural teachings related to traditional foods to their children
- Medicinal properties of traditional foods
- Absence of chemical additives in traditional foods
- Traditional foods are healthy choices and Indigenous people who eat them tend to be healthier
- Ways in which hunting and fishing and preserving traditional foods contribute to the physical and mental wellness of community members
- High costs of market foods, particularly in remote communities
- Financial challenges of Indigenous early childhood programs and the families they serve

In most Canadian jurisdictions, the food regulatory systems have the effect of keeping traditional foods out of licensed First Nations' early childhood programs, Aboriginal Head Start in Urban and Northern Communities (AHSUNC) programs, and other off-reserve early childhood programs that serve Indigenous families in settings such as Friendship Centres. However, there are some exceptions:

- Nunavik — In this region of northern Quebec early childhood programs are required to serve traditional foods. The foods are bought directly from hunters.
- Nunavut — Traditional foods are not excluded from early childhood programs.
- Yukon — Traditional foods cannot be served on an ongoing basis. There is a system in place for issuing temporary permits to early childhood programs to allow them to serve traditional foods. The permit system includes applications from the hunters, the butchers, and the early childhood programs wishing to serve the foods.
- Northwest Territories — Traditional foods, called country foods in the Northwest Territories, are not excluded from early childhood programs.

Outside of Canada, Alaska allows some traditional foods to be used in early childhood programs. The food must be donated. The Alaskan system is based on the recipients assuming responsibility for the safety of the foods (knowing how it was handled from kill to their doorstep.)

For details on the use of traditional foods in early childhood programs in other jurisdictions, see Appendix A.

Traditional foods in health and education facilities

The environmental scan identified some locations in Canada where non-market foods are being served (programs with conditions in place to address food safety concerns) in settings other than early childhood programs:

- Whitehorse Hospital, YT
- Sioux Lookout Hospital, ON
- Athabasca Health Yutthe Dene Nakohoki Health Centre, SK
- Schools in northern Saskatchewan
- Schools in Haida Gwaii, BC

For details on the use of traditional foods in health and education facilities, see Appendix B.

Academic literature

No academic articles were found that directly address the safety of traditional foods in Canadian institutional settings such as child care programs, hospitals or long-term care facilities. The search was therefore broadened to include studies of food safety and traditional foods. The limited academic sources focus on food safety in northern, particularly Inuit, contexts, and none of the literature directly addressed food safety among young children consuming traditional foods.

Key findings of the academic literature review:

- Consumption of traditional foods has not been associated with higher incidence of foodborne illness than consumption of many market foods.^{1, 2, 3}
- Traditional northern foods (such as caribou, fish/seafood, seal and whale) were sometimes correlated with gastrointestinal illness. However, other food sources, especially eggs and poultry, water and factors such as exposure to cats and dogs and crowded living conditions, were found to be more significant potential sources of gastrointestinal illness.^{4, 5, 6}
- Foodborne illness directly connected to the consumption of traditional foods is predominantly linked to the consumption of raw or undercooked foods, fermented foods, or cross-contamination from undercooked wild game.^{7, 8, 9}
- Elders' traditional knowledge and traditional food preservation methods such as fish smoking can make important contributions to improving the safety of traditional foods.^{10, 11, 12}

For details of the scan of academic literature related to food safety and traditional foods, see Appendix C.

Potential food safety risks with traditional foods

Foodborne illnesses result from eating viruses, parasites or bacteria or their products. The greatest risks of contracting illness from traditional foods arise from the consumption of fermented fish and fish eggs (botulism), raw shellfish (vibrio, shigella, norovirus), raw finfish (anaskis simplex) and raw or undercooked bear (trichenella nativa). Many of these risks also exist (and in some cases, at higher levels) with market foods.¹³ Some common symptoms of foodborne illness are vomiting, abdominal cramps, diarrhea, joint and back pain, fever and tiredness. In some cases foodborne illness can result in death. With the exception of botulism from fermented marine foods and poisoning in shellfish from toxic algal blooms, the risk of foodborne illnesses from traditional foods can be reduced by following the same food safety guidelines used for the preparation of market foods. For details of the food safety issues associated with high-protein traditional foods and recommended prevention methods, see Appendix D.

Resources for early childhood program personnel

A literature scan identified only two publications written specifically for British Columbia's early childhood program personnel on the topic of traditional foods. One of the articles was in a 2003 newsletter for BC First Nations Head Start programs. Unfortunately, it contained contradictory messages that may have caused confusion among early childhood educators.

For details of the scan of publications for early childhood program personnel, see Appendix E.

Related British Columbia legislation

British Columbia's legislation which guides food safety in childcare settings includes:

- *Food Safety Act* and pursuant *Meat Inspection Regulation*
- *Public Health Act* and pursuant *Food Premises Regulation*
- *Fish and Seafood Act* — 2015 (legislation not in force at the time of writing)
- *Wildlife Act*

The *Community Care and Assisted Living Act* and pursuant *Child Care Licensing Regulation (CCLR)* is the provincial legislation related to early childhood programs. The *CCLR* sets health and safety requirements for a wide range of child care programs including private family child care, child care in group settings and preschools.

The *Food Premises Regulation* requires sites in which food is prepared to have food service permits and kitchen operators to have FOODSAFE or equivalent qualifications. All food must be obtained from sources approved by environmental health officers (EHOs). Meat must be from slaughter establishments licensed under the *Meat Inspection Regulation*, the federal government or other regulated sources. This requirement prevents facilities that have food service permits from receiving donations or purchasing foods directly from hunters and fishers.

The impact of these regulations on early childhood programs for Indigenous children varies depending on the locations of the programs and from First Nation to First Nation. It has the greatest impact on Aboriginal Head Start in Urban and Northern Communities (AHSUNC) and other off-reserve early childhood programs.

Compliance with the *Food Premises Regulation* is enforced in some locations and monitored in other locations by EHOs. Most of the EHOs who monitor First Nations' early childhood programs are employed by the FNHA. The EHOs who inspect AHSUNC and other off-reserve programs for Indigenous children are employed by regional health authorities. In some locations, EHOs from regional health authorities also inspect programs on-reserve. Participation in the system of consultation with FNHA EHOs varies, with some First Nations choosing not to participate. In addition, the treaties negotiated by individual First Nations have created varied service-delivery systems.

The *CCLR* covers the use of traditional foods in licensed First Nations' and off-reserve early childhood programs in two ways: it requires licensees to ensure that children have healthy food and drink according to *Eating Well with Canada's Food Guide*, and also to consider each child's food preferences and cultural background, which means using *Eating Well with Canada's Food Guide for First Nations, Inuit and Métis*. The *CCLR* is enforced by licensing officers (LOs) employed by regional health authorities.

Compliance with these requirements, however, are complicated by the *Food Premises Regulation* which prevent early childhood programs from receiving, preparing, and serving the traditional foods listed in *Eating Well with Canada's Food Guide for First Nations, Inuit and Métis* unless they come from "approved sources" — which do not exist for the vast majority of traditional foods in British Columbia (BC). Furthermore, EHOs who inspect off-reserve programs do not approve non-market foods.

The researchers also heard from key informants that provincial regulations requiring criminal record checks make it difficult for Elders to be fully involved in early childhood programs. Since teaching cultural knowledge and spiritual values related to traditional foods requires the involvement of Elders, initiatives to facilitate access to the foods must remove barriers to their participation.

For details of the scan of BC legislation related to the use of traditional foods in early childhood programs, see Appendix F.

National programs operating under provincial legislation

The Government of Canada funds and administers two Head Start programs: Aboriginal Head Start on Reserve (AHSOR) and AHSUNC, delivered on-reserve and off-reserve, respectively. The first curriculum component for all Head Start programs is culture and language. On reserve Head Start and AHSUNC programs are required to enhance children's knowledge of their cultures and languages and build their positive self-esteem as Indigenous peoples. Again, compliance with this curriculum is made difficult by the provincial regulatory framework's barriers to Elder participation and the use of traditional foods.

Global context

The Government of Canada has endorsed and recently committed to implementing the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP). The UNDRIP includes the following principles:

- Article 11(1): Indigenous peoples have the right to practice and revitalize their cultural traditions and customs.
- Article 12(1): Indigenous peoples have the right to manifest, practice, develop and teach their spiritual and religious traditions, customs and ceremonies.
- Article 14(1): Indigenous peoples have the right to establish and control their educational systems and institutions providing education in their own languages, in a manner appropriate to their cultural methods of teaching and learning.¹⁴

These are internationally recognized standards by which the regulatory systems that impact the world's Indigenous peoples are being judged.

Summary of phase one findings

In most Canadian jurisdictions, non-commercial traditional foods are excluded from early childhood programs for Indigenous children. The exceptions are Nunavut, Yukon, and the Northwest Territories, where early childhood programs are permitted to serve traditional foods, and Nunavik, where they are required to serve traditional foods. The state of Alaska also permits some non-commercial foods to be served in early childhood programs. Three Canadian health care facilities serve traditional foods and one region of Saskatchewan allows traditional foods to be served in schools. In BC, wild deer meat can be served in schools in Haida Gwaii, although that species is not a traditional food of the Haida Nation.

The literature scan found no academic studies of traditional foods in early childhood programs or health care facilities, or studies of food safety among young children consuming traditional foods. The literature on foodborne illness indicates risks exist in both traditional foods and market foods, with many market foods being riskier. Most of the hazards can be controlled by cooking the foods thoroughly. The scan of literature specifically for early childhood educators identified only two publications, one of which included potentially confusing information.

The existing BC legal framework as it is applied off-reserve has the effect of excluding traditional foods from early childhood programs, thereby preventing compliance with the requirements under which AHSUNC programs operate. The legal framework is applied differently on-reserve with some First Nations choosing not to participate in the provincial food regulatory system and others choosing to receive advice from FNHA EHOs. The existing regulatory system is also inconsistent with the principles of the *United Nations Declaration on the Rights of Indigenous Peoples*.

Phase two: Key informant interviews

This phase includes findings from key informant interviews with EHOs, LOs and ECE staff.

Environmental Health Officers, Licensing Manager and Early Childhood Educators

This section summarizes the highlights from interviews with a licensing manager, EHO and ECE key informants. Details of the interviews are included in Appendix G.

All of the key informants expressed their support for initiatives to improve access to traditional foods in early childhood settings. They recognized the nutritional, cultural, spiritual, intergenerational and environmental benefits of traditional foods and the reasons for including them in early childhood programs. In addition, the key informants were aware of community-based funds of knowledge related to ensuring the safety of traditional foods.

Inconsistent enforcement

The key informant interviews revealed significant differences between the application of the food safety regulations on-reserve and off-reserve. The FNHA EHOs work in a consultative and collaborative capacity with participating First Nations. Each Chief and Council chooses whether or not to participate. FNHA EHOs provide advice to support food safety but decision-making authority rests with each First Nation's Chief and Council. The FNHA EHOs who were interviewed have flexibility to exercise discretion and they are generally confident recommending approval for the use of non-market foods based on their knowledge of the communities and the practices of the hunters and fishers. In contrast, the EHOs employed by regional health authorities enforce the *Food Premises Regulation* off-reserve without the option of exercising their discretion to permit early childhood programs to accept non-market traditional foods.

Licensing officer involvement

The information obtained through the key informant interviews shows there is some ambiguity about the role of the LOs in enforcing food safety and that some LOs may be more restrictive than others when it comes to traditional foods.

Regulatory barriers

Kitchen facilities

In order to prepare either market foods or traditional foods, early childhood programs require access to kitchen facilities where food can be safely stored and prepared. In off-reserve settings, EHOs issue food service permits to kitchens that meet *Food Premises Regulation* standards. In on-reserve settings, FNHA EHOs and the First Nations jointly issue certificates of compliance to facilities that comply with the *Food Premises Regulation*.

It is possible for a facility to have a food service permit or a certificate of compliance but not be able to prepare and serve traditional foods. However, a food service permit or certificate of compliance is a prerequisite for food preparation. The key informants identified the absence of adequate kitchens and the costs of building and equipping adequate kitchens facilities as barriers to the inclusion of traditional foods in early childhood facilities.

Approved sources

The *Food Premises Regulation* requires that food come from approved sources. The FNHA EHOs working with First Nations are generally open to approving the use of wild game, fish and shellfish if food safety criteria are met. Different EHO key informants used a variety of approaches for approving the use of wild game, fish and shellfish, dependent on their own knowledge of hunting and fishing processes and their knowledge of those doing the hunting/fishing and processing. As a generalized summary, the following criteria were found to be important elements for EHOs working on-reserve to give approval for the use of these foods:

- They know and trust the hunters and fishers.
- The hunters and fishers are experienced.
- The hunters and fishers are known to use practices that support food safety with attention to cleanliness, temperature and visual inspections.
- Meat is cut and wrapped by certified butchers.

In contrast, early childhood programs off-reserve have greater difficulty accessing traditional foods as the EHOs are unable to give their approval to non-market foods.

Food processing concerns

Key informants were asked their opinions on the processing of traditional foods. They unanimously expressed concern that home-canned meats and fish could be unsafe. Meats and fish prepared using the hot-water bath canning method are recognized as a possible source of botulism. The early childhood personnel interviewed do not serve home-canned foods in their centres.

There were differences of opinion regarding the safety of smoked salmon. EHOs expressed concerns about the cleanliness of smokehouses and surrounding processing areas. The preferred processing method is to vacuum pack smoked salmon and then freeze it to avoid the potential for botulism. Early childhood programs have received inconsistent advice regarding smoked salmon. One key informant was told smoked salmon purchased at grocery stores could not be served while another regularly serves local smoked salmon.

Suggestions from key informants

Key informants were invited to propose changes that could support the inclusion of traditional foods in early childhood programs for Indigenous children. These suggestions are not ranked in any way, but have been grouped for the purpose of this report according to which barriers to access they would address.

Developing cultural competence

- Provide LOs and EHOs with training in the cultural safety model.
- Encourage LOs to contact EHOs when they have food safety concerns rather than providing recommendations that may be beyond their areas of expertise.
- Create opportunities for LOs who inspect licensed facilities on-reserve to consult FNHA EHOs regarding traditional foods.
- Create opportunities for regional health authority personnel to learn more about the histories and cultures of the First Nations with whom they work.
- Create opportunities for EHOs to access training on supporting the use of traditional foods in early childhood programs. The training should include clear criteria for evaluating the safety of non-market foods in order to increase the confidence of EHOs to approve the use of traditional foods.

Addressing regulatory barriers

- Food safety exemptions that allow the use of traditional foods. The EHOs cited, as precedents, exemptions allowing on-farm slaughter of animals, as well as guidelines for donations of wild game to food banks and the sale of foods at farmers' markets.
- Create opportunities for relationship-building between EHOs and those involved in all stages of the traditional food chain, beginning with the hunters and fishers. Such relationships enable EHOs to share their scientific knowledge, support safe practices on the part of the hunters and fishers, and allow EHOs to confidently recommend approval of the foods.
- Explore the utility of a mechanism for certifying community hunters as providers of wild game for use in early childhood facilities.
- Strengthen environmental monitoring of ocean conditions where seafood is harvested by First Nations.
- Strengthen the monitoring of wildlife health as a means of ensuring game is safe for consumption.

Mitigating food processing risks

- Adapt the FOODSAFE curriculum to include safe handling of traditional foods.
- Test traditional food products such as smoked salmon and hot-water bath canned meats and fish to establish the validity of concerns regarding the safety of these processing methods. The British Columbia Centre for Disease Control (BCCDC) was proposed as a trusted site for this testing.
- Provide pressure canners and train community members to use them as an alternative to hot-water bath canning.

Licensing officers

This section summarizes the highlights from the interviews with three LOs. Detailed information from the interviews is included in Appendix H.

Shared views

All three LOs agreed that early childhood programs for Indigenous children should be permitted to serve non-market traditional foods. All identified the value of traditional foods as a component of cultural teaching and community involvement. However, they did not identify the nutritional benefits, the spiritual teachings that are associated with traditional foods, or the environmental benefits of eating local foods.

Regional differences

The LO from one health authority reported that she leaves almost all aspects of *Food Premises Regulation* enforcement to the EHOs. The *CCLR* requires licensees to consider children's cultural backgrounds when selecting foods, and this LO observed the occasional serving of non-market traditional foods as part of special lunches in the off-reserve program that is part of her caseload.

LOs from another region reported that they play a more active role in ensuring food safety. They inspect kitchens, evaluate food preparation methods, inspect food storage facilities, ensure foods are from approved sources, give advice to licensees on food issues, distribute *Food Flair* materials, ensure kitchen staff have FOODSAFE training, and then refer to the EHO if they observe practices that are inconsistent with the *Food Premises Regulation*.

There are also regional differences in access to EHOs. LOs reported that First Nations early childhood programs in remote locations have difficulty accessing the services of FNHA EHOs, making it challenging to obtain certificates of compliance for their kitchens. The reasons for this situation are unclear.

Suggestions from licensing officers

The LOs were invited to propose changes that could better support the inclusion of traditional foods in early childhood programs for Indigenous children. Their suggestions included:

- Involve childcare personnel in the development of regulations.
- Provide additional cultural sensitivity training for regional health authority employees.
- Develop clear guidelines on the topic of traditional foods so everyone knows exactly what is permissible in licensed facilities.
- Remove barriers to traditional foods in the regulations enforced by EHOs (e.g., *Food Premises Regulation*).

Summary of phase two findings

The key informant interviews documented the differences between the practices of FNHA EHOs and regional health authority EHOs, and the regulatory environments in which they work — differences that impact early childhood programs' access to non-market traditional foods. For example, regional health authority EHOs have less flexibility than FNHA EHOs, resulting in more barriers to non-market traditional foods for AHSUNC and other off-reserve early childhood programs.

The key informant interviews highlighted the importance of suitable kitchens as a prerequisite for preparing both market foods and non-market foods. Programs without adequate kitchen facilities need funding to build and equip kitchens as the first step toward inclusion of traditional foods. The key informants also identified safety concerns with hot-water bath canning of meat and fish, and opinions were divided on the safety of smoked salmon. They also suggested a number of changes to existing regulatory and inspection frameworks that could improve access to traditional foods. The key informant interviews showed that there is ambiguity with regards to the roles and responsibilities of LOs in ensuring food safety.

The interviews with the LOs represent a very small, convenience sample from two health authorities. The limited consultation suggested some differences in the interpretation of food related issues for early childhood programs. In one region, the LO had minimal involvement with food issues and refers any concerns to EHOs. In another region, the LOs took a more active role in ensuring food safety.

Phase three: Case studies

The following section summarizes the highlights of visits and conversations with people involved in early childhood programs for Indigenous children, including managers, educators, Elders and parents. The case studies included licensed and unlicensed programs on-reserve and a licensed program off reserve. Details of these case studies are included in Appendix I.

Differences among programs

Licensing was the significant variable relating to children's access to traditional foods at on-reserve child care centres. Children attending programs operating without a *CCLR* license on-reserve were found to have regular access to a wide variety of non-market traditional foods including fish, shellfish, wild meats, berries and traditional plants. Children attending licensed programs both on and off-reserve did not have the same access to traditional foods.

The researchers heard from some key informants on-reserve that their programs had chosen to operate without a *CCLR* license and not to actively seek a license for reasons such as barriers to serving traditional foods and Elder participation. Children attending the licensed AHSUNC program are served non-market traditional foods least often, on special occasions outside of class time and off the premises.

Confidence in food safety

Researchers found that early childhood program personnel at each site visited had confidence that the non-market traditional foods they serve are obtained by hunters and fishers who use safe practices. There are relationships of trust between the communities' hunters and fishers and the early childhood programs.

Enthusiasm for inclusion of traditional foods

The people involved in the programs that regularly serve non-market traditional foods expressed satisfaction with the effects of their programs. They described the learning opportunities associated with gathering and serving traditional foods. Early childhood educators, parents, Elders and the children were all seen to be enthusiastically involved. Participants proudly identified the health benefits and other positive outcomes derived from the inclusion of traditional foods in their programs.

Summary of phase three findings

In the on-reserve sites visited by the researchers, unlicensed programs operating without a *CCLR* license are operating beside licensed programs. The programs that are operating without a *CCLR* license are doing so as the current regulations do not support community desires for programs that incorporate traditional teachings including traditional foods. As such, these centres are able to serve non-market traditional foods to children and parents using a holistic process which covers the whole path from field or ocean to fork including learning traditional ways from Elders, harvesting foods or receiving it from community, learning traditions of giving thanks and sharing, preparing food in traditional and non-traditional ways, learning traditional languages associated with food and food preparation, and serving and eating food.

The community visits contrasted the circumstances for on-reserve (licensed programs and those operating without a *CCLR* license) and off-reserve programs. The program with the most difficulty incorporating high-protein traditional foods was found to be the AHSUNC program.

The licensed programs and unlicensed programs operating without a *CCLR* license that are successfully serving traditional foods take many steps to ensure the food is safe. Educators, parents and Elders were proud to share their experiences supporting children's cultural learning through the use of traditional foods.

“[Traditional food] is way healthier, and it helps us to get back to our roots. The parents of the children love when their kids get the traditional foods, because a lot of them have lost that [knowledge].”

– Early childhood educator

Case study

This urban Aboriginal Head Start (AHS) is a licensed preschool serving 30 Aboriginal children between the ages of three and five. A significant percentage of families served by the program are considered low-income.

In order to better meet the needs of the families and the AHS core components, the program obtained a food service permit and began offering children freshly caught salmon donated by First Nation fishers known to the staff at the program. To ensure a high level of quality and safety for the children and families the majority of staff at the program hold FOODSAFE certificates. In addition, if parents show an interest in volunteering in preparing food for the preschool, an effort is made to support them in obtaining FOODSAFE certificates as well.



In 2013, the local health authority found out about the preschool's practice of serving non-market salmon and contacted the program to instruct them to "immediately stop such practice". Reluctantly, the preschool began purchasing "bar code" salmon. Concerned about being shut down, the program is now offering traditional foods such as salmon, deer, elk and berries only on special occasions and not in the preschool. At these scheduled gatherings (approximately six per year) traditional foods are shared following cultural protocols and often involve ceremony, such as a naming ceremony, thanksgiving, potlatch, etc. According to a staff member, "it would be inauthentic to mark these ceremonies with cheese and crackers. Traditional food is medicine. It is also a positive way for us to share, celebrate and come together as Aboriginal people living in an urban environment far from home."

Discussion

This project documented barriers to serving non-market traditional foods in early childhood programs for Indigenous children. It also found examples of programs successfully incorporating traditional foods into their curricula.

Regulatory barriers

The most significant regulatory barrier is the requirement in the *Food Premises Regulation* that foods come from approved sources. Some fish and shellfish are available commercially in some grocery stores in some communities. A commercial outlet in Coquitlam sells wild northern caribou and farmed elk, rabbit and venison. The venison is imported from New Zealand and a ranch in Quebec. However, approved sources do not exist for the vast majority of the traditional foods of First Nations in BC.

The few traditional foods that are available from approved sources are expensive and insufficient to meet the standards of the *CCLR* or support the delivery of culturally-appropriate curricula. Even if many more commercial foods were inexpensive and easily obtained, they do not offer the cultural learning opportunities that are the primary reason for including traditional foods in programs for young children. Disdained as “bar code” foods, market foods are resorted to by programs only because preferred foods are excluded.

Lack of access to kitchens is a barrier for some early childhood programs. Kitchen facilities must meet the standards of food safety and preparation under the *Food Premises Regulation* to receive food service permits or certificates of compliance. Without a food service permit or certificate of compliance, food preparation is not allowed for market foods or non-market foods.

Operators of food premises are required to have successfully completed a food handler program known as FOODSAFE or its equivalent. This requirement is not a major barrier for most early childhood programs. However, it is uncertain whether FOODSAFE training is adequate preparation for working in a kitchen in which non-market traditional foods are prepared.

Varied impacts of regulations

On-reserve, operating without a *CCLR* license

On-reserve programs that are operating without a *CCLR* license have been most successful in overcoming the barriers to non-market traditional foods. In addition to avoiding barriers to traditional foods, these programs find it easier to include Elders and they have flexibility to include children of different ages and thereby meet their communities' needs.

On-reserve, licensed

Licensed early childhood programs located on-reserve encounter barriers similar to those faced by off-reserve programs. Licensed on-reserve programs have developed strategies to include non-market traditional foods such as taking the children on field trips to Elders' centres and other locations where

traditional foods can be served. Even with the work-around strategies, children in licensed programs have much less access to traditional foods than children in nearby (and in some cases, adjacent) programs operating without a *CCLR* license.

Off-reserve

The *Food Premises Regulation* creates the greatest barriers for off-reserve programs. The regional health authority EHOs have no flexibility or ability to use discretion or allow variances. An EHO on the advisory committee used the words “rigid” and “prescriptive” to describe the regulations. EHOs who were interviewed expressed fear of being held responsible for outbreaks of illness if they were to approve the use of non-market traditional foods. Unlike the FNHA EHOs who might know the hunters and fishers and have sufficient confidence in their practices to give their approval to non-market foods, the regional health authority EHOs are, as the regulations require, excluding non-market foods.

Support for changes

The key informants and advisory committee of this project support exploring changes to the regulatory frameworks that influence the foods served to give early childhood programs for Indigenous children improved access to non-market traditional foods. This support exists across many sectors and among people with varied perspectives and areas of expertise. It is possible to build a strong case for change as described below.

Examples from other jurisdictions

Non-market traditional foods are being served in early childhood programs in Nunavik, Nunavut, Yukon, the Northwest Territories and the state of Alaska. They are being served in hospitals in Whitehorse and Sioux Lookout, and in schools and a health centre in Northern Saskatchewan. These successful programs illustrate that traditional foods can be served without endangering public health.

Review of the literature

A comprehensive review of the academic literature found no scholarly works addressing the safety of traditional foods in Canadian early childhood programs or other institutional settings. As described in the summary of Phase One, there is no evidence to support policies of total exclusion of non-market traditional foods. Food safety risks have been identified with raw foods and some preservation techniques such as fermenting. However, overall risks for foodborne illness are no greater with traditional foods than with market foods and some market foods such as eggs and poultry are riskier. The risk of foodborne illness for all foods is reduced by good kitchen practices and by cooking the foods thoroughly.

Ethical implications

Existing public policies harm Indigenous children by impeding the transmission of cultural knowledge. The exclusion of traditional foods via the *Food Premises Regulation*, and the barriers imposed by criminal record check requirements for Elders prevents children from learning about traditional foods and their inherent spiritual values. These regulatory barriers separate children from their cultural heritage and are at odds with the principles of the *United Nations Declaration on the Rights of Indigenous Peoples*.

“The importance of traditional foods and medicine is that it’s empowering our people to know who they are, where they come from, and where they’re going.”

– Early childhood educator

Supporting reconciliation

Addressing the regulatory barriers to the use of traditional foods in early childhood programs for Indigenous children would advance the reconciliation process. This suggestion is reinforced by the recent report of the Truth and Reconciliation Commission of Canada, which is prefaced by principles to guide reconciliation between Aboriginal and non-Aboriginal Canadians. Principle 8 is particularly relevant to this project:

“Supporting Aboriginal peoples’ cultural revitalization and integrating Indigenous knowledge systems, oral histories, laws, protocols, and connections to the land into the reconciliation process are essential.”(3)¹⁵

Incompatible federal / provincial requirements

First Nations Head Start programs and AHSUNC programs are operating throughout BC. These federal programs emphasize culture and language. Head Start programs are required to enhance children’s knowledge of their cultures and build their positive self-esteem as Indigenous peoples. However, by restricting access to the traditional foods that are an important part of culture, provincial food regulations and the *CCLR* make it very difficult for Head Start programs to deliver curricula that meet these expectations, especially for off-reserve AHSUNC programs.

Authoritative support

As stated in the 2009 publication *Safe Preparation and Storage of Aboriginal Traditional/Country Foods: A Review* (the leading large-scale study of food safety issues associated with traditional foods, and essential background reading on the subject) prepared by the Food Safety Network for the National Collaborating Centre for Environmental Health:

“Legislation is needed to incorporate the use of traditional foods in institutional settings, e.g. hospitals, childcare centres in cooperation with federal and provincial/territorial authorities [. . .] [There is a need to] “adapt the food safety regulations to Aboriginal cultural practices, or basic safety precautions instituted to permit cultural traditions and food preferences.”(163)¹⁶

Options for consideration

The following options are based on the input received during this project, which support exploring changes to the regulatory frameworks that influence the food served in early childhood settings. The options for consideration and supportive actions intend to increase access to traditional foods in early childhood settings.

Options for consideration

- Work with the Ministry of Health and the health authorities to explore developing a new set of food safety guidelines or standards specific to serving non-market high protein and other traditional foods to children in Indigenous early childhood programs. These guidelines should be developed through a strong engagement process that includes collaboration with traditional food knowledge keepers and ECE staff working in Indigenous contexts.
- Explore sources of funding for building, equipping and renovating kitchens in Indigenous early childhood programs.
- Once guidelines/standards are developed for the childcare setting, explore whether they can be adapted to other settings beyond childcare facilities.

Supportive actions

Implementing the options for consideration will demonstrate commitment to supporting culturally-appropriate early childhood programs for Indigenous children. However, supporting access to non-market traditional foods is not a discrete, stand-alone issue. The following actions address overlapping and related issues that arose in the course of this project:

1. Establish a province-wide working group to build relationships between individuals with an interest in providing safe, non-market, traditional foods. They will identify opportunities to increase access to traditional foods and to implement the options for consideration of this report. This working group should involve Elders, PHSA, FNHA, BCCDC, EHOs, LOs, dietitians, ECEs, knowledge keepers, hunters and fishers.
2. Ensure that health authority staff working in food safety, licensing, food security and healthy eating at all levels are culturally competent to work with Indigenous populations, aware of their status within the Canadian Constitution, and familiar with the findings and recommendations of the Truth and Reconciliation Commission of Canada. For front-line staff, this should include working with communities, Elders and knowledge keepers directly in order to understand local history, values and cultural teachings. Review current training for LOs and assess their understanding of their role and responsibilities with regards to food safety. If there are inconsistencies in knowledge and understanding then explore whether in-service, or other, training specific to food safety would help ensure consistent and supportive advice. Also provide education to early childhood staff to ensure their understanding of the roles and responsibilities of LOs in food safety.

3. Work with the appropriate provincial Ministries to explore regulatory barriers to ensure maximum participation of Elders in early childhood programs for Indigenous children, as Elders are essential to the transmission of cultural food knowledge.
4. Collaborate with First Nations to develop food safety training specific to working with non-market high-protein and other traditional foods from field/ocean to table. This training should be developed by First Nations, for First Nations.
5. Develop information resources (print and online) geared towards ECEs that highlight how early childhood programs in communities around the province include non-market high-protein and other traditional foods.
6. Establish programs to train and certify local community members, including hunters and fishers, to ensure consistent and safe production of non-market high-protein traditional foods.
7. Collaborate with First Nations to consider consistent standards and criteria for local community sites that could be certified as cut and wrap facilities.
8. Implement a process or mechanism so that public policy proposals that could impact the environment are evaluated to consider their effects on the wildlife, fish and plants that are the traditional foods of First Nations.
9. Explore sources of funding to support the successful inclusion of non-market high-protein and other traditional foods in early childhood settings. Funding is required to support Elder, hunter and fisher training and expenses; the delivery of training programs; and cut and wrap fees. This is particularly important in urban settings where a lack of access to the land, hunters, fishers and knowledge keepers are significant barriers.

Conclusion

Indigenous children in BC have a moral and legal right to the traditional foods that nourish their bodies and spirits. These rights include consuming traditional foods, as well as learning from Elders and other knowledge keepers to harvest, prepare, give thanks and share the foods that are integral to their cultural heritage.

The results of an environmental scan, a literature review, key informant interviews, and several case studies demonstrate that for Indigenous children in early childhood settings, access to traditional foods can be limited by a number of factors, particularly by provincial food safety regulations that favour market foods. While many educators and health professionals seem to have found creative ways to increase access to traditional foods, the result is that levels of access differ greatly across the province. In general, there is significant room to improve access to traditional foods for Indigenous children in early childhood settings in BC, especially in off-reserve facilities.

A key tension uncovered by projects such as this is the struggle for Indigenous rights and government policy to operate in the same spaces. The authors acknowledge this tension and recognize that much work still needs to be done to recognize and implement Indigenous rights. It is our hope that this research project helps to move the discussion of Indigenous children's access to traditional foods forward.

Appendix A: Scan of policies and practices related to traditional foods in early childhood programs in other jurisdictions

Researchers communicated personally with credible sources to obtain the following information regarding the use of traditional foods in early childhood programs across Canada and in the state of Alaska:

Alberta

A working group, co-managed through signatories from Health Canada, First Nations and Inuit Health Branch (FNIHB) and Alberta First Nations, has been established to develop a protocol for the use of wild game in early childhood programs and treatment centres. The group is currently studying the practices of other jurisdictions and their work may offer an opportunity for future collaborations.

Informants: An EHO and a regional nutritionist with FNIHB.

Saskatchewan

Early childhood programs operating on-reserve are licensed and monitored using First Nations' regulations and policies, not the provincial *Child Care Act* (CCA). While the requirements under each framework are similar, the respect for the role of First Nations is noteworthy.

First Nations use the provincial Food Safety Regulations and standards for food facility inspections. Tribal council EHOs have no enforcement power but can provide recommendations to operators, Chiefs and Councils regarding food safety in early childhood programs. Only meat raised in controlled environments such as farms and butchered in licensed facilities can be served.

Section 5(2)(f) of the Food Safety Regulations exempts childcare centres and group family child care homes licensed pursuant to the CCA, including AHSUNC programs off-reserve and licensed by the provincial child care legislation. This approach could inform changes in BC and elsewhere.

Informant: A senior EHO employed by a tribal council.

Manitoba

Only traditional meats that are farm raised and processed in licensed abattoirs with federal veterinarians or meat inspectors on-site are approved.

All foods must be inspected pre-purchase and prepared in approved and inspected kitchens. Food cannot be donated as its storage temperatures, transport conditions and sanitation would be unknown. Transport vehicles, hanging/dressing areas and cutting equipment are potential contamination points that decrease the safety of wild, hunted game for community members. As per the key informant, wild/hunted game “is not considered safe for public preparation or consumption, especially to sensitive populations such as school and pre-school children.” Families can provide cooked traditional foods for their own children if the foods are in labeled containers, and stored, prepared and/or re-heated separately in order to protect the health of other children.

Informant: A community nutritionist with First Nations and Inuit Health Branch.

Ontario

Planning is underway for the formation of an Indigenous food security working group to be hosted by the Assembly of First Nations.

In the words of the key informant: “In Ontario the public health inspectors have a history of not allowing wild meats to be used in any public setting including schools and health care settings. I’ve even heard of them interfering at community feasts...the regulations currently do not technically allow wild meats/fish unless they have been inspected, which of course creates a barrier.”

Informant: A senior health policy analyst with Chiefs of Ontario.

Quebec

Nunavik stands alone in Canada with its policy requiring early childhood programs to serve traditional foods. Kativik Regional Government policy requires that childcare programs serve breakfast, lunch and an afternoon snack every day, and at least three meals per week must include “country foods” (the term used to describe traditional foods) unless unavailable. The inclusion of country foods is explained in terms of their nutritive value, particularly their high-iron content as a strategy for addressing anemia among children. The early childhood programs buy meats directly from local hunters. The cooks are certified to handle the foods safely.

Elsewhere in Quebec, Health Canada nutritionists recommend against serving traditional foods. In personal communication with a key informant it was learned that, in spite of recommendations to the contrary, early childhood programs are occasionally serving traditional foods that have not been formally approved by a food inspection agency. These foods are accepted because the hunters and fishers are known in their communities and there is confidence that the food was properly handled, butchered and stored.

Informants: An educational advisor with First Nations of Quebec and Labrador Health and Social Services Commission, and the assistant childcare director in the Kativik Regional Government.

Atlantic region

EHOs throughout Atlantic Canada recommend against serving traditional foods in early childhood programs for Indigenous children. Foods must come from approved sources, meaning that game meats cannot be served, even when butchered in an approved abattoir.

Informants: An EHO and regional nutritionist with First Nations and Inuit Health Branch, a coordinator of Early Childhood Nutrition, and a program consultant in a provincial Early Learning and Child Care Unit.

Northern region

The three northern territories, in contrast with the rest of Canada except for Nunavik, allow traditional foods to be served in early childhood programs. Nunavut and the Northwest Territories allow country foods to be served in early childhood programs. Northwest Territories' childcare regulations require the program operator to obtain the relevant permits as specified in *The Wildlife Act*.

Yukon does not allow early childhood programs to serve traditional foods such as wild game on an ongoing basis. There is, however, a system for issuing temporary permits. The "event organizer" in the early childhood facility, the hunter who is donating the meat, and the butcher all complete application forms and if they are accepted, temporary permits are issued by Environmental Health Services.

Informants: A dietitian with Yukon Health & Social Services and a nutritionist with the Government of Nunavut.

Alaska

The state of Alaska allows early childhood programs to accept some wild game without being inspected or going through a processing plant. The meat must be whole or in quarters or roasts. No burgers or ground meats are permitted. The system relies on "the receiver knowing the person donating and assuming responsibility for the safety of the food and how it was taken care of from the kill to their doorstep." The receiver needs to check that the animal was not diseased and that it was butchered, transported, and stored cleanly and kept cool to prevent spoilage. Once accepted, it must be labeled and stored separately from other food. Preparation such as cutting and cleaning must be done separately from other food, at a different time or a different place.

The acceptance of donated traditional foods by early childhood programs in Alaska is not just an issue of food safety, but also of hunting and fishing licensing administered through the Department of Fish and Game. Hunters and fishers with sport or subsistence licences cannot make donations. Licensing issues also prevent local fishers with sport licenses or subsistence licenses from giving their fish to the early childhood programs. Donated seafood must come from processing plants or fishers with commercial licenses.

There are also a number of foods that cannot be accepted, including fox meat, walrus meat, bear meat, seal or whale oil and meat, fermented game meat and seafood, home canned, smoked or dried meats and seafood, home vacuum packaged foods, and shellfish from unapproved sources.

Informant: State of Alaska Child and Adult Care Food Program coordinator

Appendix B: Scan of policies and practices related to traditional foods in health and education facilities

The environmental scan identified some examples of traditional foods being served in health and education facilities in Canada:

Whitehorse General Hospital

The hospital receives donations of big game from local hunters. There is a dedicated kitchen area separate from conventional food preparation sites as well as regulations that allow non-conventional food preparation and storage.¹⁷ This program has had no cases of foodborne illness in over 25 years.¹⁸

Sioux Lookout Meno-Ya-Win Health Centre

This health facility in the northwestern Ontario town of Sioux Lookout is specifically exempt from some of Ontario's *Health Protection and Promotion Act* regulations, according to the Meat and Meat Products section of Regulation 562:

40. (3) Despite subsection (1), a food premise located at the Sioux Lookout Meno-Ya-Win Health Centre may have on the premises uninspected meat from wild moose, wild duck, wild goose, wild caribou, wild muskrat, wild rabbit, wild deer, wild beaver, wild elk and wild muskox if the animal or bird was killed in the course of hunting and if the following conditions are met:

1. The uninspected meat is handled, prepared, processed and stored for the sole purpose of serving it to patients, visitors and staff at the Health Centre.
2. The uninspected meat is handled, prepared and stored so that it does not come into contact with other food before the other food is served.
3. Patients, visitors and staff at the Health Centre are informed in writing each time before they are served uninspected meat that the meat has not been inspected... and meat that has been inspected is available for consumption.
4. Patients, visitors and staff at the Health Centre are informed in writing that meat that has been inspected...is always available to be served on the premises.¹⁹

Athabasca Health Yutthe Dene Nakohoki Health Centre

This health facility in Northern Saskatchewan permits traditional foods such as caribou and fish in the meal plans of patients, subject to the following procedures:

1. Wild game will be procured by an experienced hunter and/or guide in a legal manner. The hunter will have adequate experience to distinguish diseased game from healthy game.
2. Wild game so procured must be handled in a sanitary manner, wrapped adequately to prevent leaking and frozen as soon as possible after being killed.
3. The meat must be prepared in a sanitary manner (Food Hygiene Code of Practice) — separate from other approved food items and surfaces and utensils washed and sanitized before any other foods are prepared on the same surface or with the same utensils
4. The meat will be cooked in an approved location to an internal temperature of 80°C.
5. If there are any concerns with the quality of the meat at any time, err on the side of caution and discard.
6. Clients and staff of the facility should be made aware that game meat is being served.
7. An alternate meat choice should be made available for those clients who prefer not to eat wild game.
8. Caution must be used in the storing and preparation of wild game to prevent cross contamination; surfaces utensils etc. should be sanitized with a recognized sanitizing agent.
9. Fish will be obtained in a legal manner. Fish will be checked for obvious parasites and discarded if parasites are apparent. Fish should be processed to a minimum 70°C.
10. Records will be kept in a central location at the health centre of both wild game meat and fish for review (by Saskatchewan Environment, PHI or EHO). Records should include date of procurement, name of hunter or supplier, the original amount provided in pounds.
11. Patients and visitors and staff at the Health Centre are informed in writing each time before they are served uninspected meat that the meat has not been inspected and that meat that has been inspected is available for consumption.

Northern Saskatchewan schools

A program in Northern Saskatchewan allows traditional foods to be used in schools, with the following safeguards:

- Participating schools and program leaders obtain traditional foods from skilled, responsible and reputable hunters, trappers, fishers, and foragers.
- Game meats must have been butchered in an approved abattoir.

- Non-inspected game and fish is prepared separately from inspected foods. Schools accomplish this by preparing the traditional food at a separate time from the inspected foods with a complete sanitation required after non-inspected food preparation. In schools with multi-kitchen home economics rooms, the foods can be prepared simultaneously.
- Leaders have safe food handling certification and safe food handling procedures are followed.
- The non-inspected foods are stored separately from inspected foods.
- Parents and students must give informed consent to consume non-inspected foods and signs must be posted when locally sourced non-inspected foods are served.

It should be noted that school programs can purchase or receive donated game and fish only from people holding provincial licenses obtained under *The Wildlife Act*. Traditional foods may not be received from First Nations hunters who obtained the foods by exercising their treaty rights or for the purpose of subsistence. *The Wildlife Act* includes two sections entitled “Possession of wildlife by Indian” and “Hunting of wildlife by Indian” which refer to a 1930 agreement between the Government of Canada and the Government of Saskatchewan to permit hunting and fishing for food for the purpose of subsistence.²⁰ That food may not be accepted or possessed by non-First Nations persons other than immediate family members.

Haida Gwaii schools

Schools in Haida Gwaii are able to serve wild deer meat as part of a Local Food to School Program (Wheadon, 2015). This program received a permit from the Ministry of Forests, Lands, and Natural Resource Operations and approval from their EHO. However, the deer in question (Sitka black-tailed deer) are an introduced species, not a traditional food of the Haida Nation, and considered to be pests because of the damage they have done to Haida Gwaii ecosystems.²¹

Appendix C: Scan of the academic literature

The literature review was conducted through keyword searches in a variety of academic databasesⁱⁱⁱ — however, no academic articles were found that directly addressed the food safety of traditional Aboriginal foods in Canadian institutional settings (such as childcare programs, hospitals and long-term care facilities).

The keyword search was broadened to look more generally at food safety and traditional Aboriginal foods in Canada, but excluding the much more extensive literature on contaminants.^{iv} The bibliographies of relevant articles found through these searches were then searched for additional references. In addition, Google Scholar was used to search for more recent studies that cited articles that had already been found to be relevant. Finally, two research scientists working in the field and one environmental health policy analyst were contacted for suggestions of additional resources. These experts all confirmed that very little has been written in this specific area, although there were related bodies of literature (for example wildlife health) that could be further explored.

Overall, the various searches yielded nine relevant research articles and two academic review articles (literature reviews conducted by groups of academics), all of which will be discussed further in this section. The vast majority of these academic resources (seven out of 11) focused on food safety in Northern (particularly Inuit) contexts.

The two academic review articles included a broadly scoped literature review that was produced for the National Collaborating Centre on Environmental Health (NCCEH) in 2009 by the Food Safety Network (based at the University of Guelph) titled: *Safe Preparation and Storage of Aboriginal Traditional/Country Foods: A Review*. The authors of this review also concluded that the very few studies conducted on food safety of traditional Aboriginal foods mainly focused on the Northern Canadian context.

The other extensive academic review article, the 300-page *Aboriginal Food Security in the North: An Assessment of the State of Knowledge* focused broadly on food security, but did include a brief discussion on food safety.²² Here they discussed existing traditional knowledge around food safety (for example, avoiding certain foods at certain times, ensuring certain meats are fully cooked before eating, and monitoring the health of wildlife). As with the 2009 Food Safety Network review, the authors of this review highlight the need for further documentation of food safety issues and the role of traditional food safety knowledge.

The authors also identify the connections between intergenerational knowledge exchange related to traditional foods and food security. The panel of experts underscored the importance of promoting practices that encourage intergenerational knowledge transmission via integrated and culturally relevant school education programs that reflect northern Aboriginal values and realities.

iii Specifically, pubmed, CINAHL, Web of Science and Proquest thesis and dissertations, as well as UVic and UBC's Summon® Service and Google Scholar which search multiple databases at once.

iv The main key search terms used included "food safety" OR "foodborne illness" OR "gastrointestinal illness" AND "Aboriginal" OR "First Nations" OR "Indigenous" OR "traditional foods" OR "country foods". In addition, specific illnesses (salmonella, trichinosis, E.coli, campylobacter) were searched in relation to Aboriginal contexts and traditional foods.

From the nine relevant research articles, the Northern-focused literature included three articles related to Acute or Notifiable Gastrointestinal (GI) illness, within which hunting/gathering of traditional game meats and consumption of “country” foods were included as variables for analysis.^{23, 24, 25} These studies found that traditional northern foods (such as caribou, fish/seafood, seal and whale) were sometimes correlated with gastrointestinal illness. However, other food sources, especially eggs and poultry, as well as water and other factors (such as exposure to cats and dogs and crowded living conditions) were found to be more significant potential sources of GI. In addition, a fourth Northern-based study tested 127 game meat samples and 22 community freezer samples in the Nunavik region of eastern Canada and found no *E. Coli* or *Salmonella* contamination.²⁶

Interestingly, the study which focused on community-level risk factors for GI illness found that communities with higher rates of participation in trapping and consumption of traditional foods had fewer reported campylobacter outbreaks.²⁷ The authors caution, however, that their research results do not permit them to determine whether this correlation was due to under-reporting of GI illness in these remote communities or because of protective factors within communities that regularly engage in traditional food activities (such as transfer of traditional knowledge, genetic adaptation or acquired immunity).

A qualitative study with the Labrador Inuit focused on community members' perceptions of the importance and safety of traditional foods.²⁸ The study found that these foods were seen as integral to mental, physical and spiritual health, while food safety concerns were mostly related to potential contaminants in foods and, to a much lesser extent, parasites, with no mention of bacteria or other potential pathogens. The researchers engaged in the study were concerned about these potential sources of food safety risks. However, because of the overwhelming holistic health importance of traditional foods that study participants revealed, the researchers recommended that future research and associated education focus on minimizing potential food safety risks while leaving space for community-level decision making about how to balance risks and benefits of traditional foods.

Another qualitative study from the North (Yukon) focused on the role played by Indigenous knowledge in the management of environmental risks including food safety. In response to questions about ensuring that food was safe to eat, research participants discussed the importance of observation, experience, direct teachings and cultural laws.²⁹

The final three research articles included specific mention of traditional Aboriginal foods in British Columbia. One was a review of reported botulism outbreaks in Canada between 1985-2005.³⁰ Of the 91 laboratory-confirmed outbreaks, 85% occurred in Inuit or First Nations communities (the Inuit of Nunavik in Northern Quebec and First Nations communities on BC's Pacific coast). In BC, eight of the outbreaks (involving 19 people and three deaths) involved “stink eggs” (fermented salmon eggs) and two outbreaks (involving two people and zero deaths) involved aged fish and fish heads.

A second article studied the 2005 outbreak of Trichinellosis in Victoria, BC.³¹ From the report, it is not clear whether First Nations communities or individuals were involved in the outbreak. It was, however, linked to the consumption of a black bear shot in Port Renfrew. Of the 26 people who got sick, even people who ate well-cooked meat (in a stew) became sick, which suggests cross-contamination may have been involved.

The third BC-centred study focused on the antimicrobial activity of salmon smoked according to the traditional smoking method of the Tl'azt'en and Lheidli T'enneh in BC.³² The results of this study were

mixed, demonstrating antimicrobial effects of the smoking process against *Staphylococcus aureus* and to a lesser extent *E.Coli*, but not against *Salmonella* and *Listeria*. However, the researchers acknowledge that antimicrobial effects would likely vary according to—and could be improved through further study of the effects of—different woods and temperature-time combinations in the smoking process. They conclude that traditional smoking can support the creation of shelf-stable, safer food products.

In sum, traditional foods are not without food safety risks, but aside from certain raw and fermented foods, their risks for foodborne illness appear no greater than many market foods. Furthermore, application of traditional knowledge can further reduce food safety risks.

Appendix D: Summary of potential safety issues with traditional foods

This table lists the disease agents of illnesses from the consumption of traditional foods, not diseases that can be only contracted through handling wild game or fish. Some common symptoms of foodborne illness are vomiting, abdominal cramps, diarrhea, joint and back pain, fever and tiredness. Other symptoms include: neurological symptoms such as headache, confusion, disorientation, seizures, coma and permanent short term memory loss. Further symptoms might include epigastric pain, cough, vitamin B-12 deficiency anaemia, blockages in the intestine or bile duct, tingling (pins and needles feeling), (numbness spreading from lips and mouth to face, neck and extremities) dizziness, arm and leg weakness, paralysis, respiratory failure, nausea, and in severe cases, death.

Potential traditional food source	Transmission route (including food preparation method)	Prevention methods
Botulism (<i>Clostridium botulinum</i>)		
Botulism is rare but deadly. Between 1985-2005 there were 205 reported cases and 11 deaths. 83.5% of the reported outbreaks were from traditional foods.		
Fermented fish eggs and fish heads, smoked salmon ^{33,34}	Consumption of contaminated food (fermentation in anaerobic conditions favours growth of toxin)	Avoid eating anaerobically fermented foods. Smoke foods using salt (brine) and do not refrigerate in reduced oxygen packaging (i.e. vacuum packaging). Instead, freeze smoked fish, or store in open-to-air containers.
Toxic algal blooms		
Paralytic shellfish poisoning (from saxitoxin produced by <i>Alexandrium</i> spp.) Amnesic shellfish poisoning (from domoic acid produced by <i>Pseudonitzia</i> spp.) Diarrhetic shellfish poisoning (from dinophysis toxin produced by <i>Dinophysis</i> spp. and <i>Prorocentrum</i> spp.)		

iii As highlighted elsewhere in report, waters where harvesting for First Nations personal consumption occurs is not always monitored.

Potential traditional food source	Transmission route (including food preparation method)	Prevention methods
Molluscan shellfish, oysters, clams, mussels, limpets, moon snails, smaller fish eaten whole (herring), scallops and crabs (if digestive gland/hepatopancreas is ingested) ³⁵	Consumption of shellfish and other foods from contaminated waters	Harvest shellfish from open areas. Monitor harvesting closures and don't eat shellfish harvested from closed areas. ⁱⁱⁱ Pregnant and nursing women should limit consumption of shellfish.
Trichinellosis (<i>Trichinella nativa</i>) T. nativa is a cold-adapted species of Trichinella that is very resistant to freezing.		
Black bear ³⁶	Consumption of raw or undercooked meat	Cook meat to internal temperature of 71°C (drying/smoking does not consistently kill worms).
Anisakis simplex and Pseudoterranova decipiens; Diphylobothrium spp.		
Marine-water fish (A. simplex and P. decipiens)	Consumption of raw fish.	Gut fish immediately after catching.
Fresh-water fish (<i>Diphylobothrium spp.</i>) ³⁷		Cook to an internal temperature of 70°C or above; or Freeze below -20°C for seven days.
Vibrio parahaemolyticus Vibrios are the most common cause of seafood-related foodborne illnesses, usually linked with raw oysters (in the USA). ³⁸		
Molluscan shellfish, oysters, clams, mussels ³⁹	Consumption of raw molluscan shellfish, oysters, clams, mussels (note that consumption of raw shellfish is not common in BC First Nations)	Cook shellfish to an internal temperature of 90°C for 90 seconds. 85% of infections happen during warmer months (May-Oct.)
Shigellosis (<i>shigella</i>) and Hepatitis A virus		
Molluscan shellfish, oysters, clams, mussels	Consumption of RAW shellfish from water contaminated with fecal matter	Cook shellfish to an internal temperature of 90°C for 90 seconds.

Potential traditional food source	Transmission route (including food preparation method)	Prevention methods
<p>Norovirus</p> <p>The most common cause of foodborne illness worldwide.⁴⁰ Foodborne outbreaks generally occur when food handlers have the virus.⁴¹ Generally transmitted person-to-person through the fecal-oral route. It is highly contagious, especially in childcare settings, but generally self-limited.</p>		
Molluscan shellfish, oysters, clams, mussels, shellfish	Consumption of raw shellfish harvested from contaminated waters ^{42,43}	<p>Cook shellfish to an internal temperature of 90°C for 90 seconds.</p> <p>Don't let infected people handle food.</p>
<p>Toxoplasmosis (<i>Toxoplasma gondii</i>)</p>		
Black bear, moose, white-tailed deer	Consumption of raw, dried or undercooked infected meat	Thoroughly cook or freeze meat.
<p>Salmonellosis (<i>Salmonella</i>)</p>		
Salmon, grouse, ducks (eggs and poultry most common source) ⁴⁴	Consumption of raw or smoked salmon, raw or undercooked wild birds, raw or undercooked eggs from wild birds, or raw or undercooked wild meat.	Cook fish to internal temperatures of 70°C or higher; poultry meats to an internal temperature of 74°C or higher; eggs to an internal temperature of 63°C or higher for 15 seconds.
<p>Listeriosis (<i>Listeria monocytogenes</i>)</p>		
Salmon	Raw and smoked fish ^{45,46}	Low risk, but more potentially lethal (especially for the elderly)

Appendix E: Scan of publications for early childhood program personnel

The 2003 article “Using Traditional Foods”, published in a newsletter for First Nations Head Start programs described how the Splatsin Head Start and Cree-ative Wonders Head Start successfully incorporated traditional foods into their menus.⁴⁷ With the approval of their EHO, the Splatsin program used a donated deer to make jerky, and the Cree-ative Wonders program accepted moose meat, deer and rabbit from local hunters. The article recommended the guidelines in *Food Flair for Child Care*, now known as *Food Flair*, and it included a sidebar describing how to access the *Food Flair* resources.

However, *Food Flair* materials specifically state that food should be bought from approved commercial retail suppliers. This is at odds with the use of donated game meat by the two Head Start programs. In addition, the article quoted a Head Start coordinator as saying “At home that’s what we eat, why not serve it at the daycare as well?” The article did not explain that the *Food Premises Regulation* does not apply to private homes.

This contradiction might explain some of the frustrations reported by early childhood programs. If they interpreted the article as a green light to accept donations of game meat and were subsequently told by their EHOs that they could not accept it, their confusion is understandable.

Early childhood programs have not, until relatively recently, had access to authoritative information regarding the use of traditional foods. In 2014, the BC Aboriginal Child Care Society published a resource sheet entitled *What You Need to Know About Providing Traditional Foods in Early Childhood Settings*.⁴⁸ It was distributed to early childhood programs and is available at the society’s website. The resource sheet clarified the roles of EHOs, explained the need for food service permits if early childhood programs are preparing food, explained the need for FOODSAFE-certified kitchen staff, and summarized the rationale for the *Food Premises Regulation*.

Appendix F: Scan of British Columbia legislation

Food Safety Act⁴⁹

This Act governs BC's food industry from production and manufacturing to retail and restaurants.

Meat Inspection Regulation⁵⁰

These regulations are pursuant to the *Food Safety Act*. They apply to slaughter facilities for farm animals. Section 31 is of particular relevance to the current project: "A licence holder must not permit an animal, other than an animal that is raised for food, to enter a slaughter establishment." (A licence holder is defined as a person who holds a licence for a slaughter establishment.)

Public Health Act⁵¹

This Act governs all aspects of public health and disease prevention. It includes the legal foundations that support the work of EHOs. Section 77 gives them the authority to exercise their powers and perform their duties in accordance with the standards of practice established by the minister.

Food Premises Regulation⁵²

These regulations are pursuant to the *Public Health Act*. They apply to most, but not all, facilities in which food is served to the public. The regulations address all aspects of operating a food premises including:

- Construction of Food Premises
- Operation of Food Premises — including Approvals and Permits, Training, Food Sources and Protection, Equipment, Utensils and Cleaning
- Employees
- Food Safety Management

Certain sections are particularly relevant to the current project:

- Section 8(1): "A person must not operate a food service establishment unless the person holds a permit issued under this section."
- Section 10(1): "Every operator of a food service establishment must hold a certificate, issued by a health officer, for the successful completion of the food handler program known as FOODSAFE or its equivalent."
- Section 11: "Every operator of food premises must ensure that all food on the premises is obtained from (a) food premises for which plans and specifications have been approved under section 3, (a.1) a

slaughter establishment licensed under the Meat Inspection Regulation, or (b) a source that is approved by the government of Canada, the Provincial government, the government of another province or territory, or an official or agency of any of those governments under whose authority food safety standards are established and enforced.”

Fish and Seafood Act⁵³

This legislation, passed in 2015, is not yet in force. It governs the possession, rearing, growing, harvesting, processing, storage, transportation or distribution of fish or aquatic plants that may be distributed to the public for human consumption.

Of particular relevance to the current project is the protection of First Nations' fishing rights under Section 35 of the *Constitution Act 1982*, nineteenth century and modern-day treaties, related case law, fish and wildlife initiatives and agreements and policies.

Wildlife Act⁵⁴

This legislation is the foundation for managing and protecting wildlife resources. It created a system of licences for accessing wildlife by hunters and anglers. It begins with the statement “Ownership of all wildlife in British Columbia is vested in the government.” The Act specifically exempts people who are “defined as an Indian under the Indian Act (Canada)” from some of the regulations.

In the case of *R. v. Morris*, the Supreme Court of Canada ruled that treaty rights of hunters are paramount to this provincial legislation.

Of particular relevance to the current project is that the law confirms that First Nations hunters and anglers have access to wildlife resources for food, social and ceremonial purposes and, in certain circumstances, commercial purposes.

Community Care and Assisted Living Act and pursuant Child Care Licensing Regulation^{55,56}

The *Community Care and Assisted Living Act* (CCALA) governs both licensed community care facilities and registered assisted living residences. In BC, assisted living and facility care are parts of a continuum of care provided to persons who need ongoing support and assistance for a variety of health and disability-related reasons. CCALA also applies to children in licensed child day care facilities and children and youth in group homes.

The *Child Care Licensing Regulation* is the detailed, operational part of the overall legislative scheme that regulates community care facilities. Operators of licensed child care facilities must comply with regulations regarding:

- Care and/or supervision
- Hygiene and communicable disease control

- Licensing
- Medication
- Nutrition and food services
- Physical facility, equipment and furnishings
- Policies and procedures
- Program
- Records and reporting
- Staffing

Appendix G: Key informant interviews

Key informant interview process

Who was interviewed?

- Four FNHA EHOs—all mid- or late-career with experience with traditional foods in on-reserve contexts, with a range of experience with ECE settings
- Two RHA EHOs—early-mid career, with more limited experience with traditional foods and ECE settings
- One Manager of Licensing in a RHA
- One Regional Manager of EHOs in FNHA
- Four ECE representatives: three managers/directors of ECE centres (mid-late career); one cook (early career)

Potential key informants were suggested to the project leadership team through members of the project's advisory committee. Following up on some recommended interviewees led to further suggestions ("snowball sampling"). Key informants were selected based specifically on experience working in First Nations/Indigenous communities, their knowledge of/experience with traditional foods, and their experience working in (or with) early childhood centres. This report's findings, therefore, do not (and were not intended to) represent a random sample of people working with Licensing, Environmental Health or Indigenous/First Nations childcare settings. Nor are they meant to represent the views of an entire sector, rather, they synthesize the thoughtful reflections of a group of key informants who have interest in and some level of experience with traditional foods in early childhood (or other institutional) settings.

How were interviews conducted?

The researcher conducted 12 semi-structured, exploratory interviews for this project over the phone, recorded by permission. Recordings were used to create a basic summary of each interview, which was then returned to the interviewee for verification. Interviews lasted, on average, one hour. Moreover, based on information obtained during the key informant interviews, three additional interviews were conducted with LOs (Appendix H).

Main barriers and opportunities to increasing access to traditional foods in ECE settings

The main overarching finding that emerged strongly in all of the key informant interviews, regardless of position (EHO, ECE, on- or off- reserve) was recognition of the importance of traditional foods in early childhood settings and a commitment to working towards solutions to increasing the ability of Indigenous

and First Nations programs to serve these foods. Solutions included addressing regulatory issues, relationship-building and finding creative ways to increase availability of these prized but sometimes scarce foods. Time and again, the key informants emphasized the nutritional, cultural, spiritual, intergenerational and environmental importance of traditional foods, and of the specific value of introducing these foods to children at a young age and in these settings.

Furthermore, from the ECE, EHO and licensing manager perspectives, there was recognition of the long-standing knowledge of traditional food safety knowledge in communities, although the specific nuances of this knowledge may only be readily accessible to those who have the opportunity to work under the guidance of traditional knowledge holders. As one experienced FNHA EHO put it: “There needs to be respect for people who are gathering traditional foods. And it is being done, that knowledge is still there, and young people are going up with their aunts or grandparents to get traditional foods. And many EHOs or LOs may not know this unless they’ve been in community for a very long time. There needs to be respect for the hunters and fishers and gatherers.”

Interviewees suggested that collaboration between health professionals (EHOs, LOs) and traditional knowledge holders is the best approach support and enhance food safety. While there was strong support for traditional foods in early childhood settings from all key informants, the perceived ability to address regulatory barriers to traditional foods differed between the on-reserve and off-reserve context, with greater flexibility (based on long-standing relationships and the different regulatory context) in the on-reserve context. These differences are further discussed in the following sections.

Regulatory issues and opportunities

Regulatory context for EHOs on- and off-reserve

The food safety regulatory context is distinct between on-reserve and off-reserve communities. The EHOs who work on-reserve are predominantly employees of the FNHA. Prior to 2013, they were hired and managed federally by the First Nations and Inuit Health Branch (FNIB) of Health Canada.

EHOs working on-reserve use the provincial food safety legislation (*Food Premises Regulation* and *Food Safety Act*) to guide their work. However, because reserve lands are not provincial lands, these EHOs do not have the same enforcement requirements and capacities as EHOs working in the off-reserve context. Thus, the on-reserve EHOs interviewed worked more explicitly in a consultative and collaborative capacity with communities to ensure food safety, rather than “walking in waving regulations” with an enforcement role. As will be discussed further in this section, this consultative approach is often based on (and indeed requires) trusting relationships with community members.

EHOs employed by the five Regional Health Authorities work predominantly off-reserve. These EHOs are more strictly bound to enforcing BC’s food safety regulations because they work under provincial jurisdiction. However, given unextinguished Aboriginal/Indigenous title and rights in BC, even such apparent requirements for enforcement may benefit from further examination.

Regulatory context for LOs on- and off-reserve

Licensed childcare and other early childhood programs are regulated by LOs who follow BC's *Child Care Licensing Regulation (CCLR)* pursuant to the *Community Care and Assisted Living Act (CCALA)*. The *CCLR* is intended to protect children receiving care in licensed facilities.

The five Regional Health Authorities employ the LOs who inspect licensed facilities on- and off-reserve to ensure compliance with these regulations. Again, while LOs interpret the regulations differently, the 2013 BCACCS report argues that, in the on-reserve context, LOs conduct their work “by invitation” of First Nations.⁵⁷ This phrase is used by Margo Greenwood and Perry Shawana in their report *Whispered Gently Through Time: First Nations Quality Care: A National Study*⁵⁸ to clarify First Nations' sovereignty and establish that provincial regulators are not on-reserve as a matter of right. Although the province asserts that on-reserve programs require licenses, this essential issue of authority is unresolved since First Nations have not ceded their authority to regulate early childhood programs.

Food safety regulation and guidance

Part 4, Division 1, item 48 (Nutrition) of the *CCLR* addresses food in licensed childhood settings, but does not include mention of food safety. Nevertheless, key informants stated that LOs, in some instances and for a variety of practical, historical and institutional reasons, do conduct inspections and give recommendations related to food safety. While some LOs also had training as EHOs, this was not frequently the case.

In addition, LOs and EHOs often serve regions that are very large. With many communities and centres to visit, some LOs and EHOs share their concerns about childcare centres that are not directly within their own professional jurisdiction. For example, an LO might mention food safety concerns that they observed to an EHO and an EHO might mention concerns outside of food safety to an LO.

Again, the level of relationship and collaboration between EHOs and LOs seemed to vary greatly depending on the community. Information from key informants did not point to specific reasons for this variation, but some suggested that it was dependent on the specific individuals involved as well as direction or lack from managers.

Another finding about the regulatory context that emerged through the key informant interviews is that those working within licensed child care facilities are receiving inconsistent guidance about serving traditional foods. Key reasons for this lack of consistency across the province included:

- Differences in expertise and training between EHOs and LOs
- Differences in institutional context between these professionals: EHOs on-reserve work within FNHA, EHOs off-reserve work with a regional health authority and LOs serving licensed facilities on- and off-reserve work within regional health authorities
- Differences between the on-reserve and off-reserve food safety regulatory context (both follow provincial food safety legislation but have different enforcement capacity/requirements)
- Natural variation in the way each individual frontline professional—LOs and EHOs—interprets and enforces the regulations that govern their work. There was some suggestion that LOs may be less inclined to be flexible than EHOs because they have less food safety training. At the same time, others

suggested that LOs might understand the childcare setting better than EHOs who work with a wider range of food service establishments.

Regulatory barriers and ways they have been addressed

The main regulatory barriers to including traditional foods in licensed early childhood settings can be grouped by issue into three main areas: approved source, processing methods and adequacy of kitchen and storage facilities

Approved source regulation

According to the BC *Food Premises Regulation*, all foods served in a permitted food premises (such as a childcare centre with a permitted food kitchen), must come from an approved source. The issue of approved sources appears to be the greatest regulatory challenge for the incorporation of traditional foods, particularly for wild game, privately caught fish and shellfish. For example, while regulations require meat to be slaughtered (killed) and butchered (cut-and-wrapped) in a government-approved facility, wild game is killed and often dressed in the field.

Similarly, fish and shellfish must be caught under a license that allows sales and processed in a fish-processing facility licensed by the BC Ministry of Agriculture in order to be considered an approved source. Fish caught by First Nations fishers under food fishing rights (Douglas Treaty Rights) are not subject to such licensing requirements and are thus not considered as being from a government-approved source.

The extent to which approved source regulations have been a barrier to early childhood facilities incorporating wild game/fish into their menus is dependent on some of the contextual factors discussed earlier. For example, in the on-reserve context, where ECE staff have long-standing relationships with their EHOs and/or LOs, it has sometimes not been much of an issue at all. This flexibility is partly due to the fact that EHOs in the on-reserve context are not legally bound to enforce the *Food Premises Regulation*, as discussed earlier. Thus, they are able to work collaboratively with the ECE food providers to ensure that any potential food safety risks are addressed (whether or not the foods come from an approved source), thus ensuring safe access to these traditional foods.

However, there are also both on-reserve and off-reserve examples of the approved source regulation excluding a number of important traditional foods. One ECE provider on-reserve spoke of an LO who would not allow any foods from non-approved sources, preventing the serving of many traditional foods in her centre over the years. When a new LO was assigned, one more open to exploring options, the centre has been able to serve more traditional foods.

Other ECE providers talked of having certain traditional foods served at events happening off-site or in separate parts of the facility, like an Elders' room where Elders prepared and served certain traditional foods that might not otherwise be served through the centre's kitchen.

A cook who worked in an early childhood program off-reserve explained that they did serve traditional foods in her centre, but that all of these foods were purchased from approved sources (e.g. venison from game farms, fish from the grocery store). She reflected that she had heard parents or Elders around the centre feeling disappointed that locally hunted or caught fish could not be served, but because she worked in the

off-reserve context and had been clearly told that all food had to be from an approved source, she was not exploring other avenues besides market foods.

These challenges aside, it is also important to emphasize that all of the key informants, whether from the health (EHO and LO) side or the ECE side, stated their recognition of the valued traditional food safety knowledge that exists in communities. They felt that community members would be working to provide the healthiest, safest and freshest foods to their children. One FNHA EHO pointed out: "These folks have been preparing traditional foods for time immemorial and know better than I do how to do this." Another explained: "In the local First Nations culture, the good quality traditional food is going to the kids and the Elders." However, even among EHOs working in the on-reserve context, there were varying levels of comfort with (and understanding of) traditional food safety knowledge. As another FNHA EHO put it: "Sometimes people will say, well of course it's going to be safe, I shot it and it's safe, but you need to be extra careful with kids."

Key informants (ECEs and EHOs, and particularly those working on-reserve) identified the need to look at the whole process from field/ocean through transportation, processing, storage and preparation to understand and address food safety risks. They also emphasized the importance of having good relationships with experienced hunters and fishers who knew how to kill cleanly, clean meat properly, put fish on ice promptly and address issues around the health of the animal while alive, or any issues with the flesh once dead (such as not killing/dressing sick animals, identifying cysts in the meat when cutting, etc.) In some cases, the ECE provider was directly involved in the hunting or fishing and could track the wild game or fish from field/ocean to the plates and mouths of the children in their centres.

ECE and EHO key informants (on-reserve) also identified the basic approaches required to ensure that fish or wild game from "unapproved sources" is safe from harvest to processing. For fish, the process for ensuring the food safety is fairly straightforward. The fish needs to be properly cooled on the boat and then promptly brought to where it can be cleaned (such as a licensed daycare kitchen, longhouse or other appropriate facility) and frozen or otherwise processed.

For wild game, the process is slightly more complex. Animals are generally field dressed by experienced hunters, and then brought back to a facility for butchering (cutting/wrapping). Most ECE and EHO key informants said that in their experience, certified butchers butchered the carcasses, at a fee of \$1-3 per pound. When the meat was donated, paying the cut and wrap fee was cheaper than buying meat from a store. However, the cost was still seen as a barrier for some, particularly in communities with many experienced hunters who could safely and knowledgeably cut the meat themselves, especially if they had access to a proper facility. In one community this was in fact the arrangement: wild game was cut and wrapped by experienced (but not certified) community butchers/hunters in a facility with good sanitation (including access to hot water, ability to wash and sanitize knives and surfaces, non-porous cutting surfaces, ready access to refrigeration, etc.)

Once the wild game or fish has made it from the field/ocean into the freezer/fridge of an ECE facility, regular food safety principles apply, just as with market food, such as ensuring food is cooked to proper temperatures and avoiding cross-contamination. According to the *Food Premises Regulation*, the centre owner and at least one person per shift must have FOODSAFE training (often provided by their local EHOs or others). According to key informants, often more than one ECE staff member had FOODSAFE training.

Processing methods

Food processing was the second key regulatory barrier identified. When asked whether there were any traditional food processing methods of particular concern, key informants unanimously identified home-canned low-acid foods. Meats, fish and other low-acid foods processed via hot-water bath canning are at the risk of botulism, which is heat-tolerant and not easily destroyed by the boiling method of canning. None of EHOs interviewed were comfortable with hot-water bath canned fish (or meat, although fish was much more commonly mentioned) being served to children. Furthermore, none of the ECE providers served home-canned foods to the children in their centres and some expressed discomfort at the thought of serving these foods.

Some of the key informants (both ECE and EHO) did suggest that being able to serve canned food would be beneficial if experienced people canned the fish (or meat), and the canning was done in well set-up facilities (such as a kitchen up to the standards outlined in the *Food Premises Regulation*). An interesting suggestion raised, and currently being worked on in some communities, is to increase training (both of EHOs and community members) on safe pressure-canning methods. Some key informants (both ECE and EHO) were open to the use of fish if pressure-canned by people with this sort of training, and in adequate facilities.

The other food-processing method most commonly mentioned was the smoking of salmon. Again, even among the small number of people interviewed for this project, there was wide variation in opinions regarding the service of smoked foods in ECE settings. On one end of the spectrum, one EHO Key Informant had heard of an ECE centre being told that they were not allowed to serve smoked salmon, even if it was purchased at a grocery store. On the other end, one ECE centre regularly served locally caught and smoked salmon (that was smoked, vacuum-packed and then frozen until service). The key informants' main concerns related to the cleanliness of the smokehouse and surrounding processing areas. Some interviewees also stated a preference for freezing vacuum-packed smoked fish to avoid potential for botulism developing in the anaerobic vacuum-package. Because hot-smoked salmon (or other meats) leads to a cooked final product, some interviewees suggested that hot-smoking would be a preferred processing method.

Kitchen facilities

The final major regulatory issue was raised by key informants was the adequacy of kitchen facilities in ECE settings. This is an issue that goes beyond traditional foods, but does impact the ability to serve and prepare traditional foods safely. While many of the people interviewed for this project worked in or had experience with well-equipped kitchens (commercial dishwashers, large refrigeration set-ups, counter-tops that are easy to sterilize, etc.), some also recognized that in smaller centres, getting kitchen facilities up to the standards outlined in the *Food Premises Regulation* could be costly.

A variety of suggestions were generated related to this issue. EHOs spoke of working with community groups to prioritize kitchen upgrades, addressing the most pressing food safety concerns first. Some EHOs also spoke of having built relationships within their communities so that they were consulted when new facilities were being designed—and thus able to provide advice on the kind of kitchen equipment that would allow for a wider range of food service in the future. Others mentioned creative solutions of ECE centres partnering with other centres, such as a health centre or longhouse in the community that might have an adequate kitchen.

Some of the key informants interviewed were also comfortable with being more open to working with smaller, less-resourced centres to develop adequate sanitation plans with just a three sink set-up (some were even open to a two sink set-up). This openness was in recognition that adequate sanitation is possible with these sink set-ups and may be necessary in under-resourced centres where the immediate purchase of a commercial dishwasher would be cost-prohibitive. And finally, supporting communities to find funding for kitchen infrastructure development was discussed as an important way that EHOs could support ECE programs in creating kitchen facilities able to safely prepare and serve a wide range of foods on site.

Regulatory opportunities

As has been discussed in the preceding sections, the extent to which BC's food safety regulations (specifically the *Food Premises Regulation*) impact the ability of early childhood centres to serve traditional foods depends on context, with somewhat greater flexibility/ability to use discretion and precedent in on-reserve. The EHOs (on and off-reserve) interviewed for this project also drew attention to a variety of guidelines that have been developed to support food safety planning in unique contexts, specifically:

1. Class D and E licenses, which allow for on-farm slaughter of meats in rural and remote communities, and are essentially an exemption to the Meat Inspection Regulation's requirement that all meat be processed in a certified facility.
2. The guidelines developed by the BCCDC around the donation of cull game meats, which allows for the donation—to food banks—of wild game that has been killed in the field by individuals who have completed a Ministry of Forest Lands and Natural Resources Training program, with the wild game then processed through a provincially certified cut-and-wrap facility.
3. The Guidelines for the Sale of Foods at Temporary Food Markets (i.e. farmers' markets), which gives food vendors and EHOs guidelines for how to attend to food safety concerns in a temporary market setting.

These different guidelines were brought up to show precedents for applying official exemptions across the province, which may be a useful way to support increased access to traditional foods in institutional settings. Key informants had different suggestions regarding these guidelines. Some suggested they could be modified (especially the first two) to address the specific issues around serving game meat safely served in ECE settings. Others suggested that they could serve as a model for a new provincial guideline specifically focused on traditional foods. Still others suggested that these already existing guidelines, or new guidelines focused specifically on traditional foods, might be useful, but that developing solid, trusting relationships between the different community players in the traditional food chain from field/ocean-to-fork and EHOs was the most useful way to support safe traditional food service.

Responding to the issue of differing LO comfort levels with the service of traditional foods, some key informants pointed out that section 48 ("Nutrition") of the *CCLR* states that a licensee must provide children nutritious food according to *Eating Well with Canada's Food Guide*. The First Nations, Inuit and Metis version of *Canada's Food Guide* includes many traditional foods. In addition, the *CCLR* states that a licensee must have regard for children's food preferences and cultural background when serving foods. This means that the *CCLR* can be read as supportive of traditional foods. Finding ways to highlight and unpack these regulatory requirements for LOs may empower them to support provision of traditional foods because it is consistent with (and even required by) the regulations that govern their work.

Building strong community-health professional and inter-health professional relationships

The importance of strong, trusting and collaborative relationships—amongst those working in ECE settings, local hunters and fishers, EHOs and LOs—was a strong theme in all interviews. As discussed earlier, because traditional foods fall into something of a regulatory grey area, navigating food safety considerations related to these foods requires good knowledge of all stages of the process (and the knowledge/skills of those involved in harvesting/processing) from field/ocean-to-fork.

In addition, and this was emphasized strongly by many key informants, the history of colonization—a history of non-First Nations people showing disregard for traditional knowledge and practices—necessarily shapes the context in which EHOs and LOs engage with community members around food safety. This context requires EHOs/LOs to act with sensitivity to this historical context when speaking with community members about traditional foods. As key informants suggested, this includes recognizing that First Nations Elders and traditional knowledge holders are the experts in traditional foods, that they have a wealth of existing traditional food safety knowledge, and that cultural protocols would ensure that only the best foods are served to children.

If trusting relationships are built based on this foundation of respect for traditional knowledge, this can put the EHO or LO into a collaborative and supportive position, bringing the strength of their training and expertise to support communities in appropriate and constructive ways. One recommendation provided by a key informant was to ensure that LOs working with Indigenous/First Nations communities receive training in cultural safety. The same could be said for EHOs working with First Nations/Indigenous communities, although this is already happening as a result of their employment with the FNHA.

The importance of good relationships and communication between LOs and EHOs working with licensed ECE facilities also emerged as a very important theme. This is particularly important in situations where, for whatever historical, institutional or other reasons, LOs find themselves in the position of providing food safety recommendations. A key challenge for LOs working in this context is that they do not have the same environmental health/food science background that EHOs do (unless they are also trained as an EHO). This means that with less straightforward food safety situations—such as traditional foods with the issues around approved source and some processing methods—they are less well equipped to take an outcomes-based approach (that is, evaluating what the actual food safety risk, if any, and then determining the best course of action).

Furthermore, in situations where an LO might be concerned about a potential food safety issue in a licensed on-reserve ECE setting, they may receive different advice if they consult with an EHO working within their regional health authority than from an EHO working for the FNHA who has long-standing relationships in the on-reserve community or better understands the unique regulatory context on-reserve. The recommendation that emerges here is to ensure that LOs and EHOs working on-reserve are supported by their managers to connect and collaborate with each other. Such collaboration would also be valuable in the off-reserve context.

Availability of traditional foods—issues and opportunities

While the current focus of this project is not on the availability of traditional foods, the issue was central to the ECE managers interviewed: the declining number of skilled hunters in communities, the cost of going hunting and paying a butcher to cut and wrap game meat, and inconsistent donations to ECE centres through communities' food fishery were all identified as impacting the availability of traditional foods.

One ECE provider proposed an interesting solution: organize a weekend community hunt, where different band departments (for example health or education) help fund the hunt by supporting gas or food costs. The hunter keeps a portion of the kill (and in the case of the specific example shared, the hunter's cut-and-wrap fees were also covered) and then rest of the game is donated to the ECE centre and other participating departments. Another solution, previously mentioned, was one community's arrangement for skilled (but not certified) community meat-cutters to use a community facility to butcher wild game, thus saving on cut-and-wrap fees. ECE providers who have had success in obtaining traditional foods also discussed the importance of actively cultivating and maintaining relationships with their communities' hunters and fishers, so that these hunters and fishers knew that the childcare centres were looking for wild game and fish to serve in their programs.

Recommendations based on key informant interview findings

Key informants identified a number of possible recommendations to increase access to safe, high-protein traditional foods throughout the interview process.

Formal collaboration

This recommendation—getting all the key players/sectors together at the table—necessarily underlies all other recommendations. This is similar to findings from the BCCDC on increasing food security/food safety collaboration.⁵⁹ This collaboration is already happening in part through the advisory committee established to guide this current project. However, a more formal working group—with partners from within First Nations on-reserve communities and Indigenous off-reserve agencies (including but not limited to those in the ECE sector), managers or frontline staff from Environmental Health and Licensing, representatives from BCCDC and other key players within food security/sovereignty—would allow for this project's recommendations to be further fleshed out and eventually implemented. Because some of the regulatory and other issues around traditional foods are not unique to ECE settings, it might also be constructive to consider a working group focused more broadly on traditional foods in institutional settings.

Targeted training/certification for health professionals and community members

Key informants also suggested that training in cultural safety, such as the PHSA's San'yas Indigenous Cultural Safety Training, for LOs and EHOs working in First Nations/Indigenous communities could be an important step towards strengthening collaborative and respectful relationships. Some key informants

also discussed the possible utility of more targeted training/information-sharing, focused specifically on traditional foods and based on information gleaned through this project. Such information sharing could happen during regular staff meetings, such as with FNHA EHOs, or with regional health authority LO or EHO teams, in recognition of the institutional and regional context that each group of professionals works in is distinct.

Some key informants also considered the utility of some way to “certify” community hunters as providers of wild game. Suggestions here included following something akin to the SlaughterSafe training undergone by those applying for class D and E licenses, or the training that Ministry of Forests Lands and Natural Resources provides to those certified to cull game for donation to food banks. Others pointed out that this sort of training would likely be redundant for experienced community hunters, and that the knowledge that ECE providers and local EHOs have of community hunters and their expertise is sufficient to ensure food safety on the kill/slaughter side. An ECE provider working in an on-reserve context also highlighted the challenge of integrating Western regulatory approaches such as certification with traditional knowledge: “And to certify [hunters/fishers]...it’s saying your traditional knowledge isn’t good enough. And that’s just not right. These people are not going to be giving us food that is contaminated because they’re feeding that same food to their family and we’re caring for their kids, so they’re going to give us good food.”

For those wishing a more cautious approach, another suggestion was that an EHO or someone knowledgeable in food safe slaughter and field dressing could certify community hunters as food providers for ECE centres (based on conversation, or following a developed checklist to assess food safety knowledge/practices). Some key informants suggested that there would be value in EHOs participating in a hunt, both for the cultural experience and to see firsthand the community hunters’ food safety knowledge.

In licensed ECE centres that serve food, at least one staff person is required to have FOODSAFE training, generally provided by EHOs. While this training was not identified as a barrier by the small number of key informants working in ECE settings, some EHOs who have worked for a long time in First Nations communities suggested that it might be useful to adapt the FOODSAFE curriculum or develop a new food safety curriculum more specifically relevant to the First Nations/Indigenous context and traditional foods.

If such a modification or development of food safety training was to be undertaken, key informants suggested that it should be done in consultation with First Nations traditional food knowledge holders and EHOs. Some ECE providers expressed frustration at not being able to provide canned salmon from skilled community processors (because of botulism risk) in their centres. A suggestion provided by some EHO and ECE key informants was to provide training on pressure-canning to childcare providers or other community members, which might open up the possibility of serving pressure-canned salmon in ECE centres. Such training would ideally happen in conjunction with financial support for acquiring a pressure canner, which can be costly. Because of the deadliness of botulism, this is likely one of the most controversial suggestions, making it more difficult to get broad-based support.

Creating provincial guidelines specifically for traditional foods

Another key recommendation discussed by all key informants was the potential utility of creating provincial guidelines, specifically focused on traditional foods, for EHOs or LOs. Such guidelines would help address the issue of approved source or certain processing methods that might cause concern (such as smoking, wind-drying, canning, vacuum-packing, etc.) Some key informants felt that such guidelines could potentially help EHOs have greater confidence in supporting food safety planning around high-protein traditional foods.

Furthermore, the very existence of such guidelines would be a signal that those “higher up” (such as their managers) support the service of traditional foods, which could reduce the fears that some EHOs/LOs identified around being “flexible” with the regulations (for example allowing food from a non-approved source, or allowing community-smoked salmon into a daycare). The main fear was that someone might become very ill (or worse yet, die) and then on top of that terrible outcome, they would be held responsible. With proper knowledge and care taken from field/ocean-to-fork, the risk of traditional food is no higher than market foods, but because the regulations suggest otherwise, more inexperienced or very cautious EHOs have understandable concerns, hence the utility of provincial guidelines.

However, some key informants suggested that even such guidelines would not alleviate all issues around traditional foods. They suggested that a young or inexperienced EHO or LO might then feel that they need to meticulously follow these guidelines, rather than taking a more creative, holistic and outcome-based approach, responding to the unique circumstance they are facing. Such an approach is dependent on the skill, training and experience of each frontline health professional, although training and supportive management can further empower frontline staff to feel confident using these approaches. One key informant suggested that it might be most useful to generate a set of guiding principles and goals around cultural foods (and not just Indigenous/First Nations traditional foods), as well as a framework to support safe access to these foods.

Some key informants also suggested the creation of fact sheets for ECE providers around traditional foods, but these would likely be repetitions of the fact sheet created by the BC Aboriginal Child Care Society and other resources already in existence. Depending on how widespread the sense that the service of wild game/fish in ECE settings will “get you into trouble”, some work will likely also need to be done to clarify that these foods may be served, how that can be done safely, and who (such as an EHO experienced with traditional foods, a local Elder, another experienced ECE provider) might be consulted to answer questions or concerns.

Monitoring ocean conditions and wildlife health and testing food products

A final important area of recommendation identified by key informants was the importance of good monitoring of ocean conditions and wildlife health. One EHO pointed out that while the safety of waters (in terms of, for example, *Vibrio* levels, temperature and toxic algal blooms) are closely monitored for the purposes of the commercial shellfish industry, this monitoring should also be expanded to include waters where seafoods are harvested by First Nations communities for personal/community consumption. Similarly,

wildlife health monitoring—tracking wildlife health issues with a specific focus on those with implications for humans—would be a further step towards ensuring the food safety of wild game.

At the processing end of the food chain, one key Informant also suggested pathogen testing of processed traditional food products, such as smoked or canned salmon, with the idea that with such testing would help validate traditional food safety practices. This process would need to be very transparent, to assure the people providing their traditional food products that they would not be required to stop preparing foods in their traditional ways if tests revealed risks, but to work with the EHO on minimize contamination risks. A few EHO key informants also mentioned the possibility of drawing on the BCCDC as a trusted resource to do some of this testing, or simply provide background research or advice around the perceived or real food safety dangers of traditional foods.

Appendix H: Licensing officers' perspectives on traditional foods

The three LOs interviewed in Phase two (one via telephone and two via e-mail) have been LOs for eight to 15 years. One LO, working in a more densely populated region, had a caseload that includes an AHSUNC program but no on-reserve programs. The other two LOs worked in a less densely-populated region with caseloads of various types of programs for Indigenous children, both on- and off-reserve.

The LOs whose caseloads include First Nations programs referred several times to “Federal EHOs.” They identified difficulties accessing “Federal EHOs” in remote communities as a challenge for early childhood programs wishing to obtain certificates of compliance for their kitchens. It is unclear if these LOs are aware that FNHA EHOs are now delivering services formerly delivered by Health Canada EHOs since they have little to no communication with them. It is also unclear if the challenge of accessing EHOs is related to staffing issues in remote locations, or to the First Nations operating without a *CCLR* license. These LOs are in regular communication and share information with the regional health authority EHOs who inspect off-reserve facilities.

The practices of the LOs differ between the two regions. One LO's approach is to encourage the use of healthy natural foods, safe food storage and handling, and good hygiene practices—what she calls “common sense cleanliness in the kitchen.” She checks that the temperature of the refrigerator is between 0-4°C and that dishes are sanitized, but leaves detailed inspections to the regional health authority EHO. In the other region, LOs are more involved in matters related to food. For example:

- They check to see if refrigerators have thermometers.
- They inspect the kitchens.
- They ensure that kitchen staff have FOODSAFE credentials.
- They require documenting and informing parents of foods served to children.
- They monitor food preparation, packaging and storage.
- They noted that licensed programs must serve foods from a “certified source” implying that they direct the programs to serve market foods.

Although all participating LOs have long experience in their positions, they differ in their understanding and interpretation of the requirements of the *CCLR* on the topic of food. One LO identified the requirement that licensees consider the cultural backgrounds of the children when selecting foods, using that section of the *CCLR* to explain her acceptance of traditional foods as part of the curriculum and observing the occasional serving of non-market traditional foods as long as she sees clean kitchen practices and safe storage of the foods. She explained that there is nothing in the *CCLR* that says traditional foods are not allowed. In contrast, when asked what the *CCLR* requires licensees to do in relation to foods, the other LOs replied: “Ensure food is prepared safely and is packaged and stored correctly” but they did not mention the requirement that licensees consider children's cultural backgrounds.

All three LOs agreed that early childhood programs for Indigenous children should be permitted to serve traditional foods such as privately caught fish and hunted meats. One of the LOs added the caveat that all parents be informed in advance. All three LOs refer concerns and questions to EHOs. When asked why they think early childhood programs for Indigenous children want to be able to accept and serve non-market traditional foods, all of the LOs responded that traditional foods are a way of teaching the children about their cultures and involving Elders and other community members in the early childhood programs.

One LO commented that the EHO regulations are more rigid and their enforcement approach is more technical and not accommodating to cultural differences. In her region, the two professional groups do not regularly share information about facilities that are on both caseloads. She identified a significant difference of opinion among EHOs in her health region regarding Section 2(c) of the *Food Premises Regulation*, which exempts “premises in which food is prepared or served by voluntary caterers for functions or gatherings limited to members of their own organization and invited guests.”⁶⁰ She reported that some EHOs are of the opinion that this exemption applies to early childhood programs for Indigenous children, while another EHO felt that this exemption applied only to events held outside daycare hours. The disagreement regarding the regulation has resulted in inconsistent enforcement within the health region.

When invited to recommend changes to the food regulatory system related to traditional foods in early childhood programs one LO suggested additional cultural sensitivity training for regional health authority employees and clear provincial guidelines on the topic of traditional foods so everyone is clear on what is permissible. She advocated an “intent document” to promote consistency among health authorities and among individual LOs. She is of the opinion that the *CCLR* supports the inclusion of traditional foods but believes there should be changes to the food regulations to remove barriers. Another LO recommended involving childcare programs in the development of the regulations and identified possible financial benefits to programs being allowed to serve traditional foods.

Appendix I: Case studies - visits to early childhood programs

These notes summarize visits to three First Nations and one off-reserve early childhood program where the researchers met with program managers, early childhood educators, Elders and parents.

Provincial food regulations create barriers to serving traditional foods

- There are significant differences between licensed early childhood programs and programs that operate without a *CCLR* license located on-reserve. Programs that operate without a license provide children with greater access to traditional foods. For example, in one on-reserve facility, the children in the licensed child care program had access to salmon and halibut from an approved off-reserve fish processing plant, while the Aboriginal Head Start On-Reserve program operating without a *CCLR* license in the same facility had access to a wide variety of traditional foods donated by the families, program staff and other community members.
- The off-reserve case study was conducted in a licensed Aboriginal Head Start in Urban and Northern Communities (AHSUNC) preschool program. The facility has a food service permit issued by the regional health authority EHO. The program serves both donated and purchased non-market traditional foods six to eight times a year at special events attended by parents and Elders after regular programs end. However, these special events cannot be held in the AHSUNC building as the program cannot serve any non-market traditional foods on site.
- The AHSUNC program's special events follow cultural protocols and involve ceremonies. The program coordinator explained "it would be inauthentic to mark these ceremonies with cheese and crackers."
- The AHSUNC program serves the children what the program coordinator calls "bar code" salmon, purchased from grocery stores. They have less trust in the freshness and quality of market salmon than salmon from local fishers.
- The off-reserve program personnel identified that, when working with EHOs, a lack of understanding around the importance of traditional foods to Indigenous families creates a key barrier in working successfully together.
- The First Nations are delivering both licensed programs and programs operating without a *CCLR* license at the same time, in the same buildings. Operating without provincial licenses allows them to deliver richer, more culturally appropriate programs where parents are in attendance and have opportunities to learn about traditional foods along with the children.
- Program personnel reported reluctance to participate in the provincial child care licensing system because it limits the food they can serve, specifies the ages of children who can attend and creates barriers to Elder involvement.
- Parental involvement is one of the six components that the Public Health Agency of Canada requires AHSUNC preschools to incorporate into their program. The program coordinator identified sharing food

as a strategy for encouraging family participation, but they are not able to serve non-market traditional foods there.

- Quote from a First Nations licensed program: “[The *CCLR*] makes it really hard because we have to follow *Canada’s Food Guide* or the First Nations, Inuit and Métis Food Guide. ... but we aren’t allowed to serve it [traditional food].”

Community members ensure food is prepared and served safely

- In the First Nations visited by the researchers, the majority of staff have current FOODSAFE certificates in both licensed programs and programs operating without a *CCLR* license.
- All First Nations program personnel emphasized that they are either personally involved in hunting, harvesting or fishing for the traditional food, or have strong personal relationships with the people who do. All of the programs vet the food they receive for safety.
- Several First Nations program staff spoke about the long history of knowledge of local hunters and fishers in regard to environmental safety. Program staff indicated that community members who hunt, gather and fish know what local areas to avoid (for example, avoiding areas where they know chemicals have been sprayed.)
- First Nations program staff spoke about the importance of respecting harvesting seasons—knowing when each type of traditional food is safe to harvest, hunt and fish. They also spoke of the importance of “letting the land rest”.
- Most of the early childhood educators in the AHSUNC preschool have FOODSAFE certificates. Parents interested in helping in the kitchen are invited to take FOODSAFE training if possible and affordable.

Communities differ in their ability to access traditional foods

- First Nations differ in their access to land and water resources and this affects the availability of traditional foods.
- The First Nations early childhood programs are accessing traditional foods in two ways:
 1. Traditional foods that are hunted, fished or harvested by community members for use in the community without being processed in licensed food processing facilities. These foods are not part of the provincial food regulatory system. Childhood programs operating without a *CCLR* license receive these non-market foods directly from the children’s families, from staff members, and other community members.
 2. Traditional foods are hunted, fished or harvested by community members, then processed in regulated facilities before the early childhood programs receive them.
- Traditional foods come into on-reserve early childhood programs through a variety of sources:
 - Donated directly to the program through staff members and their families, or Community members (usually parents or other family members)

- Received through the First Nation's office
 - Donated by nearby off-reserve processing facilities
 - Purchased by programs from commercial sources
 - Provided by employment centres and other community initiatives
 - Donated by Fisheries and Oceans Canada
- There are various activities related to food operating within the First Nations communities visited by the researchers, including:
 - an employment program that includes food processing and distribution
 - a community pantry at the Elders' centre
 - an on-reserve commercial kitchen approved by the regional health authority EHO and FNHA EHO that prepares meals for both on-reserve and off-reserve schools
 - The cost of purchasing food from commercial sites, paying hunters' and fishers' costs, and paying cut and wrap or processing fees are barriers to the use of traditional foods in early childhood programs. Early childhood program personnel pointed out that direct donations of traditional food by the children's families are preferred because they provide the best teaching opportunities at the least cost.
 - Educators from the First Nations case studies sites identified issues around food security as an important reason to teach children and parents about traditional food gathering practices. Educators from different communities reported very different levels of knowledge and/or ability of parents in regard to hunting, fishing and gathering. In some communities, large numbers of families regularly ate non-market traditional food at home while in other communities the majority of families were only beginning to relearn the knowledge required.

Traditional foods feed the body, the mind, and the spirit

- Educators, Elders, and parents reported that serving traditional foods provides opportunities for children to learn their Nation's language, history and spiritual teachings. All aspects of cultural learning are connected to their traditional foods: connections with the land and waters, respect for the environment, prayers and rituals, and ethical principles that guide community life.
- Quote from one program: "We want children to see, feel, smell, taste and hear their culture and language."
- A parent explained that young children are developing their palates and appreciation for the flavours of traditional foods and these preferences stay with them as a basis for healthy eating habits throughout their lives.
- The researchers observed children choosing to eat traditional high-protein foods over mainstream food such as potatoes. Children were consistently reaching for herring roe first, including children as young as nine months.

- Early childhood program personnel identified the benefits of taking the children outdoors to learn from an Elder where and how to gather traditional foods. The program is operating without a CCLR license and an Elder attends every day.
- When speaking to one of the community Elders, her joy and pride at sharing her traditional knowledge was evident. She spoke of her responsibility to share her teachings and her fears about losing important cultural knowledge. Regarding the importance of providing traditional food in early childhood programs, she spoke about the enthusiasm with which the children embraced the food and how she would share important knowledge with their parents about accessing the best quality food for the children so that they could gather it and serve it at home.
- Quote: "(Traditional food) is way healthier, and it helps us get back to our roots. The parents of the children love when their kids get the traditional foods, because a lot of them have lost that, they don't know how to can or make bannock. "

Champions are the key to including traditional foods in early childhood programs

- The First Nations that have been most successful including traditional foods have local champions. These champions are often, but not always, from the early childhood programs.
- It is disheartening for the champions when local authorities put up barriers.
- Early childhood personnel who promote the use of traditional foods understand their obligation to share what they have learned from the Elders.
- Champions from outside of the early childhood programs work respectfully with and for the community to ensure quality wild food is getting to the children. These champions act as facilitators.
- Educators reported that children who eat traditional food at home often push away processed market foods at the daycare, resulting in significant waste.
- Educators spoke about the benefits of providing access and teachings to both First Nations children and non-Indigenous children and how this early access supports mutual respect and understanding.
- Quote: "When the tide is low the table is set."
- Quote: "The importance of traditional foods and medicine is that it's empowering our people to know who they are, where they come from, and where they're going. In order to do that, we need to do it in a most holistic way, so that we can balance out any barriers, in order to do that, we need to listen to our teachings that we have been doing for hundreds of years. And when you do that you then create a space of trust. The importance of this is that as a people if we want to move forward, we have to have a voice and teach others of the wonderful things that we do, and that it's possible. I think this empowers our communities and our nation."

Early childhood educators made recommendations

- Educators unanimously recommended reducing barriers to traditional food provision. They spoke about respect for community knowledge and the importance of children and families learning or relearning traditional practices involving the whole path from the land and the water to their forks.
- One educator suggested that First Nations' early childhood facilities take steps to become approved food processing sites for traditional foods in order to be able to supply licensed programs. The educator suggested that food coordinator positions be created to implement this proposal.
- Educators unanimously requested that a resource be developed to highlight the practices of communities around the province so that early childhood programs can learn from each other and be inspired.
- Quote: "I think the barrier is regulations, but the financial piece is there too. We would actually save a great deal if we were able to provide traditional foods. Instead of having to adhere to the Canadian food guide, so that is a bit of a barrier, and I think the barrier of who we are, and how we collect it, I think there is a bit of pride there that's been taken away, when we aren't able to share those teachings."

Types of early childhood programs being offered in the sites visited by the researchers:

- Aboriginal Head Start On-Reserve
- Aboriginal Head Start in Urban and Northern Communities (AHSUNC)
- Preschool
- Infant Daycare
- Toddler Daycare
- Infant/Toddler Daycare
- 3-5 Daycare
- Family/Child Drop-In
- Language Nest

Traditional foods being provided in these programs:

- Salmon
- Halibut
- Black cod
- Octopus
- Clams
- Mussels

- Prawns
- Crab
- Herring Roe on Kelp
- Venison soups and stews
- Moose
- Elk
- Bannock
- Wild Berries
- Seaweed
- Sea asparagus
- Stinging Nettles
- Labrador Tea
- Indian Celery

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