Initiating and sustaining community gardens and community kitchens: A preliminary study in Nova Scotia

December 2014

An Initial Report by Tim Cashion, Irena Forbes, and Dr. Irena Knezevic

Corresponding Author: Dr. Irena Knezevic, Irena.Knezevic@carleton.ca

Abstract
Community food initiatives such as community kitchens and gardens have increased in popularity and number over recent years. While ample evidence exists to point to the benefits of community food initiatives, little research has been carried out on what is required to initiate and sustain such endeavours. This initial report seeks to explore that question through in-depth interviews with community food initiative coordinators in Nova Scotia, Canada. The interviews identify barriers coordinators face, and resources necessary for their community food initiatives. Through this research, commonalities arise on the current precarious state of these initiatives because of the reliance on volunteers, land ownership issues, and a lack of consistent funding. However, these initiatives survive under such conditions due to community support, and dedication of coordinators. This report contributes to our understanding of community food initiatives with practical insights into how communities can strengthen existing and nascent initiatives and ensure their long-term sustainability.

Keywords
Community food initiative, community garden, community kitchen, food security, local food system, sustainability.

Introduction
This report was generated from research activities relating to the Community-University Research Alliance: Activating Change Together for Community Food Security (ACT for CFS), a Social Sciences and Humanities Research Council of Canada-funded project based in Nova Scotia co-led by FoodARC (Mount Saint Vincent University) and the Nova Scotia Food Security Network. In 2011-2012, ACT for CFS team members engaged over 400 stakeholders in Nova Scotia to better understand priorities and issues relating to community food security. This process generated many ideas to inform the development of Participatory Community Food Security Assessments, through which four communities gathered community-level data on ten indicators of community food security. The engagement process also revealed a need to better understand the challenges experienced by community partners in initiating and sustaining community food initiatives as a community-based response to strengthen community food

security. This need was identified to be an ideal opportunity for student learning, resulting in a student research project (2013-2014) and the creation of this report.

Community gardens and community kitchens have generally been accepted by health practitioners and community organizers as beneficial to society and individuals. The literature review in the next section provides a glimpse into the evidence that exists on the subject. However, fewer studies have explored what is required to initiate and sustain these community food initiatives. Typically, community food initiatives have faced many barriers to sustainability and have required many resources to operate successfully. Examples of barriers include trouble securing locations, accessing funding, or finding committed volunteers. While we recognize that the term "community food initiatives" may include a variety of programs (see for example Knezevic, Landman, Blay-Plamer, & Nelson, 2013), for the purpose of this research we selected to consider only community gardens and community kitchens as some of the most accessible and most hands-on approaches to building healthy and vibrant communities.

In 2012, when this research begun, we were able to identify at least 34 community gardens and community kitchens[1] operating within Nova Scotia, Canada, a province with the population of just under one million people. Many of these initiatives are run by community organizations and connected to the not-for-profit sector with limited funding and access to resources. These community initiatives were identified from publicly available sources and databases accessible through research partners. This suggests that community food initiatives tend to have a continuously tenuous existence, and their survival and growth are dependent upon the well-being of a traditionally precarious sector.

The purpose of this study was to explore what specific assets were required to initiate and sustain community food initiatives. Specifically, we wanted to identify what facilitates and impedes success of such initiatives. A qualitative research approach with a semi-structured interview guide was used to interview a total of six coordinators from both community gardens and kitchens in Nova Scotia. This ensured that input was provided from each type of community food initiative to provide insights into their occasionally varied needs. Through this study we hope to gain a better conceptual understanding of the needs of community food initiatives.

Context of Study

Despite the growing popularity of community food initiatives in Canada, there is insufficient literature exploring what is required to initiate and sustain them. Past literature has considered their prevalence and benefits. Engler-Stringer and Berenbaum estimate there were over 2,500 community kitchens across Canada in 2005. The exact number of community gardens is impossible to estimate, but Seto's 2011 work may serve as an indication of the popularity of community gardens – at least 74 community gardens existed at that time in Vancouver alone, with 3,260 individual garden plots. Existing research concentrates on identifying or maximizing benefits of community food initiatives. Those benefits include: decreased stress (Engler-Stringer & Berenbaum 2007; Pion, 2012); increased cooking skills (Chung, 1998; Fano, 2004) or gardening skills (Pion, 2012); increased food related knowledge and variety of foods, decreased fat consumption (Engler-Stringer & Berenbaum, 2006); improved nutrition (Blake, 2009); improved physical activity (Pion, 2012); increased social capital (Fano, 2004; Milburn, 2010);

---

[1] This estimate was based on the ACT for CFS preliminary data pertaining to inventories of local food initiatives. The inventories were developed by community partner organizations to better understand the existing assets contributing to community food security. When this project was designed, the data was preliminary and thus our number of 34 may underrepresent the total number of initiatives in the province.

improved health determinants including education, copings skills, personal health practices, and social support networks (Fano, 2004); and individual empowerment (Chung, 1998). Community gardens can also enhance landscape (Iverson, 2010; Krasny, 2009), reduce crime (Blake, 2009; Short, 2012), increase a sense of community (Blake, 2009), and increase the property value in the surrounding area (Guitart, Pickering and Byrne, 2012).

Few studies suggest models that help sustain community food initiatives. For sustained *interest* of community participants, Short (2012) recommends a participatory leadership model. In agreement, Milburn and Vail (2010) and Blake (2009) also suggest that a sense of ownership may be beneficial for longer-term participant and community involvement. Milburn and Vail (2010) identified sustained interest as one of four key concepts to sustain community gardens. However, we were unable to find studies that systematically examine the conditions that support the initiation and sustainability of community food initiatives with a specific focus on community gardens and kitchens.

Community food initiatives are often seen as a response to food security issues. Corrigan (2011), discusses the growth of low-income neighbourhoods using community gardens to increase their access to fresh produce. Engler-Stringer and Berenbaum (2005) argue that the literature on community kitchens "has focused on food security, nutrition education and skill building, health promotion, and mental health (e.g. social support and empowerment), as well as on the social and economic processes" (p. 247). A community garden literature review by Guitart et al. (2012) looked at all original research (92 papers) on community gardens in academic journals. Their work indicated that: "current research is disproportionally focused on gardens in low-income areas, upon gardeners with different cultural backgrounds and in industrial cities in the USA, potentially biasing our understanding of the characteristics of the gardens, and their motivations, benefits and limitations" (p. 370).

It is not surprising that the growth in community food initiatives is understood to be a way of addressing food insecurity. For instance, Engler-Stringer and Berenbaum's (2005) work suggests that community kitchens in Canada emerged in the mid-1980s – around the same time as food banks started to open across the country. In the three decades that followed, Engler-Stringer and Berenbaum document, some 2,500 community kitchens opened across Canada. Similarly, Guitart, Pickering and Byrne's (2012) review testifies to the increasing number of community gardens as directly linked to access to fresh food, and other food security issues. However there is no evidence that community food initiatives affect long term food security.

Nova Scotia has one of the highest food insecurity rates in Canada. In 2011, the province had a rate of 17.1% of moderate to severe food insecurity (Tarasuk, Mitchell, and Dachner, 2013). This rate is second only to the territory of Nunavut (Statistics Canada, 2011-2012). In comparison, the national average for moderate to severe food insecurity was 8.3% (Statistics Canada, 2011-2012). Despite Nova Scotia's comparatively high food insecurity rates, we are aware of only one Nova Scotia-focused study (Pion, 2012), which examines community gardens in the provincial capital, the city of Halifax. Consequently, this research aims to fill both a thematic *and* a geographical gap by exploring initiation and sustainability factors and focusing on Nova Scotia.

Methods

The interview guide (Appendix A) for this study was prepared in the spring of 2013 by Irena Forbes, during her time as a dietetic intern at Food Action Research Centre (FoodARC) based out of Mount Saint Vincent University. Forbes conducted a pilot study producing the

interview guide that was piloted with two coordinators, one coordinating a kitchen and the other a garden. In July and August of 2013, Tim Cashion, a student researcher at FoodARC used the interview guide to conduct six in-depth, semi-structured interviews. A purposive, nonrandom sample was selected relying on existing relationships that FoodARC staff have with food initiatives across the province, and on publicly available information on community food initiatives in Nova Scotia. Coordinators of community food initiatives in Nova Scotia who had been in their position at least six months were thus recruited. Five of the six participants were interviewed over the phone because of geographic distance across the province, with the sixth participant being interviewed in person at their community garden. The semi-structured interviews solicited information about the threats, barriers, opportunities, strengths, as well as the resources required for community food initiatives. This information also examined potential differences in what is required to *sustain* as opposed to *initiate* community gardens and community kitchens. Interviews were audio recorded and subsequently transcribed by Cashion who also took notes during the interviews to guide the interpretation of the data during analysis.

The interview questions served as the basis for the initial coding categories, which were then further refined through open coding. These were sorted into major categories of human resources, material resources, knowledge resource, and financial resources. Cashion and Forbes analyzed the data separately for intercoder reliability, and then compiled their findings into a joint analysis.

Results

The participants of the study were dispersed across the province of Nova Scotia. Three of the six coordinators were paid staff while the other three were volunteers. The coordinators had been in their positions anywhere from six months to more than nine years. Four of the participants (Participants 1, 2, 5, 6) coordinated community gardens, one participant (Participant 4) coordinated a community kitchen, and one was at an organization that facilitated both a kitchen and a garden (Participant 3).

At the time of the interviews, there were 34 known initiatives in the province. Our inclusion criteria (coordinator for six months or longer) was deemed crucial for our study in order to generate longer-term insights. However, this further limited our study population as the work of community garden and kitchen coordinators tends to be underfunded or volunteer-based, and is often short-lived or seasonal work, so that the coordinators do not commonly stay in their positions longer than six months. As a result, we consider the sample size of six to be substantial for a small population and a study that is largely preliminary in nature. To get a better sense of any differences between garden and kitchen experiences, we provide a detailed account of responses in Table 1 and a more descriptive explanation of key findings below.

TABLE 1 – Key findings

Community Food Initiative Type ▶	Garden				Kitchen	Both
Identified Needs and Resources ▼	**1**	**2**	**5**	**6**	**4**	**3**
Precariousness	✓	✓	✓	✓	✓	✓
Need for steady funding	✓	✓	✓	✓	✓	✓
Need for paid coordinator			✓	✓	✓	✓

	1	2	3	4	5	6
Reliance on volunteers	✓	✓	✓	✓		✓
Lack of *committed* volunteers	✓		✓			✓
Lack of secured land tenure	✓	✓		✓		
Other resource concerns					✓	✓
Community partnership key to sustainability	✓	✓	✓	✓	✓	✓
Community partnership key to growth			✓	✓	✓	
Knowledgeable people key to growth	✓	✓				✓
Importance of youth and child programming	✓	✓	✓	✓		
Importance of teaching food skills	✓		✓	✓	✓	
No significant impact on food (in)security		✓	✓	✓		✓
No mention of food security as impact	✓				✓	
Importance of social benefits		✓	✓	✓	✓	✓

All participants expressed concern about the precarious nature of their community food initiatives. This stemmed from a lack of secure resources, especially funding, reliance on volunteers and land ownership issues. All participants wished to have a consistent source of funding to partially pay existing volunteers, continue to keep their staff, or hire a permanent paid coordinator. Participant 6 expressed this strongly stating that "I want a one hundred percent increase in my budget to spend on staffing." Most expressed the need for a paid coordinator for their continued success and indicated considerable reliance on volunteers. Some explicitly stated the threat to their long-term sustainability from a lack of committed volunteers. Participant 5 exemplified this point saying "I would say the biggest barrier was, volunteers, having volunteers from the community and gardeners specifically to take ownership or leadership of the project." Garden coordinators cited their lack of land tenure as a threat to long-term sustainability of their garden. Although kitchens coordinators did not have this concern of land tenure, they did note other resource concerns (e.g., space, equipment).

All participants referenced community partnerships as keys to long-term sustainability. Some saw community partnerships as key to the growth of their initiative while others pointed to the necessity of having knowledgeable staff and volunteers. Participant 4 cited that "there's probably potential for us to partner with other organizations," while participant 6 described actively seeking partnerships and said "I've been working on trying to develop partnerships with parallel organizations so that we're starting to build a network, basically around a healthy society." Participant 6 additionally supported this claim through referencing three different partner organizations that were key to their long-term sustainability, in addition to general community support. Expanding to the larger community to involve greater numbers and diversity of people was also sought through programming and existing partnerships organizations. Most gardens were initiating or already had in place programs directed at youth and children to bring a multigenerational attribute to their activities

Community partnerships were understood as reciprocal relationships, where positive contributions to community were essential for continued community support. The major

perceived accomplishments and benefits provided to the community differed throughout the initiatives. Four of the six participants claimed they were teaching food skills to those involved, such as growing food for the gardens, food safety and preparation for the community kitchen. Participant 1 emphasized the importance of the garden as a site of learning when they said that it is more important to teach skills than to give people a space to garden. As noted above, there is a common perception of these initiatives as addressing food security, and this study itself was a product of a larger provincial effort to understand and address community food security. Despite this, and consistent with previous research, four of our six participants stated they were not having a significant impact on food security in their community, with two participants not mentioning food security as an impact at all. Participant 2, however, stressed the importance of social benefits stating "I see a lot of socializing going on, which is one need in a rural community because you are isolated." In agreement, five of the participants claimed that the social benefits for their participants were a major part of their community food initiative.

Discussion

This study aimed to discover preliminary findings of what is required to initiate and sustain community food initiatives in Nova Scotia. The major barriers that were discovered had to do with securing resources especially of: 1) land for community gardens; 2) funding; 3) commitment of labour, such as volunteers or paid staff coordinators; and 4) community involvement of both participants as well as other community organizations. Benefits of these initiatives are often seen as an educational area for: skills, broader discussion of food issues, and social capital/benefits. Although important, this does not seem to have a long-term impact on food security. Therefore, our results generally agree with the literature that is present on this topic. However, we also expand on the literature and offer some comparison between community gardens and community kitchens as they sometimes struggle with different issues, land being the most salient example.

A secured source of funding and land/space was paramount to the sustainability of all the initiatives included in our study. Secured land tenure was identified by Milburn and Vail (2010), so we expected land to be a concern. We are inclined to agree with Milburn and Vail's recommendation that secured land tenure of five to ten years is one of the key factors in sustain community gardens. However, our line of questioning approached resources more broadly to explore other physical resources as supports or barriers to sustainability. We not only included considerations of land tenure but also other resources such as funding, space, and equipment. Consequently, our results indeed revealed concern for a wider range of resources.

In line with this, continued monetary funding through grants was often sought. However, grants were cited as more difficult to secure once the required infrastructure was in place. Thus, grants represent a challenge for community food initiatives to continue operating, especially for costs associated to regular programs and staff. Grants are very beneficial to the initiation beginning of these initiatives. However, as grant funding is often short term, this represents another challenge that often is prohibitive of the continuation of these initiatives.

Labour was another major issue identified by participants. Labour came primarily in two forms: the work of paid staff and that of volunteers. Volunteers played a key role in five out of six of the food initiatives interviewed, and Short (2012) attests to this in the need for core people, community input and a participatory approach. Our findings are also consistent with Pion (2012) who argued that having either a volunteer or paid community garden coordinator may support, at least in part, the ability of the community food initiative to sustain itself.

An interesting revelation was the effect of community food initiatives on food security. No community garden coordinator claimed they had a significant effect on food security with some claiming it to be "a drop in the bucket" (Participant 6). This reiterates the conclusions we drew from our literature review. Community kitchens may impact food insecurity in the short term, through providing either free or low-cost meals to families. There is also longer-term potential through teaching skills on how to provide a healthy diet for a family on a limited budget. Participant 4 especially noted the benefits to nutritional security that their programs assist with. However, there is no evidence that these initiatives have been able to alleviate food insecurity in the long term. Larger systemic and policy changes are required for that, and both community gardens and community kitchens offer some promise in that respect, as they can hold space and promote discussions about the food system, hunger, poverty and politics. In fact, some community kitchens in Quebec have an explicit focus on "broader political goals" (Engler-Stringer and Berenbaum, 2006).

The major barriers in initiating a community food initiative echo the earlier mentioned barriers of land, funding, committed labour, and community involvement. Start-up concerns differed between participants depending on their initial situation. For example, some began with community desire and donated land, while others branched off from existing organizations and programs. The initial barriers to beginning were very specific to each case with no more than two participants citing the same barrier. Their solutions to overcoming these barriers were as unique as their challenges as these initiatives sought funding from government and other organizations and followed diverse paths to sustainability. A common factor, however, was persistent dedication of a core group that contributed to the operational success of the community food initiative. This is consistent in the literature with sustained interest identified as a key successful component in community gardens (Milburn and Vail, 2010; Short, 2012).

We acknowledge that our findings may be limited by our study criteria. Given the fickle and short-term nature of coordinator positions in community gardens and kitchens, it is possible that valuable insights can be gained from those who have not been in a coordinator position for at least six months. As well, we recommend that future research include site visits to combine direct observations with interview data for more in-depth analysis. We also recognize that the geographic scope of our project makes our findings relevant but not necessarily generalizable to initiatives outside of Nova Scotia.

The findings presented in this study can be helpful to those who coordinate community food initiatives. We identified common pitfalls and needs of community food initiatives including the need to gain a broad support from the community, develop partnerships with other organizations, have secured land, establish funding sources, and sustain volunteer commitment. These are key areas new community food initiatives should consider as they are vital for their sustainability and do not disappear once the community food initiative has been established.

Conclusions

This research contributes to the growing body of literature on community food initiatives, and explores a geographic area, Nova Scotia, Canada. This research also directly addresses the issues of initiating and sustaining community food initiatives, which is not significantly addressed currently. Furthermore, we explored the similarities and differences between community gardens and community kitchens to develop an understanding of the different needs and barriers of these community food initiatives.

The data that we have gathered will aid present and future community food initiative practitioners (coordinators, staff, dedicated volunteers, and community organizers). Through understanding the needs and barriers commonly faced by community food initiatives, solutions become more tangible. While some of these factors may be region specific, major commonalities were found with existing literature to support the generalizability of our findings. Through understanding the barriers to initiating and sustaining a community food initiative, community food practitioners can better execute these processes to start and continue to operate their community kitchen or garden long-term.

As community gardens and community kitchens grow in number and prominence, researcher interest in these initiatives is also expanding. This study has sought to be a preliminary study of community food initiatives in Nova Scotia, and we would like to see further research on this topic to better understand community food initiatives. Future research needs to consider the relationship between short and long-term food security strategies and community food initiatives. Specifically, it will be important to more precisely document the impact community food initiatives are having on food security. This could provide nuance for community food practitioners to improve sustainability of their community food initiatives and to maximize the range of benefits that community gardens and kitchens offer.

References

Bidwell, S. (2009). Food Security A review and synthesis of themes from the literature. *Paper prepared for Programme Area Four Community and Public Health Christchurch.* Retrieved April 2013 from: http://www.ana.org.nz/sites/default/files/A%20review%20and%20synthesis%20of%20themes%20from%20the%20literature_0.pdf

Chung, C.L. (1998). Cooking from the bottom-up: an exploration into the use of Vancouver's community kitchens as an empowerment tool. Masters Thesis, Community and Regional Planning. University of British Columbia. Retrieved April 2013 from: http://hdl.handle.net/2429/8911

Engler-Stringer, R., & Berenbaum, S. (2005). Collective Kitchens in Canada: A Review of the Literature. *Canadian Journal of Dietetic Practice and Research*, *66*(4), 246-51. http://dx.doi.org/0.3148/66.4.2005.246

Engler-Stringer, R., & Berenbaum, S. (2006). Food and Nutrition-Related Learning: In Collective Kitchens in Three Canadian Cities. *Canadian Journal of Dietetic Practice and Research*, *67*(4), 78-83. http://dx.doi.org/10.3148/67.4.2006.178

Engler-Stringer, R., & Berenbaum, S. (2007). Exploring food security with collective kitchens participants in three Canadian cities. *Qualitative Health Research*, *17*(1), 75-84. http://dx.doi.org/10.1177/1049732306296451

Fano, T. J., Tyminski, S. M., and Flynn, M. A. (2004). Evaluation of a collective kitchens program: using the Population Health Promotion Model. *Canadian Journal of Dietetic Practice and Research*, *65*(2), 72-80. http://dx.doi.org/10.3148/65.2.2004.72

Guitart, D., Pickering, C., and Byrne, J. (2012). Past results and future directions in urban community gardens research. *Urban Forestry & Urban Greening*, *11*(4), 364-373. http://dx.doi.org/10.1016/j.ufug.2012.06.007

Iverson, M.A.. (2010). Assessing urban brownfields for community gardens in Vancouver, British Columbia. Masters Thesis. Soil Science, University of British Columbia. Retrieved April 2013 from: http://hdl.handle.net/2429/27784

Knezevic, I., Landman, K., Blay-Plamer, A., & Nelson, E. (eds.) 2013. *Models and Best Practices for Building Sustainable Food Systems in Ontario and Beyond*. Report prepared for the Ontario Ministry of Agriculture and Food. Accessed online August 29, 2013 at: http://nourishingontario.ca/models-and-best-practices/

Krasny, M. E., and Tidball, K. G. (2009). Community gardens as contexts for science, stewardship, and civic action learning. *Cities and the Environment (CATE)*, *2*(1), 8. Retrieved April 2013 from: http://escholarship.bc.edu/cate/vol2/iss1/8

Milburn, L. A. S., and Vail, B. A. (2010). Sowing the Seeds of Success Cultivating a Future for Community Gardens. *Landscape Journal*, *29*(1), 71-89. http://dx.doi.org/10.3368/lj.29.1.71

Pion, D. (2012). Benefits and barriers to community gardens and current community programs supporting the creation and continuation of community gardens in the HRM. Internship Education Program *The Mount Community Garden.* Retrieved February 2013, personal communication from the Ecology Action Centre.

Seto, D. (2011). *Diversity and engagement in alternative food practice: community gardens in Vancouver, British Columbia.* Masters Thesis. Resource Management and Environmental Studies. University of British Columbia Retrieved April 2013 from: https://circle.ubc.ca/handle/2429/39820

Short, Aaron. (2012). *Planning the seeds of University Community Gardens: Leadership and Management Techniques for 'Living Laboratories' of Sustainable Campus and Community Development.* Masters Thesis. City Planning. University of Manitoba. Retrieved April 2013 from: http://buller.prov.ca/BullerCentre/projects/50by30/short_aaron.pdf

Tarasuk, V, Mitchell, A, Dachner, N. Research to identify policy options to reduce food insecurity (PROOF). (2013). *Household food insecurity in Canada 2011.* Retrieved November 2013 from http://nutritionalsciences.lamp.utoronto.ca/

Statistics Canada. (2013). *Household food insecurity, 2011-2012.* (Document 82-625-X) Retrieved February 2014, from: http://www.statcan.gc.ca/pub/82-625-x/2013001/article/11889-eng.htm

APPENDIX A: INTERVIEW TOOLS*

Pre-interview questions: name of the community food initiative; position/title, age of majority; paid or volunteer position, length of time in position, length of time initiative in existence.

Abbreviated interview guide: (complete tool available by request from authors)
<u>Common Prompts:</u> advertising and registration, people resources, equipment and space, transportation, knowledge resources, finances, regulation/policy, other.

<u>Questions</u>
1) What facilitated the beginning of your community food initiative?
2) What were the barriers to beginning your community food initiative?
3) How has your community food initiative evolved?
4) Is your community food initiative able to sustain itself right now as currently structured?
5) How do you evaluate your community food initiative?
6) As currently structured, is your community food initiative meeting the needs of the community?
7) If you had a 10% increase in your budget, how would you spend it?
8) Are there any other threats/barriers, opportunities, gaps, strengths, or resources that we have not discussed?
9) Is there anything else you want to add?

* Forbes has updated the interview guide used in this preliminary study which could be adopted by researchers to fit their local situation for a more in-depth understanding of factors relating to initiating and sustaining community food initiatives addressing: transportation issues, advertising, financial resources, leadership structure, material as well as knowledge resources, and regulations/policies. This interview guide can aid to better understand contrasting viewpoints presented by our participants about community food initiatives' impact on food security (this tool is available upon request).