

# **Hamilton Community Gardener Survey Results**

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## **Background**

In September and October 2019, staff within the Food Strategy and Community Health Worker Program undertook a point in time, cross-sectional garden use survey developed and designed in SimpleSurvey. The purpose of the survey was to describe community garden participants within the City of Hamilton and their perceived benefits from participating in a community garden. Specifically, there were three objectives for the survey:

- i. To describe community garden participants in Hamilton and how frequently they engage with a community garden.
- ii. To document perceived health benefits, including physical, mental and social, for users of community gardens.
- iii. To outline potential ways to increase the health benefits of community gardens.

The survey was made available to participants in two ways. An online link was distributed through community garden coordinators for whom we had email addresses or who were members of the Hamilton Community Garden Network listserv. Coordinators were asked to share the survey link with members of their garden. In addition, trained dietetic students administered the survey in person at four, larger, community garden sites across the City on tablets.

Participants had the option of entering a draw to win a \$50 Canadian Tire gift card as an incentive for their participation.

The following results are based on 119 respondents from 22 gardens located across the City of Hamilton.

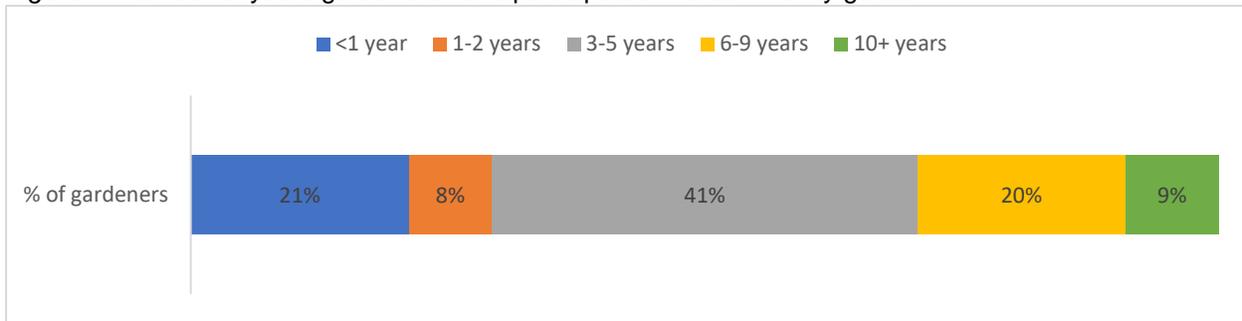
### **Objective 1: Community Garden Participants**

Respondents were fairly equally distributed across all age groups, with the exception of those aged 18-24, which were 1.7% of respondents. The largest portion of respondents were 65 years or older (30%). Forty-four percent of respondents were from 2-person households, and 13% were from single person households.

Respondents tended to be higher income. Forty-five percent of people who provided income data had a household income of over \$80,000 per year before taxes, 26% had an income between \$40,000 and \$80,000 and 24% had an annual income of \$40,000 or less.

Respondents were generally experienced gardeners, having participated in a community garden an average of 4.4 years, ranging from less than a year to 27 years. Figure 1 provides more information on the number of years respondents have participated in a community garden.

Figure 1: Number of years gardeners have participated in a community garden



On average, 82% of participants visit their garden 3 times or less each week, with 60% spending an hour or less each time they are in the garden.

Most respondents (75%) live within a 10-minute commute to their garden. Fifty-five percent of respondents used active travel (walking or biking) to get to their community garden, however for those aged 65+, only 30% of respondents used active transportation. There may be issues accessing a garden for lower income<sup>1</sup> individuals with only 12% of lower income respondents having a garden within a 5-minute commute of home compared to 38% of higher income and 41% of moderate income gardeners. No higher income individuals traveled over 15 minutes to get to their garden compared to 20% lower income and 17% moderate income individuals.

As expected, it appears that gardeners who have a shorter commute to their community garden use it more often. For example, 31% of moderate users<sup>2</sup> and 30% of high users have a garden within a 5-minute commute of their home compared to 9% of low users. Conversely, 27% of low users travel over 15 minutes to get to their community garden compared to 9% of moderate and no high users.

These results indicate that there may be issues accessing a garden for individuals and families who are lower income. Not only do they form the smallest percentage of community garden users, but they need to travel further to get to a community garden than higher income individuals. However, what also needs to be considered is that it is possible that younger and/or lower income respondents do not have the same time to put into a community garden as higher income or older individuals. Considering other models of community gardening besides traditional plot-based models such as collective gardening may address issues of geographical access and time required for lower income and younger individuals interested in community gardening.

## **Objective 2: Perceived health benefits, including physical, mental and social**

Respondents articulated several perceived benefits of participating in a community garden. When asked if they agreed, somewhat agreed or strongly agreed with statements related to the healthy eating and physical activity benefits of community gardens, most respondents agreed

<sup>1</sup> Lower income was defined as respondents with a yearly household income before tax of \$40,000 or less. Moderate income was defined as \$40,001-\$80,000. Higher income was defined as more than \$80,000.

<sup>2</sup> Moderate users were defined as respondents who visit their garden 1-3 times per week, high users visit 4 or more times per week and low users visit their garden less than once per week.

with these statements (Figure 2). Similarly, when asked about the social and mental benefits associated with community gardens, respondents overwhelmingly agreed with these statements (Figure 3).

Figure 2: Percent of gardeners who agreed with statements related to the healthy eating and physical activity benefits of community gardens.

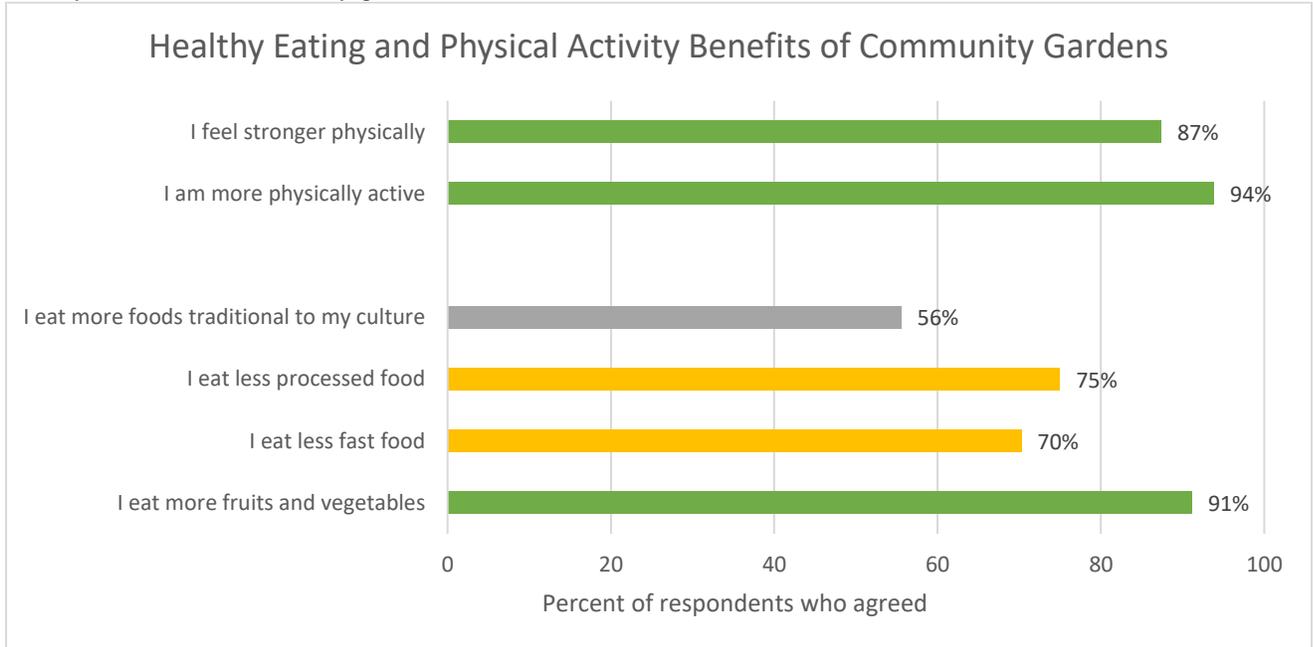
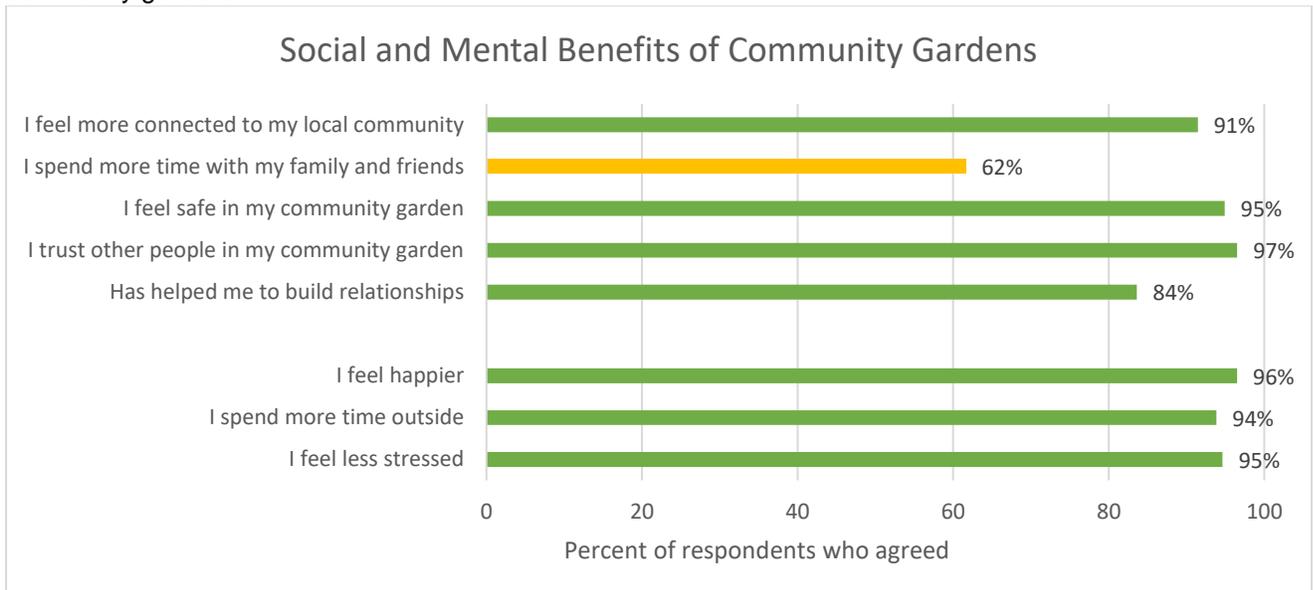


Figure 3: Percent of gardeners who agreed with statements related to the social and mental benefits of community gardens.

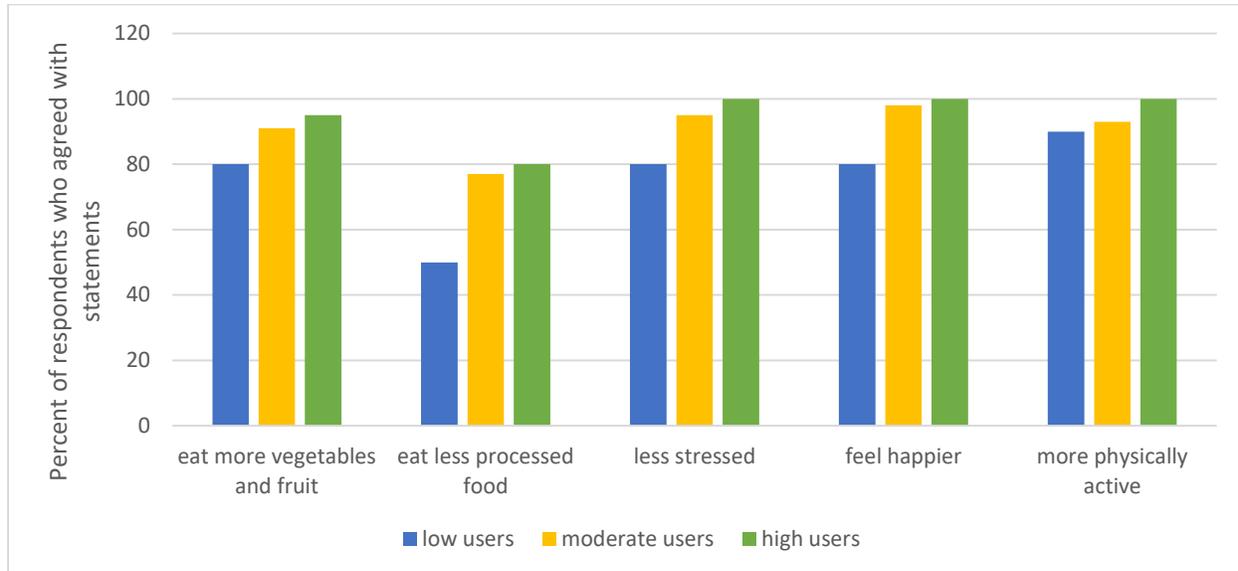


It appears gardeners who visit their community garden more frequently, show increased perceived benefits compared to those who visit less often. These differences appear to be related to healthy eating and mental health more so than for physical activity. Additionally, the

largest differences appear to be between low and moderate users, with fewer differences between moderate and high users (Figure 4).

Respondents 65 years and older generally indicated equivalent or increased benefits compared to all respondents. Differences in perceived benefits were less pronounced when comparing income levels. However, 100% of low income gardeners indicated that they ate more vegetables and fruit because of participating in a community garden.

*Figure 4: Percent of gardeners who agree with statements related to the benefits of community gardens, based on level of use.*



### **Objective 3: Potential ways to increase the health benefits of community gardens**

As part of the survey, we asked people:

- How could your community garden do better at improving your physical or mental health?
- How do you think coming to this garden has made your life different (better or worse)?
- How could your community garden help you to get to know other gardeners better?
- Do you have any additional thoughts or comments that you'd like to share about your community garden experience?

When discussing the benefits of their community garden experience, answers to these questions tended to group around themes of:

- i. Relationships (e.g. sense of community, socializing, meeting new people, family)
- ii. Growing Food (e.g. being self-sufficient, fresher/quality, organic)
- iii. Connection to nature (e.g. getting outside, limited access to nature at home, mental benefits associated with being in nature)
- iv. Mental benefits (e.g. stress-reduction, spiritual, therapeutic)
- v. Physical benefits (e.g. dietary, physical activity)

The following quotes represent the main themes of the open-ended responses.

-  “This garden improves my life. It is my exercise (including getting to and from the garden, and working in it), my time for relaxation and reflection to recharge after stressful work, my connection to my family heritage of growing food, and a source of healthy fresh produce for my household. It is also a source of pride for me.”
-  “The community garden is as close to nature that I can access from my home without a car. The garden is also a place where I have been self-directed to learn the process of nature, planting and caring for a seed I've planted. This is good for human health on all levels.”
-  “Enjoyment and exercise while gardening. The ability to have fresh produce I have grown myself. I enjoy sharing the produce with others. I spend time in Gage Park with my dog before or after gardening. I have met and enjoy the company of other gardeners.
-  “It made me crave the freshest produce, and quality food is more important to me now. I try to support local more than ever now.”
-  “Sharing in the growing experience with other gardens is amazing. It makes me walk in the neighbourhood. More active. Meeting new people.”
-  “My friend and I have been spending time in the garden rather than drinking or playing games. We also met new members of the community. My partner and I had a steady supply of vegetables this year, certainly worth more than the money, time and effort put into the garden.”

When discussing where improvements could be made, there were three main themes that arose from the responses, with a few additional comments related to security to reduce theft and improved communication between gardeners and coordinators.

- i. Events, both educational and social
- ii. Structural changes (e.g. picnic tables, benches, washroom facilities)
- iii. More community gardens

The following quotes represent the main themes of the open-ended responses.

-  “There are very few organized group activities at the garden, and most of them are about getting gardeners out for days of weeding that have a reprimanding tone to gardeners. Perhaps gardeners would be more encouraged to care for their plots and the overall space if there were more pure(ly) positive opportunities - seed exchanges, planting days, BBQs, etc.”
-  “I would suggest that more shared, potluck meals, made from the gardens fruits would be a good way to cultivate better connections. I attended one such event about a month ago and I did feel more of a connection growing and enjoyed the wholesome event.”
-  “Picnic Benches would be really great”
-  “I would like to see More community gardens in Hamilton so members could walk to their gardens”

“I hope we have more community gardens so that other people can enjoy the gardening too. In our community garden there is always waiting list.”

While almost all comments were positive, there were a few negative comments related to crop damage, other gardeners not tending their plot and the leadership not being transparent or responsive to membership concerns.

### **Strengths**

This survey had some strengths. The first is that it combined in person and online data collection to maximize responses. Respondents represented over 20% of community gardens located across the City. Respondents participated in a variety of community garden models including communal gardens, traditional plot-based gardens as well as donation gardens. The use of open-ended questions helped to validate closed-ended and Likert scale responses and allowed respondents to articulate benefits and challenges in their own words.

### **Limitations**

There are a few limitations that should be noted. The first is that this sample may not be a representative sample. Only 8% of community gardeners answered the survey, as a result, this may not accurately represent the experience of all gardeners. In addition, gardeners who participate at the over 30 CityHousing gardens across the City, were not represented in the data. Additionally, our results may be prone to nonresponse bias in that people who have more positive experiences or connections to their garden may have been more motivated to participate. As a result, responses could be skewed towards positive outcomes.

### **Conclusion**

The Hamilton community gardener survey highlighted several health benefits related to participation in a community garden, including improved diet, reduced stress, increased relationships and increased connectedness to the community. These benefits were greater for people who gardened more frequently.

To maximize the health benefits of community gardens, ensuring that community gardens are located within a 10-minute walk of people's home and assisting volunteer garden coordinators with communication and the coordination of social events, would help to increase these benefits. In addition, consideration should be given to organizing education events related to gardening as well as considering the structures available at each garden that might promote socializing such as benches and picnic tables. Considering other models of community gardening besides traditional plot-based models such as collective gardening may address issues of geographical access and time required for lower income and younger individuals interested in community gardening. These benefits can be realized and enhanced through leveraging existing, as well as new, community partnerships.

## Appendix 1: Hamilton Community Gardener Survey

1. What Community garden location do you currently use, or use most frequently?
2. What gender do you most identify with?
  - a. Male
  - b. Female
  - c. Transgender
  - d. Intersex
  - e. Other (if other, give opportunity to specify)
  - f. Prefer Not to Answer
3. How old are you (years)?
  - a. 18-24
  - b. 25-34
  - c. 35-44
  - d. 45-54
  - e. 55-64
  - f. 65+
4. How many people, including yourself, are in your household?
  - a. 1
  - b. 2
  - c. 3
  - d. 4
  - e. 5-6
  - f. 7-8
  - g. >8
5. What is your household's (yearly) total income before tax?
  - a. < \$10,000
  - b. \$10,000 - \$20,000
  - c. \$20,001 - \$40,000
  - d. \$40,001 - \$60,000
  - e. \$60,001 - \$80,000
  - f. >\$80,000
  - g. Don't know
  - h. Prefer Not to Answer
6. What are the first three characters of your home postal code?

### Community Garden Use:

7. How long have you been participating at a Community garden space?
  - a. \_\_\_\_\_ months or
  - b. \_\_\_\_\_ years
8. During the gardening season, on average, how often do you visit your Community garden space?
  - a. Daily
  - b. 4-5 times a week
  - c. 2-3 times a week
  - d. Once a week

- e. 2-3 times a month
  - f. Once a month
  - g. Less than once a month
9. On average, when you're at the Community garden, how much time do you spend there?
- a. Less than half an hour
  - b. 30 minutes to an hour
  - c. Up to two hours
  - d. More than two hours
10. How do you get to the Community garden?
- a. Walk
  - b. Bike
  - c. Public transportation
  - d. Carpool
  - e. Drive self
11. How long does it take you to get to the Community garden by your regular mode of transportation?
- a. Under 5 minutes
  - b. 5-10 minutes
  - c. 10-15 minutes
  - d. 15-20 minutes
  - e. More than 20 minutes
12. How do you think coming to this Community garden has made your life different (better or worse)?
13. Have you had any challenges accessing a local Community garden?
- a. No
  - b. Yes (if yes, what challenges have you experienced?)

**Community Garden Social benefits:**

14. When you're at the Community garden, how many people do you normally interact with?
- a. None
  - b. 1-2
  - c. 3-4
  - d. More than 5
15. What activities help you to talk or interact with other gardeners? (Check all that apply)
- a. When I tend to my plot
  - b. Communal work days
  - c. Communal areas at the garden (e.g. berry patch, herb garden, picnic table, children's garden)
  - d. Events at the garden
  - e. I don't interact with other gardeners
  - f. Other (if other, leave space for answering)

16. If your Community garden hosts events, how often do you attend? (e.g. communal work day, BBQ/Potluck, Educational event) (Check all that apply)
- a. One time per year
  - b. Two times per year
  - c. Three times per year
  - d. Four or more times per year
  - e. I attend all the events
  - f. My garden doesn't host events
  - g. I don't attend the events
17. What sort of relationships have you found with members of your Community garden? (Check all that apply)
- a. Acquaintances
  - b. Friendships
  - c. Close friendships
  - d. Garden mentors
  - e. Friendship with someone from an older or younger generation
  - f. Other (if other, leave space for answering)
  - g. I don't have relationships with other members
18. Please rate your agreement with the following statements:

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Somewhat Disagree</b>	<b>Somewhat Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
The Community garden has helped me build relationships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I trust the other gardeners at my Community garden	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel safe when I am at the garden (embed in question if they disagree at all, an option to explain)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Since starting to garden, I spend more time with my family and/or friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel more connected to my local community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. How could your Community garden help you to get to know other gardeners better?

**Community Garden Food and Body Benefits:**

20. Please rate your agreement with the following statements:

Because of working in the Community garden....

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Somewhat Disagree</b>	<b>Somewhat Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
I eat more fruits and vegetables	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I eat less fast food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I eat less processed food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I eat more foods that are traditional to my culture or family background	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am giving extra food to other people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I spend less money on food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more physically active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel stronger physically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel less stressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I spend more time outside	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel happier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21. How could your Community garden do better at improving your physical or mental health?

22. Do you have any additional thoughts or comments that you'd like to share about your community garden experience?

Appendix 2: Benefits of Community Gardens Infographic

