

LITERATURE REVIEW

Improving Food Security and Nutrition for Community-based Seniors in British Columbia through Community Food Programs: *A literature review of best practices and existing approaches*

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INTRODUCTION

It has become clear, particularly within the Community-Based Seniors' Services (CBSS) sector, that many community-based seniors (i.e., seniors living independently in their communities) are experiencing or are at risk for food insecurity and malnutrition in British Columbia. This literature review examines the current challenges associated with these issues, outlines some best practices suggested in the literature to address them, and identifies current approaches taken by community-based programs in British Columbia (BC). Best practices for community-based seniors food programs include: conducting a Community Food Assessment; screening individual seniors for food insecurity and malnutrition; adopting a holistic nutrition approach; planning programs that fill a gap in service and consider the existing mix of food initiatives in the community; considering known motivators for seniors' participation; integrating social interaction opportunities, mealtime practices, and education components; and developing community partnerships.

This literature review describes both food insecurity and malnutrition as separate but connected issues experienced by seniors. It distinguishes household and community level food insecurity and highlights a focus on nourishment and holistic nutrition which consider the social, spiritual and mind/body components of nutrition,¹ in addition to the commonly discussed biomedical focus, i.e., disease-preventing and health enhancing. It includes cultural considerations related to food security and nutrition for immigrants and other newcomers and Indigenous peoples. It provides recommendations for community-based senior-serving organizations interested in enhancing the quality of their existing food program or starting a new one. Appendix A lists and describes the types of community food programs that currently exist in BC and includes examples of each. Appendix C briefly highlights new challenges to food security as a result of the current COVID-19 pandemic. This literature review is accompanied by a concise checklist (i.e., *Checklist: Improving Food Security and Nutrition for Community-based Seniors in British Columbia through Community Food Programs*, MacNeil, 2020) which outlines the best practices in a step-by-step format.

FOOD SECURITY, NUTRITION, and COMMUNITY FOOD PROGRAMS

Food insecurity: household and community

Food insecurity, both at the community and household level, is a key public health issue in British Columbia (BC).² Household food insecurity can be defined as a limited availability of nutritionally adequate and safe foods to individuals, or the limited ability to acquire these foods in socially acceptable ways.³ Community food insecurity can be described as a lack of safe, personally acceptable, nutritious diet through a sustainable food system that maximizes healthy choices, community self-reliance and equal access for citizens in a community.⁴

Household food insecurity is often due to financial constraints and is a significant problem in Canada that negatively impacts health and the healthcare system.⁵ In 2017-18, 1 in 8 households in Canada was food insecure⁵. Food insecurity (either type) may mean a shortage of food altogether,⁶ however, often it means a lack of access to healthy or nutritious food. The latter becomes evident when considering the fact that those who are food insecure also tend to be more overweight and obese than the general population.⁴ This is likely due to the lower price of high calorie and less nutritious food compared to healthier foods such as vegetables and fruits.⁷ Households experiencing a lack of food security are more likely to report poor or fair self-rated health, poor functional health, restricted activity, and multiple chronic conditions.⁴ In other words, access to food does not always equate to access to healthy food, nourishment, or health overall.

Income is a major contributing factor to food insecurity at the household level.⁴ Research shows that efforts and interventions designed to increase income may be the most effective way to decrease household food insecurity and overall food need.⁸ A related factor contributing to household food security is owning one's home – studies show that households owning their home have a decreased vulnerability to food insecurity compared to renters.⁴ For seniors, Canada's pension program does provide some level of protection, however, almost 13% of those who rely solely on public pensions experience household food insecurity.¹ Although this number may not be overly alarming, as will be discussed, household food insecurity is only one factor that contributes to seniors' high risk of being malnourished. While economic factors are strongly linked to household food insecurity, a recent qualitative study in Ontario found that sufficient money to purchase food alone does not address food security; informal and formal supports with transportation, good health, eating with others to promote food intake and appetite, and changing the shopping environment to make it easier for older adults are also important factors.⁹ Although community-based seniors service agencies likely cannot directly increase the income of seniors in their community, they can consider the aforementioned findings when engaging in advocacy and recommending solutions.

In the larger context of community food security, many additional factors impact a community as a whole, including food quality, food availability and accessibility, and multiple issues that impact the sustainability of the food system itself.⁴ Factors known to lead to increased food security in communities include increased awareness about food security; access to local, healthy food; food knowledge and skills; community capacity to address local issues; and the development and use of policy that supports community food security.⁶ Research shows that public health solutions should include advocacy for social policies that act upon inadequate income and social determinants of health more broadly, and avoid attempts in addressing food insecurity with food-based solutions alone and health communication around individualized and nutritional failure.³ Community-based agencies may not be able to address these broader and policy-dependent strategies independently but can consider them when advocating for and recommending solutions.

Indigenous peoples and immigrant and newcomers are among the most vulnerable groups for food insecurity.⁴ For immigrants and newcomers, food security means equal access to sufficient and

consistent nutritious, culturally appropriate food.⁴ For Indigenous peoples, it means access to market foods in the conventional system¹⁰, as well as the ability to access important traditional foods through traditional harvesting methods.⁴ The *'Food security for culturally diverse groups'* section in this paper describes in more detail the unique needs of these groups as well as cultural considerations associated with food security.

Lastly, existing food insecurity challenges in BC may be exacerbated by the current COVID-19 pandemic. *Appendix C* provides more detail on this topic.

Malnutrition/malnutrition of seniors

In Canada, about one third of community-based seniors, i.e., those living independently in the community, are at risk of malnutrition.¹¹ Food insecurity is one contributing factor to seniors' malnutrition,¹¹ however, there are several other known factors that act as barriers to food intake for seniors and lead to malnutrition and malnutrition. These include lack of transportation, poor motivation to eat well, poor appetite, and changing food preferences.⁹ Common predictors of poor food intake in Canadian seniors include living alone, missing meals, chewing difficulties, increased body mass index, poor vision, poor appetite, the loss of loved ones,⁹ and a lack of variety of food.⁶ Fortunately, there are also known promoters of food intake: the presence family and friends, convenience food, sufficient transportation, eating a variety of foods, and proximity to a grocery store.⁹

In conjunction with addressing food insecurity, seniors and senior-serving organizations can follow provincial and national guidelines to address seniors' malnutrition: the BC Ministry of Health and the Dietitians of Canada have both developed healthy eating guidelines to enhance the nutrition of seniors with access to healthy food.^{12,13} Nonetheless, researchers recommend that the conceptualization of nutrition go beyond the use of dietary guidelines and the traditional focus of limiting unhealthy foods and promoting the intake of healthy foods. Communities and organizations should instead incorporate a more holistic approach to nutrition which will empower individuals to learn from their body's internal signals about what and how much to eat to meet their needs for nutrition.¹

Nourishment and holistic nutrition

The terms nutrition and nourishment are often used interchangeably, however, there are additional layers that come with using the term nourishment. Nourishment considers nutrition as a means of fulfilling social and cultural needs, forming a healthy attitude towards body image and eating for pleasure, honoring people's ability to make food choices, recognizing the cultural significance of food, as well as the biomedical aspects of nutrition, i.e., for physical needs, preventing disease, and enhancing health.¹ These considerations address Maslow's Hierarchy of needs and are consistent with a holistic approach to nutrition.¹ The term nutrition is often used in the literature, even when considering the additional factors associated with nourishment, and as such is used throughout this paper.

Community food programs

Community food programs have become a common approach in Canada to address malnutrition and food insecurity.⁴ Community food programs, such as food banks, meal programs, and community kitchens, are particularly useful to address food insecurity when targeted to specific populations such as the homeless, low income, and seniors.⁶ Evaluations of these types of programs have shown that they have positive effects in enhancing knowledge of healthy nutrition, food skills, intake of fruits and vegetables, and awareness of the food system.⁴ Regardless of the type of program, the Provincial Health

Services Authority (PHSA) in BC suggest that individual food security programs should address some combination of the following: alleviate hunger and malnutrition, offer nutritious foods, promote human dignity, utilize local resources, support social capital, have a long-term plan for sustainability, and offer an education component.⁶

The PHSA suggests that community food programs should be community-based; their activities and projects should fit within the local political and social atmosphere as well as the context of the community, considering its needs and priorities.⁶ Programs should continually assess their objectives and relevance to vulnerable groups in the community,⁴ such as seniors. The existing mix of programs that are already in place, their impact, and the existing capacity of the community should be considered when undertaking project planning for food security.⁶ Conducting a Community Food Assessment can assist with this process: the '*Community Food Assessment*' section below describes this in more detail. Additionally, community food programs that receive public support should be cost-effective or have cost effectiveness tracking strategies, have clear and appropriate outcome measures including participant outcomes (e.g., knowledge, attitudes, nutrition), and have an ongoing process evaluation in place that tracks key indicators (e.g., staff activities and hours, volunteer activities and hours, members served, etc.).⁶ Finally, evidence-based decision-making should be a key part of the planning process for any population health initiative,⁶ including community food programs.

Several factors have been identified that contribute to community food programs' likelihood of successfully achieving its desired outcomes. Among them, funding is considered a key factor that facilitates success and sustainability.⁴ Dynamic workers, professional support, and community involvement are also important.⁴

BEST PRACTICES FOR COMMUNITY-BASED APPROACHES AND COMMUNITY FOOD PROGRAMS

Community Food Assessments

The first step in planning a community food program is to conduct a Community Food Assessment.¹⁴ A Community Food Assessment is a participatory and collaborative process that examines a community's food-related issues, assets, and resources in order to inform the decision-making process and actions to improve community food security. It has been shown in BC and across Canada that conducting community food assessments result in many positive changes in the food security system.¹⁴ The Provincial Health Services Authority (PHSA) in BC has developed a guide to assist community organizations in conducting these assessments (<http://www.bccdc.ca/pop-public-health/Documents/communityfoodassessmentguide.pdf>) and a Companion Tool, which assists with developing indicators (<http://www.bccdc.ca/pop-public-health/Documents/communityfoodsystemassessmentacompaniontoolfortheq.pdf>).

Nutritional screening and medication review

While Community Food Assessments identify the risk factors of an entire community, nutritional screening identifies the level of risk of individual seniors. Identification of those that present with risk factors and inadequate food intake is an essential step in preventing overt malnutrition for individual seniors.⁹ Screening tools, which can be used by community health centres, clinics, and doctor's offices, have been developed that can measure the presence of risk factors and poor food intake in seniors.⁹ Self-screening tools can also be used by cognitively intact seniors (i.e., self-assessments), such as the SCREEN tool.⁹ Screening by health professionals should be promoted within communities as older adults who are screened are often encouraged to participate in meal programs and other community services.⁹ Seniors' own recognition of their nutritional risk has also been shown to lead to greater participation in food program activities.¹⁵

As many seniors take several daily medications, it is also important to consider how these medications affect food intake and how diets may need to be adjusted. For example, some drugs, such as antidepressants, affect one's sense of taste.¹⁶ Some drugs affect absorption of vitamins, interfere with metabolism in the liver, and cause delayed elimination of vitamins (increasing the risk for excessive vitamins in the body).¹⁶ Others can affect one's thirst or increase voiding, which can lead to dehydration.¹⁶ For these reasons and many others, seniors should be nutritionally screened and receive education from a nutritionist or health care provider.

Secondary and tertiary prevention strategies

Community food programs for seniors that aim to address malnutrition can be said to exist at three prevention levels: primary, secondary and tertiary.⁹ Most Canadian community nutrition interventions for older adults currently occur at a tertiary prevention level which include activities to prevent further progression for seniors who are already exhibiting signs of overt malnutrition.⁹ Tertiary level interventions are certainly appropriate for a portion of the population of seniors (i.e., those who are malnourished); for example, structured meal programs have been shown to prevent further declines in nutrition in malnourished older adults.⁹ Nonetheless, these types of interventions are not the most effective or appropriate prevention strategy for all seniors.

There are many community-based seniors in Canada who describe not being ready for the tertiary-level services.⁹ While primary prevention may not be suitable as it focuses on removing risk

factors altogether before they occur, secondary prevention strategies are appropriate for many older adults who likely have some risk factors for poor food intake.⁹ Secondary prevention includes interventions aimed at persons who are at risk (e.g., older adults) but not already experiencing overt malnutrition and its effects. This includes screening (described above) and nutrition education programming, such as cooking classes and groups, individual counselling, and recipe exchanges. Research suggests secondary prevention approaches can prevent this group of seniors, i.e., those not experiencing overt malnutrition, from becoming more malnourished.⁹

The need for both secondary and tertiary prevention approaches for seniors at different stages of malnutrition is supported by other researchers who suggest that prevention strategies should be multifaceted, including both nutrition education on healthy eating and provision of nourishment through food-based programs.¹⁷

Short-term and long-term relief food security programs

Community food programs can also be categorized into those that support short-term food relief and those that support long-term relief. Both of these issues equally need to be addressed and the United Nations recommends that communities implement strategies that meet both immediate needs and longer term needs of food insecurity.⁴

Programs that address short-term food security include charitable food programs such as food banks, soup kitchens, and meal programs.⁴ These types of programs do not address the root causes of food insecurity but do provide short-term relief.⁴ Research shows that formal meal programs can prevent further declines in nutritional risk and have the potential to improve or maintain the nutritional status of seniors and prevent health and quality of life declines.¹⁸ Researchers therefore recommend that seniors who are in need of supports for food shopping or preparation be encouraged to participate in meal programs as a means of maintaining or improving their nutrition.¹⁸ Nevertheless, increased use of these programs over time has been seen to reflect a declining status of the senior and a discontinued use can be associated with better nutrition.¹⁸

Programs that support longer term food security are those that contribute to food skills such as planning and preparing food. These include community/collective kitchens, urban agriculture and community gardens, affordable and/or farmer's markets, and subsidies for low-income people in the form of coupons or vouchers.⁴ *Appendix A* describes these programs and others in more detail.

Programs on the food security continuum

Community food programs can also be categorized as existing on a food security continuum. The continuum ranges from charity, which includes food banks and soup kitchens (similar to short-term relief strategies); to community development, which includes community kitchens and gardens (similar to long term strategies); to social enterprise, which includes government investment and infrastructure development.⁶ The BC Ministry of Health suggests that a range of activities along the continuum should run parallel and in partnership with one another, with a population health promotion model, to address food security in communities.⁶

Diversifying programming can help community food programs meet the complex needs of people they work with.¹⁹ Food banks, for example, can be more effective when complemented by markets, community meals, or food skills programs such as community gardens and cooking classes.¹⁹ A drop-in meal program next to and a part of a food bank can provide good food, as well as create a common space for social interaction. The drop-in area at a food bank can also be used for people to wait without having to line up, which is known to be stressful and stigmatizing.¹⁹

Outreach and participation

Understanding factors that may contribute to the uptake and continued participation of seniors in a community food program can assist in the planning process and contribute to positive outcomes. Although seniors are a heterogeneous group, some common characteristics may be considered when planning program outreach. In one research study, it was determined that intrapersonal motivators such as personal health beliefs were the most common motivators for older adults to participate in a nutrition program. This correlates with a previously mentioned finding that seniors' recognition of their own nutritional risk can lead to greater participation in food program activities.¹⁵ This study also found that interpersonal factors, such as the influence of significant others and one's environment, and medical encouragement from a doctor to eat healthy, contribute to seniors' motivation to participate in nutritional interventions.²⁰

In a nutritional education program for seniors in Ontario (i.e., the Evergreen Action Nutrition program), collaborative development with nutrition educators, researchers, and representatives from a group of seniors allowed for program flexibility to meet the changing needs of the target population.¹⁵ Collaborative approaches to nutrition education ensure that activities and curriculum content meet participant needs by including members of the target group (e.g., seniors) in the planning and delivery process.¹⁵ Research suggests that these types of approaches can lead to sustainability of a program because they contribute to building a sense of ownership by the participants, which leads to program effectiveness and maintenance.¹⁵

Barriers, such as transportation to the facility, stigmatization, and policies that limit the frequency of assistance are seen to contribute to decreased participation in certain food programs, such as food banks.⁴ These should be addressed.

Culturally diverse groups, including Indigenous peoples, have unique needs and priorities and as such their motivations for participation may vary. The '*Food security for culturally diverse groups*' section below discusses this in more detail.

Social interaction and social capital

As mentioned, lack of appropriate food is only one factor that contributes to seniors' malnutrition. Other non-food dependent factors that contribute to the issue include lack of motivation, poor appetite, living alone, and the loss of loved ones. Research shows that eating in the presence of known others, i.e., family and friends, can enhance nutritional intake.²¹ When around friends or family, nutritional intake and quantity of food consumed can increase by up to 40%–50%.²¹ Seniors that participate in programs that provide meals with socialization appear to be healthier, at less nutritional risk, and more socially active than those who participate in meals-only programs such as meals on wheels, or non-nutritional related services (e.g., home care, foot care, etc.).²² In one study, seniors who participated in programs that provided meals with socialization were also more likely to do their own grocery shopping.²²

Researchers have suggested that a key component of any community food program should be the building of social capital, particularly when the main objective is to support access to healthy food for vulnerable populations,²³ such as seniors. Food security programs that build social capital – i.e., the resources that emerge from networks of social interactions and facilitate achievement of individual and collective outcomes⁶ – and community capacity are more likely to achieve long-term sustainability than those ones that do not.⁴ Community food programs can build social capital amongst the participants by bringing together participants to share activities, such as in community gardens and community kitchens, or sharing in volunteering, such as at food banks and other food distribution programs.⁶ This is especially

true if the activities happen over a sustained period of time.⁶ In Vancouver, many festivals, community gardens, and intergenerational/cross-cultural food sharing events have engaged residents as volunteers and active participants and this has led to increased community capacity and strengthened community relationships.²³

Mealtime practices and person-centered approaches

The World Health Organization (WHO) states that mealtime interventions, such as family-style meals and social dining, are important approaches for managing undernutrition in seniors, especially those who are living alone or who are socially isolated.²⁴ Interventions to improve the mealtime experience include encouragement with eating, a more stimulating environment to eat in, increased access to food, and more choice of food or more appealing food (visually and taste).²⁴ Researchers suggest that mealtime care, especially for seniors, also needs to be focused on holistic and person-centered care.²¹ This is supported by others who say that malnutrition prevention interventions should be tailored and customized to meet the needs of a heterogeneous seniors population.¹⁷ Person-centered approaches are those that prioritize learning about each participant's background, personal history, preferences, and needs and incorporating this knowledge into the design of a program's activities.²⁵ Person-centered approaches should build on individual strengths and interests,⁵ and meet individual seniors' physical, social, emotional/psychological, and spiritual needs.²¹ A key component of person-centered care is also promoting social interaction.²¹

Education components

Building food knowledge and skills, through cooking workshops and community/collective kitchens, is another strategy that has been shown to improve healthy eating and social cohesion, and is a recommended best practice for addressing malnutrition and food security.⁴ As previously mentioned, this type of intervention (i.e., nutrition education) is considered secondary prevention and is appropriate for groups who are at risk (i.e., older adults) but not experiencing overt malnutrition and its effects.

In Vancouver, the Vancouver Coastal Health (VCH) Community Food Action Initiative (CFAI) was able to increase awareness about food security, food knowledge and skills, and community capacity to address food security through classes, workshops, gardens, community kitchens, and learning events for thousands of people in rural and urban communities in the VCH region.²³

The 'Moving Food Policy Forward in Surrey and White Rock' Project in BC provides suggestions for incorporating nutritional information into the routine of communities: discuss nutritional tips at community meals and in newsletters, include a workshop on the Canada Food Guide that is language and culture specific, and have a registered Dietitian provide a nutrition workshop on healthy eating based on a list of topics that people (e.g., seniors) in your community have said they want to learn about.²⁶

Interestingly, researchers in Canada have found that in general seniors are willing and able to participate in health education and that existing seniors centres are a good place to host these initiatives as they provide opportunities for social support and engagement in a comfortable, senior-focused atmosphere.⁹

Nevertheless, access to good, affordable food remains a greater risk factor to food insecurity and malnutrition than lack of education.⁶

Food networks and community partnerships

To address food insecurity on a large scale, the BC Ministry of Health (MH) suggests that activities on the food security continuum – such as food banks, education programs, and government infrastructure

– run parallel and in collaboration with one another as part of a population health promotion model.⁶ The MH also recommends intersectoral partnerships with the food industry, agricultural sector, and social agencies that promote community food security programs.⁶ The Government of Canada calls for similar intersectoral partnerships, including between agriculture, environment, education, housing, transportation, the food industry, trade, and family and social services, as these sectors all have a role to play for Canada’s Dietary Guidelines to have effects on the nutritional health of Canadians.²⁷

Networking and partnering with neighbourhood agencies can build community support and prevent service duplication,¹⁹ and can contribute to a Community of Practice among agencies providing food to seniors. More interaction between community food interventions, for example, food bank linked with community gardens, has also been shown to result in more social capital within the community.⁶

In Vancouver, Vancouver Neighbourhood Food Networks are an example of what some partnerships may look like. These networks are coalitions of community members, community organizations, agencies, and businesses who work collaboratively to achieve food system goals and seek to increase overall community capacity at the neighbourhood scale.²⁸ Neighbourhood Food Networks can increase levels of food security among vulnerable and marginalized populations such as seniors, increase the number of community food assets, utilize food as a tool for community development, promote inclusion and a sense of belonging, and build partnerships with other community coalitions, non-profits, governments, and businesses.²⁸

Existing community food programs, such as community meals, are also great places to connect users with other programs, resources, and supports that are available in the community, including non-food related ones.²⁹ Researchers in Greater Vancouver found that members of food banks have a high prevalence of health concerns and desire for increased health support and as such recommend that food banks provide opportunities to link with health promotion services, including counselling support, and provide work, volunteer, and skill building opportunities.⁸ Community food networks and partnered organizations can also contribute to a community approach to reducing stigma around the use of short-term food relief programs by engaging in shared messaging; for example, by referring to food banks as sustainable and environmentally friendly solutions to excess food.⁸

FOOD SECURITY FOR CULTURALLY DIVERSE GROUPS

Food security can be defined as occurring when “all people have a safe, *culturally* acceptable, nutritious diet through a sustainable food system that improves self-reliance and social justice”.^{23p.28} The term food ‘sovereignty’ can also be used; it refers to the right of people to healthy, culturally appropriate food and, in particular, the right of people to define and control their own food and agricultural systems.⁴

Various individual, cultural, historical, social, and economic influences shape one’s food choices.⁴ As mentioned, offering choice is a part of a food security and is important in improving the meal-time experience. Selecting one’s own food also offers the opportunity to have personally or culturally significant foods.¹⁹ Therefore, a uniform distribution of the same foods and meals to culturally diverse groups is not an appropriate or effective measure in addressing food security.

Community food programs should acknowledge the value of choice, including at food banks and large congregate meals. When offering a choice or the ability to purchase for oneself, such as with a voucher system or affordable market, is not feasible, the person purchasing food for a community food program should have a culturally diverse knowledge of cooking.¹⁹

Besides the food itself, organizations may need to make adaptations to their activities, programs, and outreach strategies to enhance their cultural competency and relevancy. Researchers suggest that interventions such as nutrition education and meal programs should include racially and culturally appropriate components to meet the requirements of the diverse population of older adults.¹⁷ Several tools and training opportunities are available for increasing the cultural competency of community interventions and programs (see *Appendix B*). In Vancouver, VCH’s Community Food Action Initiative increased food knowledge and skills of its participants by organizing workshops and events centred around traditional foods for different cultural groups to help reconnect people to traditional and/or cultural knowledge about nutrition.²³

Finally, a variety of nutritional resources relevant to BC seniors have been translated into multiple languages and can be used by organizations providing food to linguistically diverse populations (see *Appendix B*).

Immigrants, refugees, and newcomers

Research shows that recent immigrants in Canada experience more food insecurity compared to the general population.⁴ Although economic access to food (due to lower income) is one contributing factor, there are also issues related to the religious and cultural adequacy of food within the food system environment.⁴ For new immigrants, food security means equal access to sufficient and consistent nutritious, culturally appropriate, quality food.⁴ This not only addresses nutritional concerns but can lead to a sense of feeling at home for this population.⁴ Receiving recognition and acknowledgement of their food from others can also represent a symbol of welcome to new immigrants.⁴

Considering the significance of food within culture, community food programs should have an understanding of common characteristics of different cultural groups’ food practices and diets, especially for cultural groups living in their community. Different religious groups also have various dietary restrictions, particularly around beef, pork, or other animal products. Organizations providing meals or food should review common dietary restrictions of these groups (see *Appendix B*).

Indigenous peoples

Indigenous peoples living both on and off reserve are among the most food insecure groups in Canada.¹⁰ As mentioned, food security for Indigenous peoples means access to market foods in the

conventional system,¹⁰ as well as the ability to access important traditional foods through traditional harvesting methods.⁴ Traditional foods have meaning in Indigenous cultures and are linked to the environment, family, community, ancestors, and youth.³⁰ These foods are nutritionally, culturally, and economically important for the well-being of these communities,⁴ and are often more nutritious than conventional market foods.¹⁰ Both dietary quality and energy intake improve when Indigenous peoples consume traditional foods.¹⁰ The receiving and sharing of foods also allow for the practice of important cultural values such as cooperation, reciprocity, respect and relationships.³⁰ Despite these findings, Indigenous peoples often describe facing barriers in accessing traditional foods. Barriers include the loss of traditional knowledge due to historical reasons and assimilation, increased migration to urban centres, and a change in lifestyle, with less time to hunt, fish or gather.⁴ Prioritizing cultural competency and person-center approaches, as discussed, could create more opportunities for these processes to take place.

For many Indigenous communities, access to traditional foods is part of their everyday life.³⁰ Traditional diets vary by region and differ depending on if an individual lives in an urban area or rural or on a Reserve.³¹ However, some common elements include fish, land mammals, root crops and greens, mushrooms,⁴ and bannock.³¹ The most prevalent are salmon, moose, and berries.⁴ Northern communities may rely on canned and frozen vegetables and fruits and powdered and canned milk due to the accessibility and expense of transporting fresh foods.³¹ The First Nations Health Authority has developed Healthy Eating Guidelines for Indigenous individuals to make healthier food choices in their daily life or during group gatherings. It includes tips on safely handling and serving traditional food at community events and meetings (see Appendix B).

Solutions to increase access to traditional food, and therefore improve food security, include the transfer of traditional knowledge from Elders to younger generations, sharing and trading of traditional food, and celebrating together in cultural feasts.¹⁰ A number of First Nations communities in BC have also improved their diet quality and food security by establishing community food programs such as community gardens, food banks, community kitchens, and educational programs for traditional food harvesting and food preparation.⁴ Opportunities for knowledge transfer could be integrated with other nutritional education initiatives previously mentioned, such as workshops and classes.

Non-food related cultural factors should also be considered when providing services to Indigenous populations to ensure they are culturally competent, and organizations should understand best practices for engaging and working with Indigenous populations. For example, spiritual practices are part of Indigenous culture and most business relationships, so organizations should make time and space for these,³² and meaningful and trusting relationships that are ongoing and long term should be prioritized.⁹

RECOMMENDATIONS

The findings outlined in this literature review offer a number of recommendations for community-based organizations looking to start a new community food program, enhance an existing one, or address seniors' malnutrition and food insecurity in other ways. The steps outlined in the accompanied checklist for this literature review (i.e., *Checklist: Improving Food Security and Nutrition for Community-based Seniors in British Columbia through Community Food Programs*, MacNeil, 2020) parallel the listed recommendations.

1. Conduct a Community Food Assessment, if needed, to examine the community's food-related issues, assets, and resources to inform the decision-making process and actions of an existing or new community food program.
2. Identify and consider the existing mix of programs already in place in the community. Plan for programs that fill a gap in service, do not duplicate others, and fit into the local community context and its needs. Prioritize addressing some combination of the following: alleviate hunger and malnutrition, offer nutritious foods, promote human dignity, utilize local resources, support social capital, have a long-term plan for sustainability, and offer an education component.
3. Encourage the use of screening tools for malnutrition by health care providers or community health centers in the community. Promote the use of self-screening by seniors for malnutrition and a self-acknowledgement of malnutrition if present (as this often leads to greater participation in food programs).
4. Plan for and prioritize addressing food insecurity at the household and/or community level, where applicable. Consider important factors that lead to increased household and community food security such as income, transportation, food knowledge and skills, as well as availability and accessibility of healthy and personally acceptable or chosen foods. Acknowledge other factors besides food insecurity that contribute to seniors' malnutrition when planning programs, such as living alone, loss of loved ones, and absence of family and friends.
5. Adopt and promote a holistic view of nutrition and nourishment, which fulfills social and cultural needs, honors people's ability to make food choices, etc. when advocating for services and implementing programs.
6. Contribute to the existing mix of initiatives and gaps in services in the community for secondary (e.g., nutrition education) and tertiary prevention (e.g., community meals); short-term (e.g., food banks) and long-term (e.g., affordable markets) relief; and along the food security continuum (i.e., charity, community development, and social enterprise). Acknowledge the importance of multifaceted and coordinated approaches in these areas and plan for programs that address a need.
7. Consider known motivators for seniors' participation in nutrition programs, such as recognition of own nutritional risk, their personal health beliefs, influence from significant others and their environment, and encouragement from a doctor to eat healthy. To increase or maintain participation, collaborate with seniors and multiple sectors when developing programs.
8. Create opportunities for social interaction within food programs, such as eating around friends, family, or other seniors. Build social capital by supporting or implementing food program activities that bring participants together to share activities or share in volunteering.
9. Integrate mealtime practices into programs, such as stimulating environments, the ability to choose between options or select own food, and visually appealing and tasteful food. Consider different cultural food practices as well. Prioritize person-centered, holistic approaches that consider individuals' backgrounds, preferences, needs, and strengths.
10. Include education components into programs to increase the ability of seniors to access healthy food, become aware of food security issues, and increase food knowledge and skills. Learning can take

place through activities such as gardening and garden tours, community kitchens, cooking skills workshops, workshops with dietitians, and group celebrations such as festivals or feasts.

11. Develop partnerships with other sectors to promote and enhance programs, such as the food industry, family and social services, and transportation. Collaborate and develop links with other community food programs (e.g., food bank linked with a community garden) and connect users with other available programs, resources, and supports in the community (e.g., health services, etc.).
12. Acknowledge the right of different cultural groups to access culturally appropriate and personally acceptable and chosen foods that fulfill social and cultural needs. If serving food, ensure that cooks and food providers have an understanding of common foods and food practices, including religious dietary restrictions, of the different cultural groups being served.
13. Include racially and culturally appropriate components to nutrition education and meal programs such as workshops and events centred around traditional foods to meet the needs of diverse populations of seniors in the community.
14. For Indigenous seniors, prioritize access to traditional foods and food practices as well as access to market foods in the conventional system. Support opportunities for the knowledge transfer of traditional foods and practices from Elders to younger generations and the receiving and sharing of foods as these allow for the practice of important cultural values such as cooperation, reciprocity, respect, and relationships. Consider other non-food related best practices for engaging with Indigenous populations.

CONCLUSION

Seniors are at increased risk of experiencing malnutrition and food insecurity in BC and across Canada. Community organizations looking to address these issues can do so through community food programs as these are shown to be effective. Organizations should identify and consider the existing mix of programs and initiatives already in place and gaps in services in their community. Programs should fill a gap in service, not duplicate others, fit into the local community context and its needs, and contribute to a multifaceted and coordinated approach to addressing food insecurity and malnutrition. Community food programs should prioritize addressing some combination of the following: alleviate hunger and malnutrition, offer nutritious foods, promote human dignity, utilize local resources, support social capital, have a long-term plan for sustainability, and offer an education component. Programs should implement practices known to increase effectiveness such as providing opportunity for social interaction, valuing mealtime practices and person-centered approaches, and developing food networks and partnerships with other organizations. Immigrants, refugees, and other newcomers, as well as Indigenous peoples are at a higher risk for malnutrition and food insecurity. Food security for these groups means access to traditional and cultural food as well as conventional market foods. The 15 recommendations included in this review, along with the accompanied checklist, can serve as guidance for CBSS (Community-Based Seniors' Services) agencies and other community organizations looking to mitigate the malnutrition and food insecurity experienced by seniors in BC.

APPENDIX A: List of existing community food initiatives relevant to seniors in British Columbia

The location of these programs, and many others, can be found by looking at Food Maps that have been developed for several communities (see Appendix D).

Affordable markets and voucher / coupon system

Affordable farmer's markets have been shown to improve community access to healthy foods.⁴ Buying one's own food offers a choice to purchase preferences, specific ingredients that are needed, and personally or culturally significant foods.¹⁹ These markets can be targeted to existing food bank members as many who use food banks are employed and may have some resources to buy low-cost produce.¹⁹ Subsidies for low income people in the form of coupons and vouchers for use at farmers' markets, in combination with knowledge and skill building programs, also have a positive impact on food knowledge and healthy eating.⁴ Farmer's Markets can be ongoing or temporary/periodic.

In BC, the Westside Community Food Market in Kitsilano takes place once a week in the summer – a small area in the neighborhood transforms into a small community food market where local and sustainably produced goods are sold on site by the people who grow and/or prepare them.²⁸ The Farmer's Market Nutrition and Coupon Program provides weekly coupons to seniors (and other vulnerable groups) that can be redeemed for fresh produce, meat, fish, eggs, dairy, nuts, and herbs at local participating farmers' markets.⁴ The Quest Non-for-profit Grocery Market in Vancouver also participates in a voucher system, where community resource partners can purchase market vouchers to distribute to their own clients to use at their low-cost grocery market.³³

Community gardens and urban agriculture

Community gardens are initiatives that support long-term food security.⁴ Skills and knowledge related to growing and producing food have been shown to improve access to healthy food and consumption at the household level.⁴ Community gardens improve nutrition; enhance food security; contribute to leadership development, community organization, and social capital; and have positive physical and psychological impacts on individuals.⁴ Nonetheless, they may have limited ability to address food security issues for those in severe poverty.⁴ When implemented, they should be structured to provide maximum benefit possible to the most vulnerable members of the community,⁴ such as seniors.

In BC, the Earthwise Society's Garden Buddies Program has increased the physical activity and social connections of local seniors by involving them in shared gardening and nature based activities.³⁴ This program also has a home-visiting component (see '*Home Programs*' section below). Examples of other Community Gardens, such as the Seniors Garden Program in Saanich which provides seniors with the opportunity to learn more about gardening and to grow vegetables,³⁵ can be found online (e.g., see: <https://www.saanich.ca/EN/main/community/agriculture-food-security/community-gardens.html>).

Community kitchens

Community kitchens can improve food security for participants by increasing access to adequate amounts of healthy food.³⁶ Evaluations have found that community kitchens are an important source of food related knowledge and skills.⁴ They increase participants' consideration of nutrition when planning meals, food variety, and cooking, shopping and budgeting skills.⁴ These initiatives typically support longer-term food security,⁴ however, they have limited potential to resolve underlying food security issues rooted in poverty.⁶

In BC, Oak Avenue Neighbourhood Hub Society's 'Senior's Kitchen' helps seniors learn about nutrition, budgeting, and shopping, as well as the opportunity to meet people in the community and develop friendships.³⁷

Community meals or congregate dining (i.e., with socialization)

Congregate or community dining, in which groups of individuals eat together, provide opportunities for socializing among high-risk older persons.¹⁸ As previously mentioned, it has been shown that seniors that participate in programs that provide meals with socialization appear to be healthier, at less nutritional risk, and more socially active than those who participate in meals-only programs such as Meals on Wheels.²² In one US study, participants in congregate dining were found to have increased intake of 16 nutrients compared with nonparticipants.¹⁸

In BC, the Food Services Program at the Silver Harbour Seniors' Activity Centre (in North Vancouver) provides seniors with hot lunches Monday to Friday in a welcoming environment where seniors can socialize. The program runs a Go Bus service (operated three days a week) and coordinates volunteer drivers to support seniors to attend the food program (and other programs). Lunches are subsidized to make them more accessible to low-income seniors (costing the organization about \$11 per person; seniors pay \$8 of this cost).³⁸

Day programs that also offer meals

Many existing seniors' day programs provide nutritional support as just one component of their multifaceted programming.

In BC, the Campbell River & District Adult Care Society's daily program schedule includes mental aerobics, opportunities for socialization, music, special events, games and other activities, as well as coffee and toast in the morning and lunch in the afternoon.³⁹ Similarly, TAPS (Therapeutic Activation Program for Seniors) in North Burnaby provides seniors with the opportunity to engage in a variety of fun and social activities up to three times a week, such as light physical exercise, art, and brain games. Healthy lunches are also provided as part of the program.⁴⁰

Events and food festivals

The Corn Festival in Britannia, BC welcomes the non-Latin American community with traditional Latin American foods, music, dancers, food vendors and educational tables. The festival has had much success and has demonstrated that food can bring people together to build inclusive communities.²⁸ The Corn Festival is hosted by the Canada El Salvador Action Network Society and co-organized by the Grandview Woodland Food Connection (GWFC) and Britannia Community Center.²⁸

Food banks

Food banks are important for food security as they provide short-term/immediate food relief.⁴ Researchers have found that food banks can enhance their programs by increasing the provision of protein rich foods, fruit and vegetables, and milk products to meet the nutritional needs of their members.⁸ In Greater Vancouver, focus groups of food bank members indicated that allowing members to access the food bank more frequently and introducing a food bank delivery service to support those with mobility issues improved accessibility.⁸ Researchers also recommend that food banks work with producers/retailers to improve food donation quality (i.e., not expired, wasted) and permitting choice in selecting members' own items. This has been shown to improve the ability of food banks to better tailor provisions to members' preferences and needs and ensures that those with dietary restrictions receive appropriate foods.⁸

In BC, the Surrey Food Bank offers seniors aged 65 and up a dedicated distribution time to collect their food in a respectful and non-rushed environment and offer a suitable choice of nutritious foods to encourage the best possible nutrition. Seniors are welcomed to a community social hour which includes coffee, nutritious snacks, and company with their peers.⁴¹ The Muslim Food Bank, also in Surrey, is a food hamper that is catered to the specific dietary needs of low-income Muslims (i.e., religious dietary restrictions) and non-Muslims with similar dietary needs.⁴²

Food networks and coalitions

Food networks are coalitions of community members, community organizations, agencies, and businesses who work collaboratively to achieve food system goals and seek to increase overall community capacity at the neighbourhood scale.²⁸ Neighbourhood Food Networks can increase levels of food security among vulnerable and marginalized populations, increase the number of community food assets, utilize food as a tool for community development, promote inclusion and a sense of belonging, and build partnerships with other community coalitions, non-profits, governments, and businesses.²⁸

Examples include the Vancouver Neighbourhood Food Network (see: <http://vancouverfoodnetworks.com/wp-content/uploads/2015/01/NFN-Backgrounder.pdf>) and the Nanaimo Foodshare Society (see: <http://islandfoodhubs.ca/nanaimo-foodshare.html>).

Free nutritional supports (for low-income populations)

Free and low-cost meal options are also available for low-income seniors. For example, residents of the Downtown East Side have access to a variety of food services: Downtown East Side Kitchen Tables has developed a booklet listing such programs for each day of the week (see: <http://vancouverfoodnetworks.com/wp-content/uploads/2017/11/DTES-KT-Food-Map- June-2017.pdf>). The Vancouver Neighbourhood Food Networks also runs many healthy, free and low-cost meals in communities across Vancouver, including at Britannia Community Centre, Collingwood Neighbourhood House, and the Gordon Neighbourhood House.⁴³

Several religious institutions also offer free, drop-in meals for low-income individuals. For example, Holy Trinity Cathedral in New Westminster provides a free breakfast every Thursday and South Burnaby United Church provides a free/by donation lunch every Tuesday.⁴⁴

Gleaning

Gleaning is the process of collecting and using leftover crops from farms that would otherwise be wasted because they were not properly harvested or do not meet quality or aesthetic standards.⁴ There are many programs in which volunteers glean this fresh produce and redistribute it to those in need.⁴ Examples of such programs include the Nanaimo Community Gardens Society's Gleaning Program,⁴⁵ and the Fruit Tree Project in Victoria.⁴⁶

Good Food Boxes or food buying club

Good Food Boxes allow participants to pay for locally obtained fruits and vegetables at a reduced cost once or twice a month.⁶ These sorts of programs address food security by delivering locally produced nutritious food at a reduced cost to people who need it. They are considered to be helpful mechanisms for facilitating access to nutritious foods and are typically part of longer-term solutions.⁴ Evaluations of these programs in Canada found that participants consumed more nutritious foods, their nutrition related knowledge increased, and they were able to access healthy food.⁴ Nonetheless, the low frequency of access and small amounts delivered may be insufficient to affect eating habits,⁴ or address malnutrition and food insecurity in the community.

For example, the Fernwood Neighbourhood Resource Group's Good Food Box (not senior-specific) in Victoria, is a non-profit alternative fruit and vegetable distribution system that provides such boxes for \$10-20 (see: <https://thegoodfoodbox.ca/home/about>).

Grocery support

The Better at Home program, which exists in various communities across the province, is one of several programs that offer options for friendly visiting, transportation, and grocery shopping. Another option is for seniors to buy their groceries online and have them delivered. Seniors Come Share Society

lists some examples of such grocery shopping service (see: <https://www.comeshare.ca/grocery-shopping-services>). Autumn Services in Fraser Lake also offers a shuttle for grocery runs.⁴⁷

Home programs

Some programs provide at-home services related to food and nutrition, eliminating the need for transportation for seniors. For example, the Let's Do Lunch in Burnaby promotes healthy eating by having friendly volunteers visit seniors in their homes to share lunch, form friendships, and provide information on community supports and social events (see: <http://burnabymeals.ca/about/>).

The Garden Buddies at Home program, in Delta, pairs seniors who live at home and like to garden with volunteers who come to their homes to work on new or existing gardening projects together. The program provides bonding opportunities, i.e., socialization, and assistance with small gardening tasks, such as installing herbs in pots on a balcony.³⁴

Meals on Wheels

Home-delivery meal programs, or Meals on Wheels, have been evaluated to be effective and efficient in delivering nutrient-dense meals, and demonstrate better food intake and improved nutritional risk in their participants.¹⁷ A previously mentioned US study also found that Meals On Wheels participants increased intake of 12 nutrients compared with non-users.¹⁸

This type of program typically addresses tertiary level prevention, and is seen to support older adults already experiencing malnutrition.⁴⁸ It should be noted that seniors accessing home-delivery meal services are more likely to experience loneliness and have weak social relationships and therefore it has been suggested that socialization opportunities or companionship programs be incorporated into home-delivered meal programs.⁴⁹ The 'Outings to Your Taste' program in Montreal incorporated twice a month opportunities (in 2000) for Meals on Wheels clients to visit local restaurants with other clients and peer volunteers and saw positive results.⁴⁹

Japanese-Style Meals on Wheels by Tonari Gumi serves home-bound seniors in Vancouver, Burnaby, and Richmond and is partnered with local Japanese food distributors (i.e., "Hi Genki Japanese restaurant" in Burnaby and "Izumiya Japanese Marketplace" in Richmond).⁵⁰

Multifaceted food programs that integrate two or more types of activities

Some food programs address multiple factors related to food insecurity, i.e., access, education, cooked meals, transportation (i.e., delivery), and socialization. These types of initiatives are consistent with research that recommends programs include both education on healthy eating and provision of nourishment through food-based programs.¹⁷

In BC, the Seniors Come Share Society's Share and Care program provides socializing opportunities for seniors to help fill the void of isolation and loneliness, offers education activities (e.g., classes, health and wellness activities), provides food and refreshments, and provides access a Food Bank where a staff member and volunteers assist them.⁵¹ The Granisle Healthy Lunches Program (from 2014 to 2016) provided hot meals in an environment with opportunities for socialization, meal delivery to seniors who were not able to attend congregate meals, access to information on health and nutrition, and talks on health-related topics by local health nurses.⁵²

Umbrella organizations that provide food to community food programs

Some organizations contribute to community food security by providing non-profit community food programs with low-cost, often rescued food. For example, the Greater Vancouver Food Bank (GVFB) collects and distributes food and products to registered GVFB clients, Community Agency Partners (CAPs), and other food banks across Greater Vancouver, including the city of Vancouver, New Westminister, the

North Shore, and Burnaby. The GVFB supports approximately 80 Community Agency Partners (CAPs) by providing food on a weekly basis for their programs, kitchen supplies, workshops, and training.⁵³

Workshops and nutrition education

There a variety of ways that nutrition education for seniors can be added into community food programs; workshops are one common approach. For example, the FoodFit program through Grandview Woodland Food Connection, provides educational opportunities through hands-on cooking sessions and food-based activities with take-home recipes, easy-to-understand nutrition information, group exercise, shared meals, self-directed individual, and group goal setting. Program participants often include a number of newcomers and older adults.⁵⁴

Workshops can also be run by seniors. The Choi Project's 'Cooking with Grandma' workshop in in Vancouver is led by a Chinese senior (with support from her granddaughter) who teaches the class how to prepare traditional Chinese dishes.⁵⁵

APPENDIX B: Multilingual and multicultural nutritional resources and cultural competency toolkits

- The Government of B.C. has translated their Healthy Eating for Seniors Handbook into Chinese, French and Punjabi: <https://www2.gov.bc.ca/gov/content/family-social-supports/seniors/health-safety/active-aging/healthy-eating/healthy-eating-for-seniors-handbook>
- The Dieticians of Canada have developed “Healthy Eating While Spending Less” guidelines adapted for different cultural groups, including South Asian, Latin Americans, Chinese, and African and Caribbean: <https://bc.healthyagingcore.ca/resources/tips-healthy-eating-spending-less-adapted-versions-chinese-south-asian-latin-americans>
- HealthLinkBC has guidelines for healthy eating and healthy aging for adults, available in Chinese, Farsi, French, Korean, Punjabi, Spanish and Vietnamese: <https://www.healthlinkbc.ca/healthlinkbc-files/healthy-eating-adults>
- Canada’s Food Guide has been translated into four Indigenous languages: Inuktitut, Ojibwe, Plains Cree, and Woods Cree: <https://www.canada.ca/en/health-canada/services/food-nutrition/reports-publications/eating-well-canada-food-guide-first-nations-inuit-metis.html>
- The Community Tool Box by the University of Kansas has developed guidelines for adapting community interventions for different cultures and communities: <https://ctb.ku.edu/en/table-of-contents/analyze/choose-and-adapt-community-interventions/cultural-adaptation/main>
- The Community-based Seniors Services (CBSS) Intercultural Provincial Working Group, hosted by United Way Healthy Aging recently developed a toolkit and checklist for CBSS agencies looking to enhance the cultural competency and relevancy of their programs: <https://bc.healthyagingcore.ca/resources/toolkit-enhancing-cultural-competency-community-organizations-attached-checklist>
- Common dietary restrictions of all major religious groups: <https://www.chapman.edu/campus-life/fish-interfaith-center/files/religious-dietary-restrictions.pdf>.
- The First Nations Health Authority has developed Healthy Eating Guidelines for Indigenous individuals to make healthier food choices in their daily life or during group gatherings: https://www.fnha.ca/Documents/Healthy_Food_Guidelines_for_First_Nations_Communities.pdf

APPENDIX C: The effect of COVID-19 on food security for seniors in British Columbia

The COVID-19 pandemic is threatening food security and nutrition for millions of people around the world,⁵⁶ and has affected the entire global food system.⁵⁷ As the economy slows down due COVID-19, income reductions, loss of employment, and availability of food in local markets has negatively affected access to food worldwide.⁵⁷ There is limited research on the effects that COVID-19 will have on the food security of seniors, however, experts have stated that specific segments of the population such as seniors are most vulnerable and most affected by direct and indirect impacts to food security due to COVID-19.⁵⁸ There are expert recommendations for governments to prioritize solutions for these groups.⁵⁸

Within British Columbia and Canada

Canadian researchers suggest that COVID-19 has the potential to increase the proportion of households identified as moderately or severely food insecure.⁵⁹ The loss of household income and employment associated with COVID-19 is considered one key factor that may contribute to increase food insecurity in Canada.⁵⁹ This may not directly affect retired seniors, however, seniors who rely on family members for financial support may experience these effects.

The potential for food shortages and price increases, as a result of COVID-19, are also factors which may lead to food security for Canadians.⁵⁹ Challenges with international exchange, farm financial stability, and transportation are three critical factors that would contribute to these changes.⁵⁹ Rural and remote areas, and those with existing food insecurity, are particularly susceptible to transportation challenges associated with COVID-19.⁵⁹ Additionally, public perception of food shortages affects consumer habits which can lead to increased and unnecessary stocking up and leave grocery store shelves empty.⁵⁹ Canadian researchers have argued that the food supply chain has adjusted relatively well to this unique challenging situation and expect that food availability will be stable over the next 6 months.⁵⁹ Nonetheless, communities and governments should be wary of the potential challenges that have yet to come.

It is also important to remember that food insecurity in British Columbia was recognized by the Government of BC as a key public health issue in the province prior to the current pandemic.² For seniors specifically, about 12.6% who rely on public pensions experience food insecurity.² This is in comparison to about 11.8% of the general population who experience food insecurity.² Due to COVID-19, existing food security programs, such as Care B.C., which provides Meals on Wheels services, are short on volunteers and are concerned their volunteers are at risk of burn out due to the increased demands and precautions.⁶⁰

Social isolation due to COVID-19

Many Canadian seniors are also experiencing social isolation as a result of the current pandemic.⁶¹ This is concerning for many reasons including seniors' nourishment. As discussed, research has shown that seniors are more likely to eat when they are in the presence of others.²¹ As COVID-19 has led to increased social isolation due to social distancing, this will likely have an impact on the food intake of seniors living alone.²¹ Seniors that participate in programs that provide meals with socialization appear to be healthier, at less nutritional risk.²² There are also long-term benefits of programs that offer socialization opportunities, such as social capital and community capacity building,⁴ which may decrease due to COVID-19 social distancing. Congregate meal sites, exercise and social activities, in-person health/business interactions, and volunteer and employment commitments are among many valuable engagement opportunities that are currently suspended.⁶²

What is being done?

As part of the response plan for COVID-19, the Government of BC provided the United Way of Lower Mainland with \$50 million to support work being done for seniors at community agencies throughout the province.⁶³ This has funded the expansion of the bc211 and Safe Seniors, Strong Communities programs,⁶³ which match seniors with Better at Home COVID response agencies that provide free services such as grocery shopping, meal prep, and friendly check-in (as well as prescription pick-up) during the COVID-19 crisis.⁶⁴ Seniors and service providers should be aware of these supports as they can greatly assist with current food security challenges (see <https://www.bc211.ca/>).

The Province of BC has also provided \$3-million of emergency grants from the Community Gaming Grants program to Food Banks British Columbia.⁶⁵ Food Banks British Columbia has distributed the money among food banks provincewide to support their immediate needs to buy and distribute food, pay employees, and cover other costs essential to the delivery of their food programs.^{65,66}

APPENDIX D: Food maps

- Burnaby. <http://burnabymeals.ca/about/>. - https://www.google.com/maps/d/u/0/viewer?mid=1KPaq5j5iUID_9IEESpmchzq0QiE&ll=49.210128444570515%2C-122.92807532624511&z=12
- Maple Ridge & Pitt Meadows https://www.fraserhealth.ca/-/media/Project/FraserHealth/FraserHealth/Health-Topics/Free-and-low-cost-food-directory/LowCostDirectory_MapleRidge.pdf?la=en&hash=A46FBF0E5138E41FDE7BE6AAD05FA24EF5784FBC
- North Shore food map <https://www.cnv.org/your-government/living-city/local-food/north-shore-food-asset-map>
- Sunshine Coast Food map <https://www.google.com/maps/d/u/0/viewer?mid=1j7-FsPJMJDcNmowqKe6aE6MtZ4o&ll=49.572354519914505%2C-123.75281304999999&z=10>
- Surrey Food Map <http://surreywhiterockfoodactioncoalition.ca/resources/food-resources-surrey/>
- Squamish-Lillooet Food map <https://www.google.com/maps/d/viewer?mid=11KH-gx0qQmTLI9DkHZTGphxA1x8&ll=50.22145441459085%2C-122.52277375&z=8>
- Vancouver Food map <https://www.google.com/maps/d/viewer?mid=1XEmhBp-1P0xxH7ZPFMc76sBFb2U&ll=49.252608657316635%2C-123.09860997163088&z=12>

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