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ENVISIONING A PHYSICAL FOOD HUB AT UBCO

**REPORT BY: SARAH CLEMENT, UBC SUSTAINABILITY SCHOLAR 2020
PREPARED FOR: CASEY HAMILTON RD, MSC, CAMPUS HEALTH SPECIALIST,
CAMPUS HEALTH UBC OKANAGAN**



Acknowledgements

The UBC Okanagan campus is situated on the unceded territory of the Syilx Okanagan Nation.

“Consisting of a multitude of natural communities, Indigenous food systems include all of the: land, soil, water, air and culturally important plant, fungi and animal species that have sustained Indigenous peoples over thousands of years of participating in the natural world. All parts of Indigenous food systems are inseparable and ideally function in healthy interdependent relationships to transfer energy through Indigenous ecosystems and economies. In addition, Indigenous food systems also support both directly and indirectly, the transfer of energy through the present day agriculture based economy that has been developed and industrialized by settlers through the process of colonization.”

(BC Food Systems Network Working Group on Indigenous Food Sovereignty, 2008, p. 5)

I acknowledge my privilege as a white settler and guest on the unceded traditional territory of the Syilx Okanagan Nation. Our food systems cannot be considered just until Indigenous Food Sovereignty is prioritized, granted, and truthfully reconciled. Our hope is that this project can meaningfully contribute to the creation of equitable, decolonized, and anti-oppressive food systems, rather than participate in the ongoing institutionalization of land dispossession and colonial food systems.

I would like to thank my mentor and supervisor, Casey Hamilton, for providing me with guidance, support, insight, and friendship throughout the duration of this project. I would also like to thank all of the representatives from food security initiatives, programs, and projects from across Canada who took the time to speak with me regarding their operations, visions, and ongoing work. You have inspired me and helped me see the vastness of opportunity we have to create just food systems. I would also like to thank all of the folks at UBC Okanagan, students, staff, and faculty alike, who participated in our consultation process, offered feedback and advice, and provided staunch support throughout this process. Lastly, I would like to thank every individual, community, and organization working to create equitable, just, inclusive, and accessible food systems. Your ongoing work is invaluable and our vision would absolutely not be possible without it.

This report was produced as part of the UBC Sustainability Scholars Program, a partnership between the University of British Columbia and various local governments and organisations in support of providing graduate students with opportunities to do applied research on projects that advance sustainability across the region.

This project was conducted under the mentorship of UBC Okanagan Campus Health staff. The opinions and recommendations in this report and any errors are those of the author and do not necessarily reflect the views of Campus Health or the University of British Columbia.

This report is a collaboration between Campus Health and the UBC Sustainability Scholars Program. It has been compiled by Sarah Clement (MSW Candidate; Sustainability Scholar) and Casey Hamilton (RD, MSc; Campus Health Specialist). Sarah has many years of experience working in food security and food systems work, first as an organic farmer and then as a community programmer and advocate. Casey has worked in community food security and food policy for many years. Casey is a Registered Dietitian in addition to executive director of the Okanagan Fruit Tree Project Society and co-founder of the Central Okanagan Food Policy Council.

We arrive at this project with multifaceted experiences with food and food systems. Our love of food and our passion for creating healthy, equitable, sustainable, inclusive, decolonized food systems that benefit people and the environment underpins the whole of this project. We are thrilled by the opportunity to envision a physical food hub at UBCO and to be moving forward in addressing the growing rates of student food insecurity at our campus.

Sarah Clement & Casey Hamilton

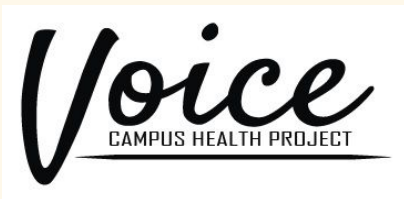


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Executive Summary

This project, *Envisioning a Physical Food Hub*, took place May to August, 2020. Sarah Clement's position was funded by UBC Wellbeing and UBC Okanagan Campus Health, and Casey Hamilton's work on this project was supported by the UBCO Office of the Provost. This project came about after the Campus Health VOICE 5 Research Project revealed strong support for the development of a physical food hub on campus. This project has received additional funding from the UBC Sustainability Scholars Program, and will be hiring another scholar in Fall 2020 in order to investigate and initiate possible community partnerships for the physical food hub on campus.

The project entailed: a literature review, an environmental scan, a community consultation process with students and key stakeholders at UBCO, documentation of the entire process, and the creation of a list of recommendations for moving this project forward into the next phase. Throughout the process, UBC Strategic Planning was prioritized, with specific focus on the Inclusion Action Plan, the Wellbeing Strategic Framework, the Indigenous Strategic Plan, and the Climate Action Plan. The research areas in the literature review, and the questions we posed in the environmental scan and UBCO consultation process were directly influenced and informed by these four strategic plans. The literature review explored a number of topics: the food hub model, food security, student food security, community health and well-being, healthy built environment, placemaking, climate change and sustainability with regards to food systems and food security, and COVID-19 and food security. In the environmental scan, we examined 25 food security initiatives across Canada; 12 of which we purely researched online, and 13 of which we engaged over Zoom, Google Hangouts, or phone-call for hour-long conversations. As part of the environmental scan, we spoke with representatives from 8 university food security and food systems initiatives. The following topics were discussed in the environmental scan: funding, student union involvement, internal and external partnerships, programs and services, physical space, employment, inclusion, equity, accessibility, sustainability, advocacy, policy, student activism, and COVID-19. The UBCO community consultation process consisted of 23 consultations with 109 key stakeholders and students. Each consultation involved a presentation of our research and the physical food hub concept, and an in-depth discussion based on questions regarding the following: funding, food procurement, governance structure, physical space, internal and external partnerships, programs and services, student and faculty involvement, inclusion, equity, accessibility, sustainability, advocacy, and decolonization. We summarized our results according to these categories. The consultation process revealed that the three central areas of focus for the development of a physical food hub on campus are: governance structure, funding, and physical space.

In order to move this project forward, we recommend the following:

- 1) The formation of a multi-stakeholder committee for the planning and development of a physical food hub at UBCO. The committee is to include students, staff, and faculty. Based on our consultations, we advise representation from the following: UBCSUO, Student Experience Office, International Programs & Services, Aboriginal Programs & Services, Institute of Community Engaged Research, Nutrition Education Centre, Campus Health, the Food Strategy Committee.
- 2) We suggest that the first priority of this committee is to determine the high-level governance structure of the physical food hub. Multiple consultation sessions have revealed that the Physical Food Hub may be best housed within the Associate Vice President Students portfolio with appropriate staffing. The consultation process also revealed that staffing is essential. Physical space and funding are the next priorities after governance.

3) The university administration and planning departments must prioritize the physical food hub in development and construction on campus; the construction of new buildings on campus and/or renovations of existing buildings. The university administration must also prioritize allocating outdoor space for the outdoor component of the food hub.

Introduction

Food Security is a growing priority area at UBCO; the 2019 Undergraduate Experience Survey revealed that 42.3% of students self-reported experiencing low to very low household food security, indicating that they are either not getting enough to eat, or that the stress of worrying that they won't get enough to eat is severely impacting them. This shockingly high statistic is the reason why we are so incredibly passionate about supporting student food security. Students must be nourished in order to thrive in a postsecondary education setting. UBCO Campus Health and the UBC Sustainability Scholars Program collaborated on this project, *Envisioning a Physical Food Hub*, in order to investigate best practice in supporting student food security on our campus. This project substantiates and supports the development of a physical food hub at UBCO in order to support student food security. This report details our methodology, presents our results, and proposes recommendations for next steps. This report contains: a literature review, environmental scan results, UBCO community consultation results, and recommendations.

Background

Food security

As rates of student household food insecurity on postsecondary campuses mount across North America, the imperative to promote food and financial security continues to become increasingly vital for the health and wellbeing of student populations. 42.3% of undergraduate students at the University of British Columbia Okanagan Campus reported low to very low household food security (Hamilton, Taylor, Huisken, & Bottorff, 2020; Wellbeing Strategic Framework, 2019), a rate similar to postsecondary institutions across Canada (Silverthorn, 2016). Student household food insecurity disproportionately affects “Aboriginal and racialized peoples, off campus dwellers, and students that primarily fund their education through government student financial assistance programs” (Silverthorn, 2016, p. 1).

Food security research has evolved over the last decade to show that food insecurity is tightly linked to financial insecurity and household income (Che & Che, 2001). Food banks and other emergency food services are now recognized as a last resort, with emphasis currently being placed on other types of community responses, policy reforms, and social supports (Tarasuk et al., 2019). Research shows only around 20% of food insecure households access food banks (Che & Che, 2001). Research supports the essential need for social policies that improve the stability of household income as a method of reducing food insecurity in Canada (Tarasuk et al., 2019). Although emergency food services are important for the temporary relief of acute hunger, these services do not address systemic root causes of household food insecurity, nor do they recognize the complexity of food security. Scharf et al. (2010) state:

[T]he problem is much broader than hunger and touches on social issues and related policies in the areas of poverty, health, social cohesion, and the food economy. We propose an alternative view: to see food as a public good, one that is key to human health and an equitable society — and as such, one in which society as a whole has an interest. (p.12)

Research typically discusses three unique yet interrelated components of food security: household food insecurity, capacity, and food systems. Household food insecurity occurs at the individual level; it is the inability for households to meet nutritional needs, primarily as a result of low income (Dietitians of Canada & Power, 2011). Capacity is represented by knowledge and competence related to food, nutrition, and the broader food system (Tarasuk et al., 2014). Food systems includes policies, processes and systems that impact food production, distribution, consumption, and disposal (Burlingame & Dernini, 2010). Each component of food security is addressed through unique policy, programming, and service approaches. A physical food hub at UBCO will address all three components of food security through the provision of emergency food services, educational programming and services, and research, advocacy, and policy. The physical food hub at UBCO will be a locale for the temporary alleviation of hunger as well as long-term improvements in social determinants of health¹ for our students and our community.

A Food Hub on campus is a thriving, bright, and welcoming community space where the campus community can access a wide range of programs, services, and opportunities that increase health and wellbeing by providing healthy affordable food, social connection, food skills, within a sustainable and equitable food system. A food hub is an inviting space in

¹ The Canadian Public Health Association defines social determinants of health as “the social and economic factors that influence people’s lives” for example: income, education, unemployment and job security, housing, Aboriginal Status, gender, race, and disability (Canadian Public Health Association).

which students feel respected and dignified in accessing food security services. A food hub within a university setting prioritizes student engagement in research, advocacy, and community building, empowering students through leadership opportunities related to our campus food system. A campus food hub at UBCO is inclusive of the entire campus community including staff and faculty in addition to undergraduate, graduate, and mature students. The Physical Food Hub at UBCO will be a leading example for postsecondary institutions across North America; this is an unprecedented opportunity to develop one of the first campus spaces in North America to offer wraparound services focused on food security and student wellness.

We conducted a literature review, an environmental scan, and 23 consultations with students and key stakeholders at UBCO. Research involved a literature review of the following topics: the food hub model, food security, student food security, community health and well-being, healthy built environment, placemaking, climate change and sustainability with regards to food systems and food security, and COVID-19 and food security. The environmental scan consisted of 13 interviews over Zoom, Google Hangout, and phone-call with community and postsecondary food security initiatives. Please see Appendix B for a complete listing. The environmental scan also included an online component in which 12 additional food security initiatives were researched. The UBCO consultation process, held over Zoom, included 23 sessions with 109 students, staff, and faculty. Please see Appendix C for a complete listing.

The research, information, and recommendations in this report have been compiled from many sources and draw on a variety of concepts in order to innovate the proposal for a physical food hub at a postsecondary institution. Despite the absence of existing physical food hubs at postsecondary institutions across Canada, there are numerous examples of campus food security programs and services that are yet to be centralized or organized in a physical hub space. However, food hubs, sometimes referred to as food centres, exist within the community. The recommendations found in this report integrate aspects of campus food security programs and services with the model of the community food hub. This report is also informed by our literature review, environmental scan, consultations with students and key stakeholders at UBCO, and previous food security research conducted at UBCO by the Campus Health VOICE 5 Research Project.

Context: University of British Columbia

The development of a physical Food Hub on campus reflects UBC's commitment to the UBC Strategic Plan, the Okanagan Charter, the UBC Wellbeing Strategic Framework, the Inclusion Action Plan, the Indigenous Strategic Plan, and the UBC 20 Year Sustainability Strategy. Please see Appendix A for a complete listing of Strategic Planning priority areas addressed in this project. The creation of a physical Food Hub at UBCO is an opportunity to move forward with these UBC commitments. As set out in the Okanagan Charter (2015): "...higher education has a unique opportunity and responsibility to provide transformative education, engage the student voice, develop new knowledge and understanding, lead by example and advocate to decision-makers for the benefit of society." The creation of a physical food hub at the Okanagan campus will lead the way for other postsecondary institutions in launching innovative and impactful programs and services targeting unprecedented rates of student household food insecurity.

This project supports UBC wellbeing priorities: food and nutrition, social connection, mental health and resilience, built and natural environments, physical activity and sedentary behaviour, and collaborative leadership. Food security was identified as a key priority within the food and nutrition portfolio and has resulted in the establishment of the Food Security Initiative (FSI). The FSI is an interdisciplinary and multi-stakeholder platform for students, academics, and other practitioners to collaborate in promoting food security solutions through inclusive student and faculty-led research opportunities, and cross-campus regional and national collaboration. The FSI aims to create scalable solutions to further policy and advocacy work as part of an effort to transform food and social systems. A physical food hub is an example of one such solution. Food hubs offer more than just emergency food relief; they provide an array of opportunities for holistic health promotion and general wellbeing. The physical food hub at UBCO will be a space for individual and communal health thereby supporting the UBC strategic goals, commitments, and principles identified in Appendix A.

Context: VOICE research

Campus Health has facilitated the VOICE research project since 2005. VOICE is a Community-Based Participatory Action Research (CB-PAR) project that engages students, staff, faculty, and others in the UBCO community to identify, understand, and address issues at UBCO which impact community wellbeing via research, education, and action. The CB-PAR methodology is further supported by an emphasis on health promotion strategies and youth-adult partnerships.

Food, nutrition, and food security are recurring themes raised by campus community members. Food was the number one priority health area identified by the campus community in VOICE 3 (2012-2015). Over 35% of the campus community participated in this project; those who identified food as their key priority area shared that the food on campus is expensive, overall unhealthy, low variety, that healthy food is more expensive than unhealthy food, and that those with a special diet (vegan, gluten free, allergy, etc) are not well supported on campus. Furthermore, respondents shared that the UBCO campus food system is not supportive of food security. They expressed the desire for farmers markets, edible landscaping, the ability to grow food on campus, a more sustainable food system on campus, and the need for more education and support to establish or improve food and nutrition skills (Hamilton, 2012). In VOICE 4 (2016-2018), 42.3% of respondents identified worrying sometimes or often about running out of money before they can buy more food (Hamilton, Taylor, Huisken, & Bottorff, 2020). A logistic regression analysis indicated that students living on campus, females, those with a disability, individuals self-reporting as belonging to a visible minority, and international students were more likely to experience food insecurity than comparator groups. When adjusted for gender, years on campus, and living situation, students who reported experiencing two or more forms of marginalization were 2.52 times more likely to be food insecure compared to students who do not report any form of marginalization (Hamilton, Taylor, Huisken, & Bottorff, 2020).

VOICE 5 (2019-2021): “Food Security at UBCO: What’s Your Recipe?” is Campus Health’s most recent research project (Hamilton, Amaral, Micallef, & Rutledge, 2020). The focus of this project is to understand the lived experience of students identifying as household food insecure, understand how the campus food system hinders or support food security, and to obtain suggestions about how UBCO can support student food security through programs, services, spaces, and policies. This project engaged 54 students through table talk discussions. Students came from diverse backgrounds including students who identify as LGBTTQIA+, Aboriginal, International, and disabled. Students shared their experiences with household food insecurity, the strategies they have used to manage it, and the impacts that household food insecurity has on their physical, mental, social, academic, and economic health. Students identified a lack of food skills as a major barrier to their overall food security, with many students living away from home for the first time, entering a life-stage that demands knowledge of various food skills that others often take for granted. Student participants acknowledged that although they are already at higher risk of household food insecurity due to low income levels typical for post-secondary students, lacking food skills significantly exacerbated their experience of household food insecurity. The conditions of being a student added another layer of complexity to their experiences of household food insecurity. Participants shared their attempts to manage an overwhelming number of priorities such as school workload, volunteer positions, employment, and extracurriculars. Students shared that they experience tremendous levels of stress and that time is a significant factor impacting food security. They explained that time pressure results in making many compromises regarding food; for example, purchasing expensive food on campus due to lack of time for grocery shopping and preparing meals, purchasing simple-to-make but low quality food like Ichiban, skipping meals altogether, or relying on coffee as an appetite suppressant. Students also noted that the campus environment impacts their food security. They discussed the expensive nature of food on campus, which has overall improved in quality but lowered in value. Students shared: the lack of food late at night is a major barrier, food on campus feels transactional, lacking in culture and community, campus lacks supportive built environments with little infrastructure to support student food skills,

community-building, and relationship development among students. Students expressed that this type of unsupportive and expensive food environment results in the impression that they are not cared for, and that they are “just another number to UBCO” (Hamilton, Amaral, Micallef, & Rutledge, 2020).

Context: COVID-19 and food security

Levels of food insecurity are rising due to the current context of COVID-19. Leading Canadian food security experts, Valerie Tarasuk and Lynn McIntyre (2020) state:

[T]he number of people affected by food insecurity and the levels of deprivation they face are going to get a whole lot worse. And the health implications of being food-insecure will become even more dire. So, mounting an effective response now is critical. (para. 4)

Building resilient food systems, encouraging food security, and planning for growing levels of food insecurity is critical. Food Secure Canada (2020) notes: “[T]his crisis is an opportunity to strengthen our food system overall, revitalize rural economies, improve the health of Canadians, and build resilience - to climate change and other system shocks - now and into the future.” UBCO has the opportunity to participate in the necessary revitalization and improvement of food systems through the development of a campus food hub. The 2017/2018 Canadian Community Health Survey (CCHS) found that 4.4. million people were living in food-insecure households. This is the highest number yet reported in the data (Tarasuk & Mitchell, 2020). Elaine Power, food security expert at Queen's University notes: “Suddenly, hundreds of thousands more Canadians are at risk of going hungry” (Harris, 2020). As numbers of food insecure individuals and households grow, developing a sustainable plan to address this issue is essential; A physical food hub at UBCO will be able to address and support these growing numbers.

Context: Climate Change

The linkages between climate change, food security, and human health must be addressed. Climate change will affect all dimensions of food security including availability, accessibility, utilization and food systems stability (FAO, 2008). Compounding impacts include effects on: “human health, livelihood assets, food production and distribution channels, as well as changing purchasing power and market flows” (FAO, 2008, p. iii). Consequences further include increased undernourishment as well as obesity and ill health (Mbow et al., 2019). Climate change contributes to the increasing cost of food, pushing already vulnerable populations further into the depths of food insecurity (FAO, 2008). This increased vulnerability applies to low-income urban dwellers in addition to producers (FAO, 2008).

Developing a physical food hub at UBCO is an opportunity to commit to the UBC Sustainability Strategy principles and participate in the UBC Climate Action Plan substantiated by the declaration of a climate emergency by our university. According to the Intergovernmental Panel on Climate Change (IPCC), institutional measures such as policy and law reform are needed at global, regional, national, and local levels in order to increase resilience (Mbow et al., 2019). Adaptation to climate change involves a foundational shift in the ways we approach policy and decision-making insofar as decisions should be based on the best knowledge available, a longer-term view, with maladaptive processes and policies avoided (Crawford et al., 2012). The IPCC indicates that “education is a powerful strategy to accelerate changes in the way we produce and consume food. Education refers to early learning and lifelong acquisition of skills for higher awareness and actions for solving food system challenges” (Mbow et al., 2019). The BC Agriculture & Food Climate Action Initiative identifies six principles that support adaptation to climate change: integration, flexibility, collaboration, transparency, proactive and future oriented, and resiliency (Crawford et al., 2019). The development of a physical food hub at UBCO presents an opportunity for holistic engagement in policy action, research, and education related to climate change resilience and adaptation as it relates to food security.

There are numerous recommendations for climate change resilience and adaptation provided by the UNFAO, the IPCC, and the Canadian federal government as well as the provincial government of British Columbia. Proposals include ways to mitigate the effects of climate change as well as have a net positive impact on the environment. The BC Agriculture & Food Climate Action Initiative recommends buying local agricultural products, supporting post-secondary training and education in agriculture, provision of incentives for agricultural innovation, and ongoing learning at all levels of the system including government as well as citizens (Crawford et al., 2012). Similarly, the FAO (2008) recommends a change in consumption patterns such as relying more on local produce with a lower carbon footprint, reducing consumption of grain-fed livestock, promoting urban and school gardens, utilizing energy efficient food preparation practices, and teaching nutritious eating habits. The IPCC also recommends a shift in consumption patterns with a reduction in food loss and waste, a reduction in meat consumption, attending farmer’s markets and buying from local producers, and reducing over-consumption (Mbow, et al., 2019). In addition, the IPCC recommends:

Institutions may develop new capacities to empower value chain actors, take climate change into account as they develop quality products, promote adoption of improved diet for healthier lifestyles, aid the improvement of livelihoods of communities, and further socioeconomic development. (Sehmi et al., 2016, as cited in Mbow, et al., 2019, p. 473)

As well, the International Commission on the Future of Food and Agriculture (2008) recommends policy action such as ending subsidies for fossil-fuel based food economies. A physical food hub at UBCO could prioritize these recommendations and proposals in order to take action in promoting climate change resilience and sustainability.

UBC's Declaration on the Climate Emergency identifies:

- 1) The need for drastic emissions reductions and a decisive shift away from fossil fuels toward alternative energy sources*
- 2) That UBC as a public institution is a recognized leader in taking action to combat climate change and has a mandate to effect change beyond our institutional boundaries, with a fundamental responsibility, as outlined by our purpose statement, to advance a sustainable and just society across British Columbia, Canada and the world.*
- 3) That addressing the climate crisis is critical to the University's key functions of research, learning and engagement as UBC strives to prepare students for their futures and conduct leading research on pressing societal issues (Declaration on the Climate Emergency, 2019).*

There are many resilient and adaptive approaches to climate change mitigation. A physical food hub at UBCO will provide the opportunity to engage in strategies for mitigating climate change and promoting environmental sustainability, stewardship, and leadership through purchasing decisions, food procurement methods, policy action, and community and academic collaboration. A development plan that prioritizes alternative energy sources, research on climate change and food systems, and sustainable food systems will advance UBCO towards its expressed goal of combatting climate change.

Literature Review

We conducted a literature review at the outset of this research project in order to determine what type of supports exist for household food insecurity. Not only did we research community food security and existing food hub models, but we also reviewed literature on healthy physical spaces and built environment in order to recommend best practice regarding building a physical space to support health and wellbeing. The following sections record the most relevant information retrieved from our literature review.

The Food Hub Model & Community Wellbeing

A physical food hub is a multi-pronged approach to promoting food security and overall wellbeing. A physical food hub on campus will offer a variety of programs and services that, when operated concurrently, effectively work to mitigate immediate and long-term effects of food insecurity. Food hubs typically offer: emergency food relief; capacity and skill building programs; food literacy training; financial literacy training and emergency financial aid; advocacy and policy change initiatives; and, a sense of community and belonging. A food hub will also encourage education regarding the political and social systems in which students study, engage, and thrive.

The Stop is the leading example of the food hub model. Regarding The Stop, Scharf et al. (2010) write,

There is a strong case to be made that a place-based food organization — underpinned by a holistic approach to food security and possessing an adequate physical infrastructure [...] — can have a powerful impact on the health and well-being of not only individuals but also larger communities. (p. 7)

The Stop is part of a larger network of Community Food Centres across the country that promote food security through this model of community-focused engagement and capacity building. It is no coincidence that the most effective models for promoting health, wellbeing, and food security all revolve around community engagement and development.

Community is a key ingredient to promoting food security and general wellbeing. This is a well documented phenomena: “[R]esearch has repeatedly shown that people who feel a stronger sense of belonging to their local community tend to live healthier lives [...] many studies indicate that a sense of belonging to one’s community has a strong impact on health behavior change” (Project for Public Spaces, 2016, p. 14). An evaluation of data collected through the 2007/2008 Canadian Community Health Survey notes a strong correlation between community-belonging and health-behaviour change, suggesting that community-belonging could be a key factor in health promotion (Hystad & Carpiano, 2012). A UK study assessing the linkages between well-being and public space reported that participants identified social interaction in public space as central to ameliorating well-being and health in addition to reducing stress (Cattell et al., 2008). A physical food hub at UBCO will leverage the power of community and social interaction in order to promote student wellness and food security on campus. A physical food hub at UBCO will also draw influence from the successful Community Food Centre model used by The Stop, applying many similar principles and adapting them for success for a postsecondary setting.

Healthy Built Environment

There is a great body of research indicating that the built environment influences the health and wellbeing of those individuals and communities that exist within it (Project for Public Spaces, 2016; Steemers, 2015; UK Green Building Council, 2016; Cloutier et al., 2019). This is also recognized in the UBC Strategic Plan (2018): “Places play a profound role in shaping the experience of the people who work and live in them; people, in turn, are powerful influences on their places.” In developing a physical food hub, UBCO has an opportunity to construct a healthy built environment that promotes health and wellbeing for the student body and broader university community, while meeting the goals set out in UBC’s Strategic Plan.

Design of place can encourage positive social interactions (UK Green Building Council, 2016) as well as a sense of overall well-being (Frumkin, 2003). Place and environment influence individuals on a personal level with “...a person’s sense of worth and place [...] contingent upon the quality of home and land they dwell on.” (Cloutier et al., 2019).

Architecture can elevate wellbeing and health:

One of the opportunities of architecture is that, through the design of form, space and materiality, it can order our relationships with each other and our environment by creating interactive settings for life. It can do this in such a way as to provide opportunities to improve our sense of well-being, enrich our lives, make our lives healthier and more pleasurable (Steemers, 2015).

A food hub at UBCO presents the opportunity to design a physical space that facilitates wellbeing, health, and pleasure for students and the broader university community. In a study on the relationship of community wellbeing and infrastructure, Cloutier et al. (2019) suggest “...that universities, businesses, developers and associated individuals can support local communities in promoting positive experiences in homes and landscapes” (p. 286). Regarding food hubs, the importance of physical space at The Stop cannot be understated: “There is a strong place-based element to The Stop’s work. Having a physical space that thousands of people can walk into, in which they can sit down for a meal, volunteer, cook, make a telephone call, or connect to community resources is essential” (Levkoe & Wakefield, 2011, p.28-29). This type of environment, one of lively, healthy activity, is what we envision at UBCO. As a leading university in Canada, UBCO has a responsibility to construct an optimal sustainable and healthy environment in which to promote health, community wellbeing, and student food security.

Placemaking

Great detail and attention must be paid to the physical construction of the built environment; however, attention must also be paid to the relationships and community that exist and thrive within the physical food hub. The theory and practice of placemaking inform the concept of a physical food hub at UBCO.

Placemaking informs the creation of vibrant, community-oriented spaces. The concept and practice of placemaking holds community participation at its core, strengthening the connection between people and place through “collaborative process[es] by which we can shape our public realm in order to maximize shared value” (Project for Public Spaces, 2007). Placemaking takes into account physical, cultural, and social aspects of place (Project for Public Spaces, 2007). A physical space consists of more than just the built environment:

It is also a product of risks and opportunities, the nature of the social organization attached to the locale, its political, social, and economic relationships with other places, the psychosocial characteristics of the individuals occupying the space, and the local cultural milieu. (Fitzpatrick & LaGory, 2000 in Frumkin, 2003)

Placemaking is a method for creating spaces that facilitate meaningful experiences for people (Wykoff, 2014 in Hes et al., 2019).

There are numerous benefits associated with placemaking, including social, ecological, and economic advantages (Hes et al., 2019). Benefits of placemaking include: “improved social connectedness and sense of belonging, resulting in improved health [...] and general well-being... [and] job creation or skill development [and] reduced public expenditure” (Hes et al., 2019). We employ the concept and practice of placemaking because it focuses on the creation of community, activating space for meaningful experience, and successful communication. These are all key guiding principles in the development of a physical food hub at UBCO.

There are eleven principles associated creating vibrant community spaces with Placemaking:

- 1) *The Community is the Expert*
- 2) *Create a Place, Not a Design*
- 3) *Look for Partners*
- 4) *You Can See a Lot By Observing*
- 5) *Have a Vision*
- 6) *Start with the Petunias: Lighter, Quicker, Cheaper*
- 7) *Triangulate*
- 8) *They Always Say “It Can’t Be Done”*
- 9) *Form Supports Function*
- 10) *Money is Not the Issue*
- 11) *You Are Never Finished* (Project for Public Spaces, n.d.).

Biophilia/ Nature Integration

There has been a substantial amount of research showing that contact with nature directly promotes health and mental physical and psychological well-being (Schroeder et al., 2013). This is not a new idea: “Throughout history and across cultures, people have considered access to some form of “nature” as a fundamental human need [...]. Writers from the earliest times have recognised that the landscape [...] supports us at every level in our wellbeing” (Ward Thompson, 2010, p. 194). The Biophilia hypothesis indicates that contact with the natural environment is crucial to human wellbeing (Ward Thompson, 2010).

Sustainable building certifications such as the Living Building Challenge emphasize the importance of incorporating nature and natural landscapes into building projects, both for the health of humans as well as the environment (International Living Future Institute, 2019). It is not only direct nature integration that has benefits, but even being able to view natural environments from windows, gardening and/or farming, and incorporating natural colours such as blues and greens into the design of interior space (Ward Thompson, 2010). Biophilic design is also beautiful: “[it] emphasizes that people and nature are connected and the connection to place, climate, culture and community is crucial to creating a beautiful building” (International Living Future Institute, 2019). Natural environments can also aid in individual recovery from stress and other mental challenges (Francis et al., 2012), which are commonly associated with food insecurity and hunger. The physical food hub at UBCO could employ the principles of Biophilia and Nature Integration in order to further support overall health and wellbeing of the campus community.

Environmental Scan

Methodology: We conducted an environmental scan of existing food security and wellness services and programs within Canada (See Appendix B). We established connections with a variety of representatives from community organizations as well as postsecondary institutions through email, obtaining contact information through an online search of relevant initiatives and organizations. We held 13 virtual consultations with postsecondary institutions and community organizations over Zoom, Google Hangouts, or via phone-call. From these conversations, we gathered extensive information about existing food security programs and services. In some cases, a snowball sampling method was used as individuals we spoke with connected us to other initiatives. We conducted an online environmental scan, collecting information on 12 additional postsecondary institutions and community organizations. In total, we collected information on 25 food security initiatives. The following sections highlight the most relevant and successful programs and services, as well as observed trends and similarities. The questions we posed in these conversations were informed by UBC Strategic Planning: the Inclusion Action Plan, the Indigenous Strategic Plan, the Wellbeing Strategic Framework, and the Climate Action Plan (in draft). An online search revealed evidence of no current models of food hubs at postsecondary institutions in Canada excluding Lakehead University, which is in the beginning stages of renovating the Lakehead University Student Union Food Bank, transforming it into a multipurpose food hub designed to promote food security. All of the postsecondary institutions and community organizations that we corresponded with supported the development of a physical food hub, and in many cases, expressed interest in designing and implementing similar models in the future.

Student Union: We consulted with 8 food initiatives at postsecondary institutions as part of the environmental scan, all of which are student union fee-levy groups. 3 initiatives noted that they became fee-levy groups through a referendum process brought forth by the group themselves. All 8 groups are reliant on funding from the student union fee-levy. Partnership with the student union and subsequent fee-levy funding enables the overall functioning and effectiveness of all 8 campus food initiatives across Canada notwithstanding the group's purpose, deliverables, or governance structure. The student union plays an essential role in the ability of these services to exist. At The People's Potato Collective at Concordia University, the student union provides health and dental care in addition to IT support and office space for employees of the collective. In some cases, groups felt that ties to the student union constituted a precarious existence, expressing concern over the possibility of new unsupportive student union leadership and/or volatility due to strained relations between the university and the student union. Despite this, the groups we spoke to were unanimously grateful for student union support, acknowledging that their work would be impossible without it.

Funding: Student union fee-levies comprise the bulk of funding for all 8 food initiatives at postsecondary institutions that participated in the environmental scan. Some groups receive supplemental financing in a variety of ways. For example, cooperative, non-profit cafes or restaurants wherein sales are used to provision affordable food, programs, and services, such as The Seasoned Spoon at Trent University. Campuses also facilitate fundraising initiatives; however, this does not constitute a reliable or meaningful source of funding. Lakehead University launched an ongoing GoFundMe targeted at university alumni, which they identified as successful, raising over \$5000.00, so far. Mount Royal University hosts an annual week-long fundraising campaign on campus, inviting students, faculty, and staff to participate in competitions. In addition, applying for status as a Good Food Organization with the Community Food Centres of Canada, like the Ryerson Good Food Centre, could open up avenues for grants. Concordia University provides in-kind support through the provision of physical space for the People's Potato Collective. The People's Potato Collective operated out of an older industrial kitchen for many years until recently, when Concordia University undertook a million-dollar budget renovation to construct a brand new kitchen space for the group, beside the student wellness centre. The senior administration at Concordia University doesn't collect rent or money for electricity, etc. from the group. At McGill University, the

Midnight Kitchen is provided free garden space to establish a community garden each year. Groups that didn't receive in-kind support from the university senior administration often expressed worry over the precariousness of funding and space. Again, although many food groups on campus encouraged donations and other forms of fundraising, the essential base funding for each initiative was provided through student union fee-levies.

Internal Partnerships: The food security initiatives at postsecondary institutions that we spoke with participated in a wide array of internal partnerships within the university setting. The Concordia Food Coalition partners with faculty on campus in order to facilitate meaningful, community-based, food and/or sustainability focused research for students, faculty, and the broader community. As well, faculty often supported the initial start-up of the initiative, undertaking research projects later on. Three groups have relationships with their campus food service provider; they receive donations from food service providers, or have taken over kitchen space from them. In some cases, student food initiatives exist in direct opposition to corporate food service providers, such as The Seasoned Spoon and the Concordia Food Coalition. Groups often partnered with other student services at the university such as counselling services and financial aid in order for reciprocal referrals to take place. At Mount Royal University, a partnership was fostered between the food initiatives and the library in which students had the option to donate nonperishable goods instead of paying a library fee.

External Partnerships: Both community organizations and postsecondary institutions repeatedly reaffirmed that external partnerships are essential to the establishment and maintenance of their initiatives. It was recommended to foster partnerships with local and regional politicians, national food security organizations such as Community Food Centres of Canada and Food Secure Canada, and national student organizations such as Meal Exchange. It was also recommended to partner with local community and food-based organizations. Many groups had partnerships with other local postsecondary institutions. Every campus food initiative had partnerships for food procurement for services and programs. Most groups partnered with local farmers, grocery stores, and food banks. These partnerships were crucial to program and service delivery. Embark, at Simon Fraser University, partnered with a local Nester's that donates unsellable produce and goods to their programs and services. This enables Embark to facilitate community kitchen programs for students in addition to running a free market that enables access to free, healthy foods in an unstigmatized and accessible manner. The People's Potato Collective partners with local high schools, offering stagiaire positions to students with learning and developmental disabilities to gain vocational skills in cooking, create community, and to acclimatize to the university environment.

Programs and Services: 7 campuses facilitate a food bank service; however, all 8 campuses operate programs and services that go above and beyond the typical services provided by food banks. 6 campuses operate a by-donation or free, no barrier (no request for identification, no means testing, etc.), daily or weekly meal programs. The Midnight Kitchen and The People's Potato Collective offer a free/by-donation hot vegan lunch to students and the broader community every day. The People's Potato Collective serves 400 meals every day on average. The peer support centre at Mount Royal University provides a free, nutritious, simple breakfast Monday through Friday. 7 campuses offer a Good Food Box, host a Good Food Market, or provide another reliable way for students to access affordable fresh fruits and vegetables such as a farmer's market. All 8 postsecondary institutions we spoke with have a campus garden or farm where students and community members are able to grow and glean food. All groups conduct community kitchen programs, cooking classes, and other food and/or finance based workshops, some on a regular basis and others, less frequently. Other innovative programs include: a grocery bus service at Lakehead University that picks students up and brings them to and from the grocery store, an independent grocery store that sets up a mobile market at Mount Royal University weekly. Lakehead University has a library of food-related resources in their food centre. The Concordia Food Coalition encourages students to submit proposals for projects promoting food security and food justice. If the proposal is accepted, this group funds the student-led project, and connects the student to relevant and helpful resources. The majority of programs and services offered by campus food groups are offered to students and community members free of charge.

Physical Space: Many groups experienced precariousness with regards to space; most groups did not have a permanent space, renting from the university or granted temporary access to campus spaces. As well, they noted that they didn't have enough space to support the type and amount of programming and services needed on campus. Precarious access to space was a theme that arose in many of our conversations. The groups that had access to permanent space on campus often had a closer relationship with the university senior administration as well as the student union. These groups were thus better able to provide more effective and reliable programming and services for students. Many of the campus food initiatives we spoke with had a kitchen, and if they didn't, they expressed a desire for kitchen space for programs and services. Most groups preferred an industrial and spacious kitchen space. In some cases, groups had taken over kitchen space that had been vacated by the campus food service provider or other campus groups that had moved. Most groups noted having a comfortable space or lounge area for students to eat and relax in, identifying the importance of having a space for students to feel comfortable, and for there to be an accessible space for workshops or other community events. Many groups spoke about the importance of having a space that is wheelchair accessible, and one group lamented the location of their office because it is in an older building that is not wheelchair accessible. Everyone we spoke with acknowledged the importance of having an outdoor space for growing food. All campus groups we spoke to had at least one established outdoor farm or garden, and one group, Embark, also had an indoor vertical garden. Concordia, Simon Fraser University, Ryerson University, and Trent University all have more than one space to grow food on campus.

Employment: All 8 campus initiatives were governed by non-student employees, student employees, and volunteers. All 8 groups employed non-student trained staff for program oversight, kitchen management, student care, ensuring safety, and other responsibilities that require full-time hours and previous training. All 8 groups also hired part-time student employees to manage specific areas such as web-design or event coordination. In every case, the group was able to provide salaries to their employees from the funds received through the student-leivies. The Ryerson Good Food Centre partnered with a campus initiative called Career Boost to provide funding for 15% of one student employee's salary. All groups rely heavily on volunteers for programs, services, and general operations noting that volunteers benefit from training in food preparation, program facilitation, and other transferable skills. Many initiatives also recognized volunteering as a way that students access community, education, and pathways to future employment.

Inclusion, Equity, and Accessibility: All food initiatives discussed the importance of having a space that is accessible for folks with physical disabilities or other mobility issues. The Midnight Kitchen discussed the importance of ensuring diverse representation amongst staff and volunteers so that a diverse group of students feel welcomed into programs and services. The Concordia Food Coalition discussed outreach methods, contacting students, faculty, and staff in addition to maintenance staff at the university such as janitorial staff, and other workers in the community. They reach out to a diverse group of community members in order to ensure that their operations are known and available to everyone, making their operations truly accessible and welcoming. Many groups discussed the importance of respecting the dignity and self-determination of participants and clients when providing programs and services. Providing barrier-free, de-stigmatizing programs and services was mentioned in every discussion. Groups discussed doing this in a variety of ways from creating a warm and welcoming physical environment to providing culturally appropriate and relevant foods to ensuring that no means-testing occurs during program and service provision.

Sustainability Initiatives: Many of the food initiatives identified sustainability and climate change resiliency as important values; however, due to inadequate funding and under-resourcing, most initiatives were not able to directly incorporate sustainability objectives. Most initiatives were, however, closely linked with sustainability initiatives on campus. They noted these partnerships as beneficial and desirable, but the compartmentalization of food and sustainability as preventing truly holistic approaches to wellness on campus. Embark, at Simon Fraser University, addresses both food system issues as well as sustainability; however, this initiative is an independent nonprofit (funded through student union fee-leivies), and their disaffiliation from the university and the student union allows more flexibility in terms of which issues are

addressed, and how. Furthermore, Embark consults the student body on organizational priorities each year. Students themselves prioritized food as well as sustainability as priority areas to be addressed in this group's strategic planning for this past academic year. Groups discussed their farming and gardening operations, food rescue programs, and local-focused food procurement strategies as strong contributions to their sustainability objectives.

Advocacy, Policy, and Student Activism: Many groups expressed a desire to engage in more advocacy and policy work than they are presently, but expressed frustration regarding under-resourcing. Groups discussed how occupied they were with daily operations of programs and services, leaving little time to be able to actively participate in advocacy, policy reform, or other forms of activism on campus and within the community. The Concordia Food Coalition has a mandate that includes a strong advocacy component. They work with faculty, hire a student action researcher every year, hold conferences that focus on policy reform and food justice, and have advocated for an independent food system on campus since their inception about ten years ago. The Concordia University senior administration has listened to this group, and they are now engaging in a collaborative project examining viable alternatives to their current campus food services. They also hold a week-long orientation event in September, inviting students into the food movement through activities, workshops, and community kitchens; they identified this orientation as crucial to inspiring student activism. Many groups such as The Midnight Kitchen, The Seasoned Spoon, and The Ryerson Good Food Centre lend their space to other campus clubs and groups for workshops, community events, and meetings. Enabling other like minded organizations to have a gathering space is one way that campus groups identified promoting their values and engaging in student activism.

COVID-19 Response: As food insecurity becomes even more prevalent during this time as employment, income, and food systems become increasingly precarious, all campus food initiatives discussed their responses to the situation caused by COVID-19. Some initiatives are, unfortunately, unable to operate because of the inability to access facilities on campus. In this case, many groups partnered with other campus groups and/or community groups to support students in accessing food. Many of these partnerships resulted in actions such as the distribution of food hampers, the creation of new Community-Supported Agriculture (CSA) partnerships, and new Good Food Box initiatives. Many groups are using this time for resilience planning and deepening community partnerships. Some measures that food initiatives are employing may be temporary; however, other innovations or partnerships that develop during this time may be a long lasting addition to program and service provision beyond this era.

Results

“The physical food hub is a true community space with a multifaceted approach to addressing food insecurity. Community is central.”

- Equity Inclusion Office

“The Food Hub is an opportunity to invite students into connection with food, to normalize eating together without distractions, and to have good conversations over food.”

- Institute for Community Engaged Research

We held 23 consultation sessions with a diverse group of 109 students, staff, and faculty representatives from UBCO (see Appendix C). Support for this project was unanimous, with some variation of opinion regarding funding, space, and programming. These consultations were inspiring and validating. We received strong encouragement in addition to important recommendations, and enthusiastic interest in pursuing further involvement with the food hub project. All groups expressed belief in the crucial need for a physical food hub at UBCO. Each consultation took the same format, held over Zoom. We delivered a presentation in which we defined food security, detailed student household food insecurity at UBCO, discussed the literature and environmental scan, and presented the concept of the physical food hub. We asked the same set of questions during each consultation (See Appendix D), with a number of additional questions directed to the specific group with which we were consulting. The questions we asked were directly informed by UBC Strategic Planning. The subsections that follow summarize themes that arose in consultation, and include some of the advice, suggestions, concerns, and opinions received. This feedback directly informs the recommendations found in the following section.

Funding: We were given a multitude of recommendations regarding funding both for the initial development of the food hub as well as for ongoing programming and services. Most groups expressed that this either needs to be a university-financed project, or that the UBCO Student Union (UBCSUO) must provide the majority of funding. Those that advocated for funding by the university recommended that responsibility for the food hub be under jurisdiction of the Associate Vice President Students portfolio. Another suggestion was that the university should provide rent-free space for this project. Those that supported UBCSUO involvement discussed the possibility of a one time larger student levy for the construction of the food hub (similar to the Commons building) in addition to a smaller ongoing student union fee-levy for operating ongoing programs and services. Most students in consultation sessions expressed support for a student union fee-levy for the food hub; they expressed that they would rather their fees finance a food hub than recreation services or frosh. They also suggested an option to opt-out of these fees, which would especially support students experiencing financial insecurity.

Other recommendations for funding included: alumni donors, private donors to fund specific programs e.g. free breakfast, collaboration with collegium program to access existing funding, collaboration with faculty for research grants, corporate sponsorship, collaboration with campus groups, clubs, and unions for expanded funding avenues, alternative market systems such as a campus farm that supplies produce to the food hub, a small drop-in fee for some programs and services, a cooperative model in which all members pay a fee.

Food Procurement: Food procurement was a popular theme in consultation sessions, with participants expressing opinions around what types of food to offer, and where to locate and purchase food. Participants strongly recommended the availability of nutritious, fresh food including vegetables, fruits, eggs, dairy, and meats, with one participant suggesting that a requirement of nutritious food procurement be written into food hub policy. Participants also advocated for fresh food to be available both for group programming as well as the food bank. In addition, a number of people mentioned the importance of purchasing organic food and associated health benefits.

Many groups prioritized local purchasing, creating connections with local producers, farmers, and grocers, thereby supporting local economies and small-scale producers. One faculty member asserted that UBCO should be taking the lead in local food procurement. As well, many suggested collaborating with food services for bulk-purchasing in addition to accessing unused food and leftovers. Recommendations for food procurement also included partnerships with local food and community organizations, for example the Okanagan Fruit Tree Project in order to access unpicked fruit left in orchards. Participants expressed unanimous excitement regarding a UBCO farm operation, discussing the ability of a farm to provide produce to the food hub in addition to a multitude of other benefits.

Governance: In consultations sessions, there was consistent agreement that hired employees would be mandatory in the food hub, just like all of the other student services offices, which have university staff. Responsibilities would include program and service management, ensuring cleanliness and safety standards, administration and coordination, volunteer and student employee coordination, discussion mediation, support students with disabilities, and conflict resolution. It was suggested that food hub staff have expertise in culinary arts, food and/or nutrition, and be committed to decolonization, food and cultural safety, equity, and inclusion. Participants said that having staff would create institutional memory despite high turnover rates of students. Recommendations included having a nutritionist, dietitian, culinary expert, social worker, nurse or healthcare practitioner at the food hub.

Many groups suggested the importance of including student volunteers and student employees in the governance model of the food hub. Participants recommended the work-study program, expressing the significance of creating more opportunity for student employment on campus. Volunteer opportunities could involve a peer-mentorship model. Participants also proposed that the food hub have an advisory board composed of representatives from key areas of the university as well as a student advisory board including Indigenous and International students.

Physical Space: Our consultation sessions included many proposals and suggestions of potential locations for a physical food hub at UBCO. These included: the new downtown campus, the innovation precinct buildings currently under construction, the UNC building at the Okanagan campus, the new ICI buildings for Indigenous studies and research. Regardless of location, many participants noted the importance of visibility and centrality. There were also many suggestions to house the majority of programming and services at a centralized location, with satellite services around campus as well as off campus in the community.

Participants uniformly suggested that the food hub contain both indoor and outdoor components. There were numerous recommendations for the indoor component to be bright, vibrant, window-laden, well-organized, comfortable, and open-concept. Suggested specific features included: couches, big tables, small tables, numerous places to sit, and window planting-boxes. For cooking, participants recommended: multiple cooking and food preparation stations, a larger kitchen space for communal events, an open-concept pantry, a substantial array of spices, large pots and numerous cooking and eating utensils for communal meals. There were many suggestions to create designated areas for specific dietary requirements, choices, and allergies such as halal, nut-free, celiac, etc. Many people described wanting to see artwork from the Sylix Okanagan Nation, representation from international artists, paintings of food, posters with songs of gratitude, and quotes and/or statistics normalizing and describing household food insecurity. Participants also expressed

the wish for bookable rooms and spaces as well as office space. They also expressed the desire for a physical space designed using principles that do not reflect Eurocentric, white standardized norms.

In sessions, we heard the absolute hunger for outdoor garden space in which campus community members can sit, be, and relax. We heard an outright eagerness for active learning gardens, food forests, edible landscaping, outdoor seating areas, community garden space, and a UBCO market garden/farm. Many people discussed the opportunity for rooftop farming as well as the plot of ALR land that UBCO owns. There were many comparisons made to other university farms and gardens as well as to community garden space in and around Kelowna.

“Students need a space like this.”

- Student Experience Office

Internal Partnerships: The importance of developing and maintaining internal partnerships at UBCO shone through as a major theme in our consultation discussions. Firstly, most of the groups expressed keen interest in participating with the food hub project in a variety of ways. For example, Sally Stewart, director of the Nutrition Education Centre, suggested moving the centre to be housed within the food hub. It was suggested that we build on the strength and momentum that already exists on campus, building relationships with The Pantry, Community Service Learning, Campus Health, the new greenhouse on campus, the sustainability and geography departments, and food services. Gary Hartung, director of food services, expressed excitement imagining a cross-campus collaboration of all food services and food-related activities. There were consistent recommendations to involve student clubs and course unions, especially cultural and food-focused clubs. Many people suggested that the food hub would be an ideal space for larger campus events such as Taste of Home and that it would be imperative for other student service centres to be connected with the food hub, such as the proposed centre for Black students.

External Partnerships: Many groups expressed the belief in the essential need for external and community partnerships for funding, food procurement, and programs and services. Some suggestions for community partnerships included: the City of Kelowna, the Okanagan Fruit Tree Project, Summer camps for children, and the Sikh Okanagan Temple. Many people recommended forming meaningful connections with local producers and growers.

Programs and Services: Consultation sessions included a multiplicity of recommendations, both general and specific, for food hub programs and services. There was unanimous agreement on the need for: reliable and consistent programming, a focus on food skills capacity-building, availability of nutrition information, communal cooking and meal preparation, opportunities for students to cook meals for themselves, outside space for gardening and growing food, and the dignified provision of free food. More specific program recommendations included: classes on food storage, preservation, and budgeting, recipe exchange, a kitchen equipment library/loan program, and a cupboard filled with free food for students to access as needed. Many people discussed the importance of having the food hub maintain long hours of operation, with the possibility of remaining open 24 hours. Many participants touched on the value of this for students practicing fasting during Ramadan.

There was also consistent discussion with respect to the intersections of culture and food, with many participants conceptualizing the food hub as a place for international students, and students from various cultural backgrounds to access, share, cook, and eat their cultural foods communally or individually. Suggestions included: cultural club events hosted at the food hub, diverse food options, and available information regarding finding specific foods and ingredients in the Kelowna area. There was also a significant amount of discussion regarding the implementation of programs and services focused on body image, disordered eating, cultivating healthy relationships with food, and mental health such as

therapeutic gardening programs, and partnerships with counselling services at UBCO. Many groups also discussed the need for a grocery shopping option on campus, specifically for healthy and fresh foods. Suggestions included: a campus farmer's market, fresh produce boxes (e.g. the Good Food Box, CSA program), and prepared meal kits including ingredients, a recipe, and nutritional information.

Participants described the food hub as a place to have a quick, affordable, healthy snack or meal either quietly or while socializing. Many sessions also included a discussion on the importance of the food hub providing programs and services for a wide range of students including: students living on campus, students living off campus, mature students, graduate students, and single parents. Participants envisioned the food hub as a central location for campus events, research, social connection, and relaxation. They expressed the idea that this space could be a centre, not only for food security, but also for overall health and wellness. This vision included a room for napping and music events.

Student Involvement: Students, staff, and faculty alike described student involvement as essential, with students as the primary users of food hub programs and services they will activate the space, and give voice to this project. There were many ideas expressed regarding the food hub as providing opportunities for students to learn about the food system, how to grow food, where food comes from, how to cook, etc. Many viewed the food hub as an educational and recreational centre for food programs and activities. Other recommendations included: student volunteers, peer mentorship, student employment, directed studies, practicum placements, course-work, a student advisory board. We heard a number of suggestions for engineering student involvement with projects such as waste collection, composting systems, solar energy, and greywater systems.

Faculty Involvement: Faculty expressed keen interest in involvement with the food hub in a variety of ways such as research, teaching, and engaging in recreational programs in order to build community and relationships with students. They discussed the possible opportunity for leveraging funding for the food hub through research as well as bringing in community partnerships with which they are already connected. They discussed the opportunity to incorporate the food hub into coursework. They also expressed the desire to support students' overall wellbeing, and believed that the food hub would achieve this. They also mentioned supporting the management and business operations of the food hub.

Inclusion, Equity: There was unanimous agreement regarding the importance of ensuring ongoing inclusion and equity in the food hub. Participants expressed that the food hub must be a safe space, community-oriented, and use a holistic approach in addition to ensuring dignity when accessing free food and normalizing experiences of household food insecurity. We heard a number of suggestions about providing positive messaging and advertising about food hub programs and services, and ensuring that there is always a variety of foods available including vegan, vegetarian, Halal, Kosher, gluten-free, and nut-free options. We also heard that it will be essential to have diverse representation amongst staff and volunteers in addition to ensuring that there are many eyes on this project all throughout the development phase in order to identify gaps and areas of concern. Many groups asserted that the food hub must be inclusive for international students and students from all backgrounds and cultures; a place for international students to experience and access comfort foods from back home, have a wide array of spices available, host cultural events, and prioritize communal cooking and eating. One recommendation included using the intentional equity diversity and inclusion decision making tool.

"A multi-purpose space that would be attractive to a wide variety of students, help nurture on and off-campus partnerships, provide opportunity for environmental regeneration and sustainability, and to promote equity on campus."

- Open Student Consultation

Accessibility: Every group agreed that the food hub must prioritize physical accessibility; we received specific instruction and recommendations from the Disability Resource Centre (DRC) and the DRC's Student Advisory Board. We discussed the fallacy of universal design, receiving feedback to create dedicated spaces for individualized needs, and experiences of cooking and programming. Variability should be prioritized, and perhaps there could be hours in the space where stimuli would be limited e.g. low lighting, quiet hours. We heard suggestions for ensuring numerous wheelchair accessible tables and seating areas, large spaces between seats for wheelchairs, lots of legroom under tables, wheelchair accessible cooking spaces, varied counter heights. We received specific suggestions to have all appliances including stove and counters on wheels, cupboards that users can open and pull down to their height, raised garden beds with shallow depth that can be reached from a wheelchair. We also received suggestions to have options for dim lighting, quiet space, and noise-cancelling headphones on hand for folks with sensory sensitivities. In addition, one group voiced that it could be helpful to have a staff on hand to coordinate and ensure accessibility.

Sustainability: Most consultations included a discussion on sustainability, and there was consistent agreement that sustainability must be incorporated into the food hub. Suggestion included: incorporating sustainable design principles into the construction of the physical food hub, focusing some programs and services in sustainability e.g. compost program, and ensuring sustainable food procurement such as emphasizing local purchasing, preserving food through the winter, and prioritizing food rescue. Participants discussed the use of permaculture, building a closed-loop, regenerative, system through a blend of outdoor and indoor space. Other suggestions included: solar energy, greywater systems, hydroponics, recycling, compost, vermicomposting, and responsible waste management. Compost was mentioned in numerous consultations, with groups excited by the prospect of having a campus compost system. People saw the food hub as a place to host discussions on the nuances of sustainability, sustainable diets, meat consumption and climate change, and a place to inspire sustainable practices. Further discussions included: the importance of conducting life cycle assessments of food at UBCO, and aligning our work with the UN Sustainable Development Goals.

Advocacy: A number of students, staff, and faculty touched on the importance of prioritizing research and advocacy at the food hub. Participants regarded the food hub as a place for education and action on food justice and food systems. Other suggestions included: the food hub as a location for continued research on food security at UBCO, and the food hub as a space for student activism.

Decolonization: In every consultation, we asked how to decolonize the food hub space and the programs and services housed within it. Any effort in reconciliation and decolonization will first be discussed with Aboriginal Programs and Services, and anyone else that they recommend we consult. Participants voiced that a decolonized space for cooking prioritizes community and access to traditional foods for Indigenous students. One suggestion included forming an Indigenous students advisory board for the food hub. The Institute of Community Engaged Research currently has a number of projects focused in decolonization and reconciliation of food systems; they suggested potential collaboration with the food hub. A student suggested that the food hub contain a freezer for Indigenous students from the north to store country foods. She also suggested having Inuit cooking utensils such as Ulus. Another student recommended that there should be ongoing recognition of the origins of foods, recipes, and ideas. There were numerous suggestions regarding plants and growing such as a section of a future UBCO farm should be for native plants and/or for Indigenous students, and hosting native-plant walks.

Recommendations: Next Steps

“Someone has to cut the path; if a university with capacity can’t do it, who is going to do it?”

- Student Development and Advising

The consultation process revealed strong support in favour of the development of a physical food hub at UBCO. Not only did students and stakeholders confirm the essentiality of this project, they advocated that it be a top priority for the university at present. They recommended that this project move quickly in order to begin addressing growing rates of student household food insecurity on campus. What’s more is that students and stakeholders, faculty and staff alike, are eager to dive into this project and increase their personal and professional involvement with food security and wellbeing on campus. Desire for involvement was practically unanimous. Our campus wants this project to become a reality, and soon.

All of our consultations indicated that the development of a physical food hub must adhere to the enacted values of reconciliation, inclusion, equity, accessibility, and sustainability. The overarching message was that our campus community wants a space that is built upon a strong foundation of articulated and embodied values. Specific recommendations concerning these fundamental values can be found in the Results section of this report. In all of our discussions, students and stakeholders communicated that the physical food hub must be host to a plethora of programs and services that advance food security by uniquely and simultaneously addressing household food insecurity, capacity, and food systems. Student, staff, and faculty involvement is a key factor to the success of creating, activating, and maintaining this project; numerous representatives from these three groups picture themselves involved with this project on an ongoing basis. In order to move this project forward, campus stakeholders firmly advised that we secure endorsement from senior administration. They also identified external partners as equally important to this project, with community involvement and support as essential. The crux of discussion in consultation often pivoted on governance, funding, and physical space. Based on consultations with key stakeholders, we have formed clear recommendations for these operational priorities:

- 1) The formation of a **multi-stakeholder committee** for the planning and development of a physical food hub at UBCO. The committee is to include students, staff, and faculty. Based on our consultations, we advise representation from the following groups: UBCSUO, Student Experience Office, International Programs and Services, Aboriginal Programs and Services, Institute of Community Engaged Research, Nutrition Education Centre, Campus Health, and the Food Strategy Committee.
- 2) We suggest that the first priority of this committee is to **determine the high-level governance structure** of the physical food hub. Multiple consultation sessions have revealed that the Physical Food Hub may be best housed within the Associate Vice President Students portfolio with appropriate staffing. The consultation process also revealed that staffing is essential. Physical space and funding are the next priorities after governance.
- 3) The university administration and planning departments must **prioritize the physical food hub in development and construction on campus**; the construction of new buildings on campus and/or renovations of existing buildings. The university administration must also prioritize allocating outdoor space for the outdoor component of the food hub.

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Appendices

Appendix A: UBC Strategic Planning

Okanagan Charter

Okanagan Charter Call to Action 1: Embed health into all aspects of campus culture, across the administration, operations, and academic mandates. It specifically demonstrates principles:

1.2 Create supportive campus environments. Enhance the campus environment as a living laboratory, identifying opportunities to study and support health and well-being, as well as sustainability and resilience in the built, natural, social, economic, cultural, academic, organizational and learning environments;

1.3 Generate thriving communities and a culture of wellbeing. Be proactive and intentional in creating empowered, connected and resilient campus communities that foster an ethic of care, compassion, collaboration and community action, and;

1.4 Support personal development. Develop and create opportunities to build student, staff and faculty resilience, competence, personal capacity and life enhancing skills – and so support them to thrive and achieve their full potential and become engaged local and global citizens while respecting the environment.

20 Year Sustainability Strategy

Operations and Infrastructure:

Strategic goal 4. The built environment demonstrates regenerative design and operation throughout the UBC Community. UBC Community:

Strategic goal 2. Integration of social sustainability demonstrates improvements in health, productivity and quality of life of the UBC community.

Strategic goal 3. Innovative engagement programs strengthen linkages across the campus to generate a sense of place and support the creation of a vibrant, animated, and sustainable live-work-learn community.

Strategic goal 5. UBC models a sustainable and integrated food systems that equally values environmental, social, and economic outcomes and assesses impacts of food production, transformation, and consumption on environmental, personal, and community health.

UBC Wellbeing Strategic Framework

Food and Nutrition, Mental Health and Resilience

UBC Strategic Plan: People and Place

Strategy 2: Inspiring spaces

Strategy 3: Thriving Communities Strategy 4: Inclusive Excellence

Appendix B: interviews with postsecondary and community food projects

<i># Participants</i>	<i>Role</i>	<i>Organization</i>	<i>Location</i>	<i>Date contacted</i>
1	Coordinator, Civic and Community Engagement	Simon Fraser University	Burnaby, BC	May 15, 2020
1	External Coordinator	Concordia Food Coalition	Montreal, QC	May 15, 2020
3	Sociology, Food Security Committee LUSU VP Finance and Operations Student Outreach Officer	Lakehead University	Thunder Bay, ON	May 14, 2020
1	Manager, Partnership Development	Community Food Centres of Canada	Toronto, ON/Canada	May 13, 2020
1	Executive Director, Office of Social Innovation	Office of Social Innovation, Ryerson University	Toronto, ON	May 12, 2020
1	N/A	People's Potato, Concordia University	Montreal, QC	May 12, 2020
1	N/A	Midnight Kitchen, McGill University	Montreal, QC	
1	Programs Manager	Embark, Simon Fraser University	Burnaby, BC	May 7, 2020
2	Good Food Campus Lead- West Engagement and Communications Lead	Meal Exchange	Canada	May 6, 2020

1	Interim Executive Director	The Seasoned Spoon, Trent University	Peterborough, ON	May 6, 2020
3	Director, Student Services Peer Support Coordinator Manager, Student Services	Student Union/Peer Support Centre, Mount Royal University	Calgary, AB	May 1, 2020
1	Coordinator, Good Food Centre	Ryerson Good Food Centre, Ryerson University	Toronto, ON	May 1, 2020

Appendix C: UBCO Engagement

<i>Department/Group</i>	<i># Participants</i>	<i>Date</i>
Library Services	1	August 10
Operations and Planning	4	July 17
Funds and Development	10	July 16
Aboriginal Programs & Services	2	July 7
Alma Mater Society, UBCV	1	July 7
Student Union Okanagan, UBCO	17	July 2
Equity Inclusion Office	4	July 2
Institute of Community Engaged Research	2	July 2
Food Strategy Committee	12	June 24
Students (open consultation)	1	June 23
Graduate students	1	June 23
Disability Resource Centre	3	June 23
Campus Health and Wellbeing - Students	13	June 22
Student Development & Advising	1	June 19
International Programs & Services	3	June 18
Health & Wellness	8	June 18
Faculty	3	June 18
Disability Resource Centre Student Advisory Committee	2	June 17
Sexual Violence Prevention and Response Office	3	June 17
Students (open consult)	3	June 16

Student Experience Office	6	June 16
Students (open consult)	4	June 9
Students (Master of Social Work)	6	June 3

Appendix D: Consultation Questions

What does your ideal food hub look like?

How might students/staff/faculty use this space?

Advocacy, policy work, and research in this space?

How can this space support sustainability and climate change?

How can this space be inclusive and equitable?

How can this space support wellbeing?

Sources of funding?

What are your concerns? Recommendations?

How can we decolonize this space?