Perspectives on Community Gardens, Community Kitchens and the Good Food Box Program in a Community-based Sample of Low-income Families

Rachel Loopstra, MSc, Valerie Tarasuk, PhD

ABSTRACT

OBJECTIVE: Growing recognition of the problem of household food insecurity in Canada has meant public health practitioners are looking for effective ways to ameliorate this problem in their communities. Community gardens, community kitchens, and food box programs can offer nutritious foods for comparably lower costs, however, the uptake and perceptions of these programs in populations at risk of food insecurity have not been evaluated. Building on a previous finding of low program participation among 485 families living in high-poverty neighbourhoods in Toronto, the objective of this study was to understand reasons for non-participation.

METHODS: One year after the baseline study, 371 families were interviewed a second time and were asked to provide their reasons for not participating in community gardens, community kitchens, or the Good Food Box program. Responses were analyzed by inductive content analysis.

RESULTS: At follow-up, only 12 families had participated in a community garden, 16 in a community kitchen, and 4 in the Good Food Box program. Reasons for non-participation grouped under two themes. First, families expressed that programs were not accessible because they lacked the knowledge of how or where to participate or because programs were not in their neighbourhoods. Second, programs lacked fit for families, as they were not suited to busy schedules, interests, or needs.

CONCLUSIONS: This study provides unique perspective on participation in community food programs among food-insecure families and suggests that these programs may not be effective options for these families to improve their food access.

KEY WORDS: Food security; low-income; poverty; Canada; public health

La traduction du résumé se trouve à la fin de l'article.

Can J Public Health 2013;104(1):e55-e59.

In 2007-2008, 7.7% of Canadian households were moderately or severely food insecure, indicating that they had experienced qualitative and quantitative compromises in their food intake or reduced food intake and disrupted eating due to financial constraints.¹ Household food insecurity has been associated with heightened nutritional vulnerability among adolescents and adults,² and poor health outcomes among children.³ Growing recognition of the seriousness of this problem has led to calls for social policy reforms to address the income inadequacy that underlies food insecurity,^{4,5} but at the same time public health practitioners struggle to find effective interventions that can be mounted at the community level.⁶ In response to an identified need to provide public health practitioners with evidence on strategies to address household food insecurity, the Public Health Agency of Canada recently added food security to their Canadian Best Practices Portal, where they reviewed studies to assess the available evidence on the impact of collective kitchens, community gardens, and the Good Food Box program on household food security.⁶ While these programs have other health promotion goals, they are widely promoted by provincial and municipal public health bodies, (e.g. refs. 7-9) community health centres,¹⁰ and Dietitians of Canada,¹¹ as programs that people who are facing food shortages can use to obtain healthy food at comparably lower costs.

Program evaluations^{12,13} and peer-reviewed publications¹⁴⁻¹⁸ have provided some insight into the benefits of these programs for par-

ticipants, however, this work is limited by a lack of objective pre- and post-test measures, low sample sizes, and provision of insight only from the perspective of regular program users and program coordinators.¹⁹ Exclusively capturing feedback from participating individuals and program operators precludes evaluation of program reach and potentially biases samples to only include those who derive the most benefit from participation. Additionally, there remains a lack of rigorous research on the ability of these programs to improve food access.¹⁹ As public health practitioners continue to search for effective ways to ameliorate the food insecurity of people in their communities, it seems imperative to capture perspectives on these programs from people who are experiencing problems of food insecurity to evaluate the potential for this type of programming to reach and impact this population.

In 2005, we initiated a study of low-income tenant families in Toronto using a community-based sampling approach to examine the relationships between household and community characteristics and household food insecurity.²⁰⁻²³ We found a 65% prevalence

Author Affiliations

Department of Nutritional Sciences, University of Toronto, Toronto, ON

Correspondence: Rachel Loopstra, Department of Nutritional Sciences, University of Toronto, Fitzgerald Building, 150 College St., Toronto, ON M5S 3E2, Tel: 416-978-5452; Fax: 416-978-2747, E-mail: rachel.loopstra@mail.utoronto.ca

Acknowledgements: This study was funded by CIHR operating grants (IGP-74207, MOP-77766, MOP-81173) and SSHRC CURA: Neighbourhood Change and Building Inclusive Communities from Within. Loopstra is supported by a CIHR CGS Doctoral award.

Conflict of Interest: None to declare.

Table 1. Study Population Household Characteristics (n=371)

	Median	IQR
Household income (\$)	\$23,672	\$17,757-\$32,960
Income as percent of low-income cutoff (%)	77.3	60.2-99.8
	n	%
Household type		
Two-parent	151	40.7
Lone mother	208	56.1
Lone father	12	3.2
Number of children <19 years of age		
0	11	3.0
1	129	34.8
2	120	32.4
3	76	20.5
4+	35	9.4
Highest source of income in previous 12 months		
Employment	199	53.6
Ontario Works	70	18.9
Ontario Disability Support Program	22	5.9
Government transfers†	62	16.7
Other	18	4.9
Immigration‡		
≤5 years ago	60	16.2
≤10 years ago	77	20.8
≤20 years ago	114	30.7
≥21 years ago	48	12.9
Born in Canada	72	19.4
Respondent education		
Some or completed post-secondary	166	44.7
High school	125	33.7
Less than high school	80	21.6
Lived within two kilometres of community garden(s)		
No	126	34.0
Yes	245	66.0
Lived within two kilometres of community kitchen(s)		
No	200	53.9
Yes	171	46.1
Food security status		
Food secure	94	25.3
Marginally food insecure	47	12.7
Moderately food insecure	118	31.8
Severely food insecure	112	30.2
Delayed rent to pay for food	108	29.1
Delayed bill payment to pay for food	190	51.2
Gave up phone, TV, or internet services to pay for food	113	30.5
Used a food bank in previous 12 months	84	22.6

† Includes National and Provincial Child Benefits, Government Sales Tax credits, Unemployment Insurance and Worker's Compensation.

‡ Respondent, respondent's partner or both immigrated; or both partners were born in Canada.

of food insecurity in this sample of 485 families, but less than 5% of families participating in community gardens and community kitchens, and no evidence that food insecurity was related to program proximity.²² These findings prompted the addition of open-ended questions to a second interview conducted one year later to explore reasons for non-use and additional measurement of participation in the Good Food Box program. The analysis of these data extends the baseline exploration of community food program use in high-poverty neighbourhoods in Toronto with the objective to understand reasons for non-participation.

METHODS

Families with gross incomes at or below Statistics Canada's mid-income adequacy category, living in subsidized and non-subsidized rental housing, were recruited into the baseline study population through door-to-door sampling in 12 neighbourhoods randomly selected from the 23 "high poverty" census tracts in Toronto.²¹ Between November 2006 and April 2008, approximately one year after the baseline interview, families were re-interviewed. The study was approved by the Human Subjects Research Ethics Board at the University of Toronto.

Figure 1. Expressed reasons for not participating in a community garden in previous 12 months among 359 families not using community garden program*

* Of the 359 families, 12 did not provide a reason for not participating in a community garden in the previous 12 months.

A total of 501 families were recruited into the baseline study population, reflecting a recruitment rate of 62% of eligible families contacted;²¹ 384 completed the follow-up interview, a return rate of 77%. Thirteen families were later excluded from the sample because closer examination of their baseline income deemed them ineligible according to original criteria, therefore a total of 371 families made up the follow-up study sample.

Study interviewers, who themselves had experiences of poverty and food insecurity, were trained in interviewing methods and conducted a structured oral interview with the person in the household primarily responsible for household food purchases and management.²¹ Data collected in the baseline and follow-up study included household income, demographics, food purchasing, household food insecurity (measured by the Household Food Security Survey Module²⁴) as well as information on household participation in community gardens, community kitchens and the Good Food Box program, a subsidized fruit and vegetable food box program particularly focused on providing fresh produce to low-income communities in Toronto.²⁵ Data from the baseline study that mapped locations of community garden and kitchen programs operating in Toronto relative to study participant addresses²² were used to provide insight on participation relative to program proximity.

The follow-up questionnaire included three open-ended questions aimed at each food program of interest (i.e., community gardens, community kitchens, Good Food Box program), which asked respondents who reported no use of a program "why have you or

Figure 2. Expressed reasons for not participating in a community kitchen in previous 12 months among 355 families not using a community kitchen program*

* Of the 355 families, 10 did not provide a reason for not participating in a community kitchen in the previous 12 months.

anyone in your family not used a [food program] in the past twelve months?" Study interviewers were instructed to record the responses verbatim. Because these questions were posed in the middle of a lengthy survey, probing for clarification or further meaning was not part of the interviewing protocol. Thus, the answers provided were short, unprompted statements made by study participants.

Responses to each question were analyzed separately for each type of program by inductive content analysis.²⁶ This method of analysis was selected because the responses contained limited content, which suited a quantitative summary of the types of reasons provided by respondents. The analysis was done by the lead author, who has training in qualitative research methods. Open coding and multiple passes through the data resulted in the creation of small content categories, which were subsequently grouped under common categories and broader themes. The fit of categorization with the original responses was examined by members of the research team, ensuring that the range of responses was adequately captured.

RESULTS

The characteristics of the follow-up study population are presented in Table 1 and highlight the low-income nature of the study population and disproportionate representation of immigrants and lone-parent families in the low-income population in Toronto.²⁷ As found at baseline, there was a very high prevalence of household food insecurity in the study population. The vulnerability in this sample was also underscored by the number of families who reported strategies to increase money available for food, such as delaying bill and rent payments.

Consistent with baseline findings, very few study participants at the follow-up interview reported participation in community food programs in the previous 12 months. Of the 371 families in the follow-up study, only 12 families (3.2%) indicated that someone in their household had participated in a community garden, 16 (4.3%)

Figure 3. Expressed reasons for not participating in the Good Food Box program in previous 12 months among 367 families not using the Good Food Box

indicated participation in a community kitchen, and only 4 families (1.1%) had used the Good Food Box program. The low number of families participating in these programs precluded an ability to analyze food insecurity status and other household characteristics by participation, but we observed that the prevalence of household food insecurity was the same among households participating and not participating in these programs. The rates of participation in community kitchens and gardens were equally low among families living within 2 km of programs compared to those living farther from programs (data not shown).

Comparisons of emergent content categories for the three program questions showed that two common themes summarized the reasons families gave for not participating in programs: 1) programs not accessible, and 2) lack of program fit. The data are quantitatively summarized into the themes and underlying categories in Figures 1-3, which show how families responded to each program question. Because families could provide more than one reason for not participating in a program, percentages add up to more than 100%.

The inaccessibility of programs was highlighted by study participants sharing that they had no knowledge of programs, did not know where they were or how to participate in them, or that a program was not offered in their neighbourhood. Most study participants had never heard of the Good Food Box program (Figure 3), but community kitchens and community gardens were also unfamiliar to many families (Figures 1 and 2). Families also indicated they lacked the knowledge of program details needed to participate. For example, one study participant said: "I have heard of the Good Food Box program, but I don't know how to get into it." (Respondent (R) 1343) Another said: "I don't know of any community gardens around here." (R1060) Other barriers to access identified less frequently were program fees, not fitting eligibility criteria, and programs being at capacity. For example, one respondent said in response to the community garden question: "We tried to get involved last summer but it was full; all the plots were taken." (R1437)

The lack of program fit was illustrated by respondents indicating how characteristics intrinsic to programs did not accommodate or encourage participation in them. For example, many families spoke about how community gardens and kitchens were incompatible

with their busy lives. This was illustrated in the following quote: “I’m hardly at home. I work five days per week, spend one day for shopping and chores, and have one day to spend with my daughter.” (R1408) Numerous families simply stated that they did not have time to participate.

Programs were also not compatible with the study participants because of health issues. For example, in response to the community garden question, one respondent shared: “I’m in too much pain with arthritis to plant even flowers.” (R1484)

Others spoke about program characteristics that made them unappealing and about how programs were misaligned with their interests. They spoke of disliking sharing communal space to garden or cook, having to work alongside strangers or people they did not get along with, and not being interested in gardening or cooking activities. In relation to the Good Food Box program, participants spoke about their dislike of not being able to make their own food choices.

Families did not appear to relate these programs to their food needs, as they rarely expressed a lack of food need driving their non-participation. Rather, they spoke of a lack of need for what the program offered, for example, communal cooking space, communal gardening space, or pre-selected fruit and vegetables. One respondent expressed this as: “I cook in my home; I like my meals at home.” (R1184) Another respondent, in response to the Good Food Box question, said: “We don’t need programs and advice, we need money. We buy for ourselves what we find necessary.” (R1234)

DISCUSSION

This study uniquely offers insight into the uptake of community food programs in high-poverty neighbourhoods in Toronto, highlighting low rates of participation and two major reasons for non-participation: programs were not accessible and they did not fit with the needs, interests and lives of our study participants. These findings suggest that these types of programs may not be effective ways to reach low-income families.

Our findings add support to the concerns about community food program accessibility and impact raised in other studies.^{5,13,17-19,28} Limitations are rooted in the current ad hoc nature of community food programs, in that they tend to be small-scale programs arising at the community level, with limited and/or short-term funding and reliance on volunteers, and thus are inherently limited in capacity.¹⁷ Participants in our study could have lacked information about programs operating in their neighbourhoods because program operators were constrained in ability to conduct outreach or expand programs to accommodate more participation. It is also possible that program recruitment and outreach methods used at the time of the study were ineffective or targeted toward a different group.

We cannot know whether families who reported a lack of knowledge or absence of programs in their neighbourhoods would participate if these barriers were overcome. There was no relationship between proximity to community kitchen and community garden programs and program participation, suggesting that distance from programs was not a driver of participation. Importantly, we observed that these programs did not resonate with many families in our sample, as indicated by responses that fell into the “lack of fit” theme. This raises a question about what can be gained by program expansion. When we examined the ratios of families partici-

pating in programs to those who described how a program did not fit for them, we observed that for every family participating, there were 12 who expressed that a community garden would not work for them, 9 who expressed that a community kitchen would not work for them, and 9 who expressed that the Good Food Box program would not work for them. Based on these numbers, we could surmise that if all families in the sample had information and a program available, no more than 10% would participate, though this could be an underestimate if other reasons not expressed were underlying the “Not accessible” theme (see below).

These findings highlight the importance of designing programs to match the needs and interests of low-income, food-insecure populations, while taking into account the demands facing these households as they struggle to manage scarce resources,²⁰ plus childcare, single parenting, chronic health conditions, and employment. It is important to recognize that over half of food-insecure households in Canada are reliant on wages and almost half of food-insecure families are led by single parents (authors’ calculation from ref. 1). With the growing interest in community garden, community kitchen, and Good Food Box programs across Canada, we would caution against assumptions about relevance of these programs to food-insecure individuals and families. While these programs aim to offer an alternative to charitable food assistance – something that was equally rejected by families in our study population²⁹ – these findings highlight that community food programming may not be an accessible or efficient way for these families to meet their food needs.

This study captured perspectives on community food programs among a large sample of food-insecure families, allowing us to characterize the full breadth of reasons for non-participation and reach saturation in our study population (i.e., no new reasons were emerging by the end of the analysis). However, the short answers provided by participants may not be their only reasons for not participating; in-depth interviews would have provided richer detail and could have resulted in different quantitative balance of reasons for not participating. For example, it is possible that stating a lack of information about programs was an easy response for families to give, but with greater probing, other issues could have been raised. Future in-depth studies on who is reached and not reached by community-based programming are needed to fully understand the impact of these efforts. Another limitation of the findings of this study is that the experiences of families in this study population may be place-specific, reflecting neighbourhood characteristics and organizations running community food programs in Toronto. Having in-depth data on the nature of programs operating in the area and current outreach activities would have provided important contextual information by which to evaluate study participants’ responses. Interestingly, a study of a small, purposive sample of food-insecure, low-income households in Quebec City³⁰ found that among the households who did not participate in any kind of community food program (including food banks), the reasons for non-participation were consistent with the themes that emerged from this study: accessibility and information barriers and a disconnect of need and interest with what the programs offered.

This study stimulates consideration of program reach, accessibility, efficiency, and equality, for programs aimed at increasing food access for low-income families, and importantly highlights the difficulty for public health practitioners to meaningfully

address issues of household food insecurity in their communities. Options available for Canadians facing food shortages lie exclusively at the community level: charitable food assistance and community food programs. The limited potential of the former to mitigate food insecurity has been underscored numerous times,²⁹ but similar limitations of community food programs have been highlighted,^{5,17,30} and were reflected in the responses given by participants in this study. In light of the scale and gravity of household food insecurity in Canada, there is an urgent need for public policy to address the underlying issue of poverty.

REFERENCES

- Office of Nutrition Policy and Promotion. Summary Data Tables on Household Food Insecurity in Canada in 2007-2008. Ottawa, ON: Health Canada, 2010.
- Kirkpatrick SI, Tarasuk V. Food insecurity is associated with nutrient inadequacies among Canadian adults and adolescents. *J Nutr* 2008;138(3):604-12.
- Kirkpatrick SI, McIntyre L, Potestio ML. Child hunger and long-term adverse consequences for health. *Arch Pediatr Adolesc Med* 2010;164(8):754-62.
- Chronic Disease Prevention Alliance of Canada. Food Security in Canada – A Leadership Opportunity Towards Health Promotion and Reduction in Chronic Disease. Ottawa: CDPAC, 2007. Available at: <http://www.cdpac.ca/media.php?mid=362> (Accessed July 18, 2012).
- Power E. Individual and household food insecurity in Canada: Position of Dietitians of Canada. *Can J Diet Pract Res* 2005;66(1):43-46.
- Public Health Agency of Canada. Canadian Best Practices Portal: Food Security. Ottawa: PHAC, 2012. Available at: <http://66.240.150.14/topic/determinants/20/page/1> (Accessed July 18, 2012).
- Ontario Public Health Association Food Security Working Group. A Systematic Approach to Community Food Security: A Role for Public Health. Toronto, ON: OPHA, 2002. Available at: http://www.opha.on.ca/our_voice/ppres/papers/2002-01_pp.pdf (Accessed July 18, 2012).
- Provincial Health Services Authority. A Seat at the Table: Resource Guide for Local Governments to Promote Food Secure Communities. Vancouver, BC: PHSA, 2008. Available at: <http://www.phsa.ca/HealthProfessionals/Population-Public-Health/Food-Security/default.htm> (Accessed July 18, 2012).
- Public Health Services NHCHC. City of Hamilton 2011 Food Access Guide. Hamilton, ON: City of Hamilton, 2011. Available at: <http://www.hamilton.ca/NR/rdonlyres/E0B57AC2-63E0-4145-A777-615E80E9B63F/0/FoodAccessGuide20102011.pdf> (Accessed July 18, 2012).
- Hasdell R. Thinking Outside of the Breadbox: A "how-to" handbook for food security programming in Community Health Centres. Toronto: GTA Community Health Centres Food Security Network, 2011. Available at: http://www.cahc.ca/?page_id=95&did=55 (Accessed July 18, 2012).
- EatRight Ontario. Food Choices When Money is Tight. Toronto: Dietitians of Canada, 2011. Available at: <http://www.eatrightontario.ca/en/Articles/Budget/Food-choices-when-money-is-tight---Budget-friendly.aspx> (Accessed on July 18, 2012).
- Brownlee M, Cammer A. Assessing the Good Food Box. Saskatoon, SK: University of Saskatchewan, 2004. Available at: http://www.chep.org/gfb/Assessing_the_GFB_Project.pdf (Accessed on July 18, 2012).
- Toronto Community Foundation. Community Food Animators Project: 2005 Summary Report. Toronto: City of Toronto, 2005.
- Armstrong D. A survey of community gardens in upstate New York: Implications for health promotion and community development. *Health Place* 2000;6(4):319-27.
- Engler-Stringer R, Berenbaum S. Exploring food security with collective kitchens participants in three Canadian cities. *Qual Health Res* 2007;17(1):75-84.
- Fano TJ, Tyminski SM, Flynn MA. Evaluation of a collective kitchens program: Using the Population Health Promotion Model. *Can J Diet Pract Res* 2004;65(2):72-80.
- Tarasuk V. A critical examination of community-based responses to household food insecurity in Canada. *Health Educ Behav* 2001;28(4):487-99.
- Wakefield S, Yeudall F, Taron C, Reynolds J, Skinner A. Growing urban health: Community gardening in South-East Toronto. *Health Promot Int* 2007;22(2):92-101.
- Provincial Health Services Authority. Perspectives on Community-Based Food Security Projects: A Discussion Paper. Vancouver: PHSA, 2006. Available at: <http://www.phsa.ca/NR/rdonlyres/C72FCE36-9DCD-4A9C-B001-8635509D26C0/0/PerspectivesonCommunityBasedFoodSecurityProjectsDiscussionPaper.pdf> (Accessed on July 18, 2012).
- Dachner N, Ricciuto L, Kirkpatrick SI, Tarasuk V. Food purchasing and food insecurity among low-income families in Toronto. *Can J Diet Pract Res* 2010;71(3):126.
- Kirkpatrick SI, Tarasuk V. Food insecurity and participation in community food programs among low-income Toronto families. *Can J Public Health* 2009;100(2):135-39.
- Kirkpatrick SI, Tarasuk V. Assessing the relevance of neighbourhood characteristics to the household food security of low-income Toronto families. *Public Health Nutr* 2010;13(7):1139-48.
- Kirkpatrick SI, Tarasuk V. Housing circumstances are associated with household food access among low-income urban families. *J Urban Health-Bull NY Acad Med* 2011;88(2):284-96.
- Office of Nutrition Policy and Promotion. Income-related Household Food Insecurity in Canada. Ottawa: Health Canada, 2007. Available at: http://www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/income_food_sec-sec_alim-eng.php (Accessed on July 18, 2012).
- FoodShare. Good Food Box: Fresh Produce Delivered to Your Community (2011 Brochure). Toronto: FoodShare, 2011. Available at: <http://www.foodshare.net/goodfoodbox01.htm> (Accessed on July 18, 2012).
- Elo S, Kyngas H. The qualitative content analysis process. *J Adv Nurs* 2008;62(1):107-15.
- Toronto Social Development Finance & Administration. Profile of Low Income in the City of Toronto. Toronto: City of Toronto, 2011. http://www.toronto.ca/demographics/pdf/poverty_profile_2010.pdf (Accessed on July 18, 2012).
- Edible Strategies Enterprises Ltd. The Good Food Box Story: The Sustainability Challenge. Vancouver: Centre for Sustainable Community Development at Simon Fraser University, 2006.
- Loopstra R, Tarasuk V. The relationship between food banks and household food insecurity among low income Toronto families. *Can Public Policy* 2012;38(4):479-514.
- Hamelin A-M, Mercier C, Bédard A. Needs for food security from the standpoint of Canadian households participating and not participating in community food programmes. *Int J Consumer Studies* 2011;35(1):58-68.

Received: July 19, 2012
Accepted: November 23, 2012

RÉSUMÉ

OBJECTIF : La reconnaissance croissante du problème de l'insécurité alimentaire des ménages au Canada amène les praticiens de la santé publique à chercher des moyens efficaces d'améliorer la situation dans leur communauté. Les jardins communautaires, les cuisines collectives et les boîtes de vivres peuvent offrir des aliments nutritifs à un coût comparativement faible, mais on n'a pas évalué le recours à ces programmes, ni la façon dont ils sont perçus, dans les populations exposées à l'insécurité alimentaire. Une étude antérieure avait constaté la faible participation à de tels programmes pour 485 familles vivant dans un quartier très pauvre de Toronto; nous avons cherché à comprendre les raisons de cette non-participation.

MÉTHODE : Un an après l'étude de base, nous avons interviewé 371 familles une deuxième fois pour leur demander les raisons de leur refus de participer aux programmes de jardins communautaires, de cuisines collectives ou de boîtes d'aliments sains. Nous avons analysé le contenu de leurs réponses par induction.

RÉSULTATS : Au suivi, seulement 12 familles avaient participé à un jardin communautaire, 16 à une cuisine collective et 4 à un programme de boîtes d'aliments sains. Les raisons de la non-participation ont été regroupées sous deux thèmes. Premièrement, les familles nous ont dit que les programmes n'étaient pas accessibles parce qu'elles ne savaient pas comment ni où y participer, ou parce que ces programmes n'étaient pas offerts dans leur quartier. Deuxièmement, les programmes étaient mal adaptés aux familles, car ils ne tenaient pas compte de leurs horaires chargés, de leurs intérêts ou de leurs besoins.

CONCLUSION : Cette étude présente une perspective unique de la participation des familles exposées à l'insécurité alimentaire aux programmes alimentaires communautaires; nous montrons que ces programmes peuvent ne pas être des options efficaces pour améliorer l'accès de ces familles aux aliments.

MOTS CLÉS : sécurité alimentaire; faible revenu; pauvreté; Canada; santé publique