# Motivations and Barriers to Home-based Edible Gardening Working Paper, House Lab

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#### Abstract

Urban home-based edible gardens hold the potential to significantly contribute to sustainable food systems. This article examines the motivations and barriers associated with home-based edible gardening through in-depth interviews with growers and non-growers to explore how the potential of such gardens can be met. The seven motivating themes identified through the interviews were related to personal benefits, with little mention of broader-scale factors related to the sustainability of the food system. Lack of time was the most common barrier. To achieve the potential of home-based edible gardens, efforts should focus on personal benefits, while addressing key barriers.

#### Introduction

As North American cities expanded over the last century, much of the land previously used for agriculture was transformed into urban spaces (Auch and Laingen 2015). With the loss of peri-urban farmland and increasing globalization of the broader food system, recent attention has been given to reconnecting city dwellers with a locally-produced, sustainable food supply (Muhlke 2010; Colasanti et al. 2012). Urban agriculture holds the potential to contribute to sustainable food systems, by reducing food insecurity, positively contributing to residents' well-being, fostering strong communities, and improving the ecological functioning of cities (Blake and Cloutier-Fisher 2009; McClintock and Cooper 2009; Taylor and Lovell 2014).

The literature has long-focused on community gardens as a major component of North American urban agriculture (Armstrong 2000; Saldovar-Tanaka and Krasny 2004). While there are approximately 18,000 community gardens in the US and Canada (Kortright and Wakefield 2011), Taylor and Lovell's (2012) study of Chicago found significantly more edible garden space in residential yards than in community gardens. Additionally, Ghosh's (2014) multineighborhood study in New Zealand and Australia highlighted the significant role home gardens need to play in order to create locally sustainable fruit and vegetable production.

Home-based edible gardening is the domestic production of food on the household's property, tended by only one household, and usually occurring in the backyard (Kortright and Wakefield 2011). Such gardens typically consist of fruits and vegetables grown in the ground, portable containers, and roof gardens. There is a lack of literature examining home-based edible gardens in North America (Zainuddin and Mercer 2014), which has been attributed to their informal nature (Gray et al. 2014), lack of visibility due to their common backyard

location, and a cultural bias towards production of goods and services sold rather than those consumed by households (Taylor and Lovell 2014). As a result, many questions still exist regarding households' motivations to engage in edible gardening, barriers to starting and maintaining a garden, and strategies to reduce barriers so that the potential of home gardens can be met.

This article focuses on the motivations and barriers associated with home-based edible gardening experienced by residents with and without edible gardens. Using in-depth interviews, we explored residents' decisions associated with tending an edible garden, including reasons it was abandoned, in order to understand residents' experiences related to edible gardens. The study area is located in the City of Mississauga, in southern Ontario (Canada). The following sections examine research exploring residential gardening, describe our methods and results, and discuss the implications of our results in light of efforts to increase urban agriculture as part of a sustainable food system.

#### Residential yards and edible gardens

This study draws on recent research examining residential yard characteristics, participation in general gardening activity, and home-based edible gardening. A growing literature focuses on residential yards from an urban ecosystems perspective beacuse of the significant extent of residential land use in most cities (Cooke et al. 2012). Recent research has explored residents' landscaping preferences (Larsen and Harlan 2006; Larson et al. 2009), spatial patterns of yard features (Henderson et al. 1998; Zagorski et al. 2004; Daniels and

Kirkpatrick 2006), and factors influencing yard management practice (Nassauer et al. 2009; Larson et al. 2010; Harris et al 2013).

Household characteristics are typically related to residents' level of participation in yard work, including gender and age of residents, cultural background, level of gardening experience, socioeconomic status, and personal attitudes (Yakibu et. al 2008; Kendal et. al, 2010). Additionally, residents with higher incomes are more likely to make larger lawn care expenditures (Zhou et al. 2009), with wealth and education-level being the best predictors of water and chemical inputs in residential yards (Robbins et al. 2001; Zhou et al. 2008; Zhou et al. 2009). Women are generally more likely to participate in gardening around the home (Bhatti and Church 2000), while Loram et al. (2011) found the length of residency in one's house influences the extent of yard work residents engage in; activity-levels peaking in mid-length residencies (15 to 20 years) in the UK. Finally, participation in yard work is most common for those aged 45 to 69 (Bhatti 2006).

Recent research has also explored the underlying motivations for general residential gardening or yard work, emphasizing the way individuals' express their identity through these activities. In this literature, the garden (or yard) has been framed as a space for religious practice, meditation, socialization, and/or cultural identity expression (Mazumdar and Mazumdar 2012), with the act of gardening often related to the making and meaning of home (Bhatti 2006). Discussions have focused on gardening in relation to escapism, ownership and identity, connectedness to nature, social relationships, duty of caring, and health (Freeman et al. 2012). Zagorski et al. (2004) found Australian gardeners were motivated by the pleasure of working in the garden, attachment to romance and its creation, and/or devotion to habitat preservation. Gardens are often seen as sites of resistance to aging (Bhatti and Church 2000), as

participants seek to maintain physical activeness, with gardening activities evolving with different life stages (Freeman et al. 2012).

Finally, a limited but growing literature has examined home-based edible gardens with emphasis on the amount of land area currently under production and the potential to meet fruit and vegetable dietary needs through home gardens (Kremer and DeLiberty 2011; Taylor and Lovell 2012; Ghosh 2014); the role of businesses or non-profit organizations in creating and maintaining home-based edible gardens (Newman 2008; Naylor 2012; Gray et al. 2014; Wekerlea and Classens 2015); and the ecosystem services provided by such gardens (Calvet-Nir et al. 2012).

A study based on several Toronto neighbourhoods proposed a typology of home-based edible gardens including the following categories: cook's garden, teaching garden, environmental garden, hobby garden and aesthetic garden (Kortright and Wakefield 2011), with each serving a different purpose with its own set of characteristics. Similar to participating in community gardens and other types of residential yard work, home-based edible gardening can provide participants with physical and mental health benefits, serve as an expression of identity and ownership, support social interaction through the sharing of food with one's neighbours, facilitate connections with nature, and create wider awareness and support for ecological values (Gaynor 2006; Kortright and Wakefield 2011; Freeman et al. 2012; Gray et al. 2012).

Additionally, edible gardens have the potential to help households save money on their grocery bill, eat more fresh produce, and reduce their carbon footprint (Hall 2011; Kortright and Wakefield 2011; Taylor and Lovell 2015).

While many tangible and intangible benefits are possible, there are many start-up costs associated with edible gardens. Garden plots often take a few seasons of work before the soil is

productive enough to yield a substantial amount of food (Beck and Quigley 2001), and even established gardens require time, money, and knowledge to be productive (Brown and Carter 2003; Newman 2008; Kortright and Wakefield 2011). How the potential benefits and costs motivate and create barriers for residents is the focus of this study.

### Methodology

## Study area

The study area is comprised of four neighbourhoods in the City of Mississauga (Ontario, Canada; Figure 1). The city's population, approximately 700,000 people, is relatively diverse along a number of socio-demographic dimensions. Fifty-three percent of residents were born outside of Canada and less than half of residents' Mother tongue is English or French (Canada's two official languages), with English the only language representing the Mother tongue of more than 6% of the population (Statistics Canada 2011).

Each of the four study neighborhoods is defined by two contiguous Statistics Canada census dissemination areas, representing between 200 and 500 households (Figure 1; Table 1). The neighborhoods were selected for having at least 80% of households living in on-the-ground homes (i.e. detached, semi-detached and/or row homes) ensuring that most households have access to a yard. The neighborhoods were also selected to represent a range of incomes (either the 20th or 80th percentile of the region's average household income) and construction ages (at least 80% of houses built either before or after 1970), as we believed these variables likely impact residents' activities and neighborhood norms related to yard use, including tending an edible garden.

The first older construction neighborhood, Mineola, has a relatively high average household income (138,103 CAD), with property size typically double the average size found in the other three neighborhoods. Lakeview is the other older neighborhood, but is occupied by households whose average income is in the region's 20th percentile (66,447 CAD). Both older neighborhoods are dominated by fully detached homes built in the 1940s and 1950s. The first newer development neighborhood, Meadowvale, has an average household income of 152,765 CAD. Just over half of the dwellings are semi-detached houses, with most structures built in the 1990s and 2000s. The fourth neighborhood, Rathwood, has a mix of housing types (fully detached, semi-detached, row houses) built in the 1970s and 1980s that are occupied by households with relatively low average income (63,520 CAD). Rathwood differs from the other three neighborhoods as more than 50% of households are renters and properties are the smallest.

#### Resident interviews

This analysis draws on in-depth interviews with residents from the four study neighborhoods. As part of a larger project, 1,352 surveys were mailed to all households living in on-the-ground homes in the neighborhoods during the summer of 2011. The survey posed a range of questions about residential landscaping, including basic questions about edible garden presence and characteristics. The survey also asked if residents would be willing to participate in follow-up interviews that are the basis of this article. By soliciting interview participants through a broader survey, not all interviewees had an edible garden. This selection approach enabled us to explore experiences of edible gardeners, as well as those who have abandoned or never tended one, which allowed us to better identify challenges or barriers to participation.

Of the 580 survey respondents (43% response rate), 113 volunteered to participate in an interview. Potential participants were contacted up to three times in an attempt to schedule an interview. Interviews occurred at a time convenient for the participant, including evenings and week-ends, in the interviewee's yard, which facilitated questions about particular features. The interviews were semi-structured, with open-ended questions focused on a number of landscaping and yard work topics, including growing fruits and vegetables. Specifically, participants were asked why they did or did not have edible gardens, challenges and benefits of edible gardens, and sources of information supporting their edible gardening activity (where applicable).

All interviews were conducted by the same person for consistency and then recorded and transcribed by a second person using NVivo 9. A coding scheme– focused on motivations or benefits of having an edible garden and barriers or limitations of edible gardening– was iteratively developed in conjunction with the interviewer. A third person then reviewed all transcripts and coding to identify transcription errors or coding problems.

#### **Results**

Forty-two residents were interviewed across the four neighborhoods (Table 1), representing 37% of the people who volunteered. Those who were not interviewed included residents who were never successfully contacted to schedule an interview and those for whom there was no convenient time to hold an interview. Additionally, since a large number of potential participants came from the higher income neighborhoods (Mineola and Meadowvale), not all were contacted in an effort to have interviewees evenly representing the four

neighborhoods. In the end, however, the lower income neighborhoods (Lakeview and Rathwood) still had fewer participants.

Based on their written survey responses, interview participants were generally reflective of people living in each neighborhood (Table 1), although the relatively small sample should not be considered fully representative. Overall the 42 participants were a diverse group along a number of dimensions. For example, at least one interviewee identified with each of the following ethnocultural groups: South Asian, East or Southeast Asian, European, British Isles, and Latin American. Highest educational attainment ranged from no high school diploma to Maters or Doctoral degrees, with a university degree the most common education-level. The average household size was 2.5, with 10 interviewees' households including seniors and 11 having children under 18. The most common household income bracket was 60,000 to 89,000 CAD, but interviewees represented households with incomes less than 30,000 CAD through to households with an income over 180,000 CAD. Thirty-eight interview participants own their house, while four were renters. The median length of residency was 10 to 14 years, with a range of less than five years to more than 20.

Twenty-four of the 42 interview participants had an edible garden in their yard at the time of the interview. Surprisingly, an additional 15 interviewees had previously tended a home-based edible garden, while only three participants never had an edible garden at their house. Of the participants who currently have an edible garden, 12 grew edible plants in the ground, nine grew them both in the ground and in contains, and three only had portable containers. In-the-ground and container gardens were located in the backyard in all but one case. Most gardens included multiple types of plants, although tomatoes were present in 17 of

the 24 gardens. Zucchini and peppers were the next most common vegetables, while berries, rhubarb and apples were the most commonly grown fruits.

The interviewees were generally seasoned gardeners. The median length tending an active edible garden was eleven years, with only six of the 24 current gardeners having their garden less than five years. Nine current growers had increased their garden's size in the last five years, while five had reduced the area allocated for edible plants. Thirteen of the 24 current growers indicated they wanted to grow more fruits and vegetables in the future, but there was no relationship between those who wanted to increase production and recent size changes.

#### **Motivations**

Those with edible gardens all identified at least one motivating reason for having it, and most growers identified several factors that were coded under multiple themes. Not surprisingly, nine of the 18 non-growers did not identify any motivating reason, focusing more on barriers or lack of interest when edible gardens were discussed during the interviews. In all, seven broad themes were identified as the motivation or reason residents currently had, and in some cases previously had, edible gardens (Figure 2). The most common motivations given by current gardeners were that they grew produce to use in their cooking and working in the garden was an enjoyable hobby for them. For those who identified the cooking garden theme, it was the convenience of fresh produce or ability to grown hard to find ingredients, rather than a cost savings that was motivating them: "Convenience you know, you want a tomato you just go to your backyard and grab one, just that sort of thing" said one participant. Another interviewee stated,

"I don't know if it reduced my grocery bill or not. I do sort of plan my meals...
like once you have vegetables we definitely eat them."

Similarly, those who tend an edible garden as a hobby were also not motivated by cost savings: "It's not a cost thing by any stretch of the imagination but it's just kind of fun to do it I guess, and yeah they usually taste really fresh and it's easy to do." Reducing food costs by growing your own food was actually only identified by two interviewees, with one of those respondents focused on the high costs of buying tomatoes versus growing your own. The two most common motivating factors for growers were also the most common factors identified by non-growers; the seven non-gardeners who identified edible gardening as a good source of food for cooking or as an enjoyable hobby had previously tended their own home-based edible garden.

The third most common motivating theme identified by growers was that their own food was better than store bought produce. This was usually framed in terms of taste or freshness, and often included discussions about knowing the methods used to grown their own. In response to why she grew tomatoes, one interviewee said,

"The organic vegetable factor. We know what we're growing. We try to buy organic seeds if we can... I can keep them [tomatoes] throughout the season, I can freeze them and use them and I know they're from my garden."

Alternatively, differences in freshness, taste, and/or production methods of home grown products were mentioned by only one non-grower, suggesting that this was not a benefit seen by non-growers.

Four interviewees stated that they had an edible garden because it was a family tradition. An equal number also indicated that they grew fruits or vegetables to teach their own children where food comes from, helping them engage with nature and/or hoping to spark an interest in gardening and growing one's own food. As one interviewee said,

"I find that it's great for the kids. The kids love to see where the food comes from.

And I find that they'll eat it easier if they picked it themselves. My youngest wouldn't touch a raspberry until she picked it from her own bush."

Finally, four current growers and one non-grower stated that an edible garden was already present in their yard when they moved to the house; those still tending the garden also identified other reasons for having an edible garden, suggesting they likely would have started one anyway.

#### **Barriers**

Thirteen themes were identified when discussing the barriers or challenges of having an edible garden in one's yard (Figure 3). Two growers and three non-growers were not coded as including any barriers in their interviews, with the growers not able to identify a barrier or challenge and the non-growers stating they just were not interested in growing edible plants.

Among interviewees with and without edible gardens the most frequently identified barrier was time. In some cases this was framed as the reason the interviewee never began growing fruits and vegetables: "My mother had a very large vegetable garden and I know they're extremely time consuming and I have a full time job, plus the dogs, plus my life ... the garden that I have, and my friends, and I run, and there's just no more time." It was also given as reason for the

limited size of current gardens: "[the garden has] decreased actually. I used to do a lot more....you just get busy", said one participant.

Among those currently tending a garden, attraction of unwanted animals, shading, lack of knowledge and space concerns were the next most commonly identified challenges and barriers. These factors were actually identified at higher rates among the 24 growers than the 18 non-growers. Eleven gardeners noted that their edible plants attracted unwanted racoons, rodents, or insects into their yard. This is highlighted by one growers assessment: "The main concern is again the animals because... for the fruit trees if you don't pick the fruit or if they're overripe they fall on the ground and it attracts a lot of animals, which we already have a lot of problems with in this area because we're near a ravine."

Shading from trees and other vegetation was identified by 10 current gardeners and six participants without edible gardens, with trees often the reason edible plants were not worth the effort:

"last year we didn't get a really good crop and I think it is mainly because of the shade. Vegetables really need a lot of sun.... but am I willing to cut down the tree [to help the garden]? No."

Structures or vegetation on neighboring properties that created shade was coded as a separate theme, because it represented a barrier that the interviewee did not control. As this participant noted, even if they want to remove the shade producing feature, they are not able to:

"the neighbour's [cedar trees]. When they were small I'd beg them to cut them down... but they wouldn't do it. That was conflicting with the garden."

However, if on-property and off-property sources of shade are combined, 12 growers and eight non-growers identified one or both as a barrier, making it as frequently mentioned as time constraints. Shading and space themes were also often related, as shady locations further limit possible spaces where edible gardens can be located: "Oh yeah, one of the reasons why we can't grow a decent garden is because of the trees and because of the fact I don't want to garden in the middle of the property."

The second most common barrier, identified by seven non-growers, was crop failure. While six growers talked about crop failure, this represents a lower rate since more growers were interviewed. In many cases, previous attempts to grow edible gardens were limited to one or two very common plants and/ or were the first attempt by the residents to grow edible plants. When these efforts failed, all edible gardening stopped. On interviewees expressed this pattern in response to the question "do you currently grow any fruits or vegetables":

"No. We tried a tomato plant. It didn't do well."

While lack of knowledge was not frequently cited by non-growers, it is likely some of these crop failures could have been avoided if the resident was better versed in edible gardening. Interestingly, residents who currently have edible gardens were more likely to identify a lack of knowledge as a barrier. This was often phrased in terms of the time-consuming nature of knowledge acquisition; using trial and error methods when knowledge was hard to come by; and uncertainty about where to acquire knowledge.

Nearly in opposition to crop failure was the theme of overproduction: "I think the amount that grew was too much to handle and I don't really need all those fruits and vegetables," said a former grower. This theme was identified by three current and four former

growers, with several interviewees indicating that because the entire crop would ripen at the same time, even when they gave extra items to friends and neighbors some of their crop still went to waste. As one interviewee said,

"I mean you can only eat so many zucchinis. And I'm hanging over the fence yelling at my neighbour 'Hey, you want some more zucchini' and she goes 'No, No!'"

Over-production was also often mentioned in relation to cheaper or more convenient alternatives being abundant during the same time that the home gardens were at their height of production, reducing the need to grow one's own:

"and at the time of course, because it's in season, all that stuff is cheap in the stores. So it's like you know, it doesn't really make it worthwhile."

Another barrier that was identified at a higher rate by non-growers was age-related limitations: "My husband can hardly walk and I can't dig so that's what made us stop," said one participant. The growers who did speak about aging, typically talked about reducing the time or size of their edible gardening activities:

"I'm getting a little older and I just don't have the stamina...When you're bending over for hours trying to pull weeds out, it gets to you after a while. So I would say that I don't have as many plants, and I don't spend as much time as I used to, mainly because I'm getting older..."

Related to ageing as a barrier, physical limitations were identified by two non-growers in the context of not having the help they would require: "I'd consider [an edible garden] but I have,

you know the issue with bending over for myself because of my eyes and so unless somebody else in the house became really interested then I wouldn't consider it".

Outside of shading, few environmental factors were identified as barriers. Soil quality was identified by two non-growers, while climate and seasonal weather patterns (i.e. extended periods of drought or unusually cold or rainy summers) were identified by six current growers and one non-growers: "this year [there] has been lot of rain, so I didn't start much," said one resident talking about the current size of their edible garden. Another interviewee said,

"at least we're getting [peaches] this year. When you get the ice storm in like the beginning of April, it kills all the buds so we didn't get peaches last year."

#### **Discussion**

The results of the study identified a variety of motivations and barriers residents associate with edible gardening. Interestingly, motivating factors or benefits of edible gardens were identified by many non-growers, while barriers were present for nearly all growers, suggesting many of the interviewees experience both the benefits and challenges of home-based edible gardening. Additionally, most interviewees identified more than one theme, indicating that decisions related to tending an edible garden occur within a broad spectrum of personal circumstances and preferences that are related to a variety of benefits and costs.

Using Kortright and Wakefield's (2011) typology, cooking gardens and hobby gardens were the most common types of edible gardens in our study area, followed by teaching gardens. Interestingly, all of the themes associated with motivations for tending a home-based edible

garden were expressed in relation to household characteristics or personal attitudes, and did not explicitly connect with broader environmental, sustainability, or political rationales that are often the basis of calls for increasing urban agriculture. The motivating themes closest to broader environmental and sustainability arguments were that home grown produce was better than the store bought alternative, in terms of taste and growing methods, and the importance of having a garden to teach children about where food comes from. However, interviewees spoke about these motivations in personal terms; they were not framed in the context of changing the overall environmental impact or sustainability of the mainstream food system. This suggests that efforts to encourage more home-based edible gardening should focus on personal or small-scale benefits rather than promoting such gardens as a way of altering existing systems or creating new ones.

Cost reduction was not a common motivation or benefits of having an edible garden, with a larger number of interviewees indicating that the higher cost of home grown food was actually a barrier. These results may reflect the generally high level of affluence among interviewees, with food costs possibly less of a concern than in other studies, or that homebased edible gardens incur higher monetary costs than community gardens; the greater isolation may translate to less sharing of materials and knowledge, raising start-up costs and lowering production. More research should examine the relative monetary and non-monetary costs of home-based edible gardens, and ways different supports could reduce those costs. For example, would neighborhood collectives that provide shared equipment reduce a meaningful barrier to participation?

Understanding other barriers keeping non-growers from tending an edible garden and current growers from expanding their activities can also help develop interventions that support

more home-based edible gardening. However, the common barriers identified through the interviews—lack of time, too much shading, lack of space—may be difficult to overcome.

Organizations in several cities (Newman 2008; Naylor 2012) already provide services to start and maintain edible gardens in residents' yards, but these services often cost money; while reducing the time barrier they may raise monetary ones.

The issues of shading and space could partially be addressed by altering the location of edible gardens, which are typically found only in back yards. Space constraints have previous been found to influence presence of edible gardens and vegetation conditions in residential yards (Pham et al. 2012; Conway and Brannen 2014). Increasing openness to also locating edible gardens in front yards may expand suitable sites for growing sun-loving fruits and vegetables. A shift to a more visible location may also increase neighbor interactions for home-based edible gardeners, providing another level of support and knowledge. However, this will require a change in norms governing appropriate residential landscaping, with utilitarian uses like edible gardens usually limited to back yards (Seddon 1997). One approach to facilitate a shift in norms is to start visible edible gardens in volunteers' front yards, as previous research has suggested that yards types are spatially clustered, with non-traditional alternates spreading to neighbors through informal processes (Henderson et al. 1998).

Finally, a high number of participants had stopped edible gardening, often identifying previous crop failures a barrier. In this way tending an edible garden appears to differ from other residential gardening activity in three inter-related ways. First, a higher level of on-going maintenance is required as compared to perennial gardens, shrubs and trees. Second, an edible garden is considered worth maintaining only if acceptable levels of food production are met, rather than basic plant survival (and possibly flowering or aesthetic goals) associated with other

types of vegetation. Third, the social pressure to maintain front yards, whether residents want to or not (Robbins 2007), does not exist for the utilitarian, back yard edible garden. Thus, when edible garden maintenance becomes a burden or the garden does not produce the right amount of food it is relatively easy to abandon.

#### **Conclusion**

This study found residents experienced a variety of motivations and barriers related to home-based edible gardening. Primary motivations were to have fruits and vegetables for cooking and growing as an enjoyable pastime, while lack of time was a key barrier. These themes were typically expressed in personal ways, not explicitly related to broader ideas associated with sustainable food systems. As a result, efforts to build more sustainable urban food systems through home-based edible gardening should focus on personal benefits—rather than emphasis large-scale food systems changes— and ways to mitigate time and physical space barriers.

There is a clear need for location-specific information and on-going support. Recruiting experienced residents to create visible edible gardens may encourage more informal sharing of knowledge. To further facilitate knowledge sharing and address time and physical limitations, projects that paired homeowners with volunteer gardeners could be initiated, expanding on the senior-volunteer gardener project documented by Blake and Cloutier-Fisher (2009). While interviewees represented a relatively diverse group, future research should explore larger populations located in a variety of regions to better understand the ways different household circumstances and environments influence motivations and barriers.

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Table 1 Basic characteristics of the four study area neighborhoods and interviewees

Neighborhood	Median year house built	Average property size (m <sup>2</sup> )	Census Data (2006)			Interviews (2011)			
			Median household income (CAD)	Univ. degree (%)	Home Ownership (%)	Number	Median household income (CAD)	Univ. degree (%)	Home ownership (%)
Mineola	1954	1,202	138,103	28	92	17	90,000 - 119,000	44	100
Lakeview	1954	596	66,447	13	95	7	60,000 - 89,000	14	100
Meadowvale	2001	535	152,765	40	90	14	90,000 - 119,000	31	85
Rathwood	1978	226	63,520	16	44	4	60,000 - 89,000	50	50

# **Figure Captions**

Figure 1 The four study neighborhoods in the City of Mississauga, Ontario, Canada

**Figure 2** Motivating reasons for having a home-based edible garden identified by participants with and without a garden

**Figure 3** Barrier to having a home-based edible garden identified by participants with and without a garden





