



June 26, 2015

Malden is Moving!: Food Access for Elders in Malden, MA

Report on Assessment Findings

Submitted to:



Health Resources in Action
Advancing Public Health and Medical Research

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INTRODUCTION

Malden is Moving!, a part of the Mass in Motion Program through the MA Department of Public Health, is coordinated by the City of Malden Health Department and its partners at the YWCA Malden. Malden is Moving! aims to “promote wellness with a particular focus on the importance of healthy eating and active living while providing residents with simple, practical, and cost effective ways to improve eating habits and move more at home, work, and in the community.”

Malden is Moving! identified healthy aging for Malden’s senior population (60+) as a priority, with a focus on access to and consumption of healthy, nutritious foods. Specifically, Malden is Moving! aimed to identify common barriers and facilitators, including built environment related factors, that seniors face while accessing healthy food. To understand the baseline characteristics of the nutritional habits and experiences of Malden’s seniors, Malden is Moving! engaged Health Resources in Action (HRiA), a non-profit public health consultancy organization, to develop, conduct, and report on a survey assessment of seniors. This assessment, led by the Mass in Motion Coordinator, and conducted by Malden high school youth leaders also trained by HRiA, aimed to gather critical data to inform future strategies to increase access to and consumption of healthy foods with a focus on the built environment, and also forge bonds between the community’s youth and senior population.

Over 200 surveys were completed, and this report includes a synthesis of the survey assessment results.

METHODS

Survey development

The development of the survey, entitled “*Malden Mass in Motion: Food Access Survey for Elders*” was a collaborative effort between HRiA, the YWCA Malden, and the MA Department of Public Health. The survey, which was 27 questions in length, covered the following topics: food consumption behavior, food preparation, food access, food security, neighborhood and community characteristics, and the demographic information of survey respondents. Questions were taken from the following validated surveys:

- Brookdale Demonstration Initiative in Healthy Urban Aging
- National Health and Nutrition Examination Survey (NHANES)
- FoodAPS National Household Food Acquisition and Purchase Survey Initial Interview for In-Person Interviews
- National Health and Aging Trends Study (NHATS)
- Behavioral Risk Factor Surveillance System (BRFSS)

Wherever possible, efforts were made to use the exact wording of the questions taken from the validated surveys. However, some questions were intentionally modified to address the local context of Malden. Such modifications were disclosed throughout the survey development process to the survey development team. If validated survey questions were not available on topics of interest, the aforementioned survey development team developed original questions.

The survey was open to seniors age 60 or older who lived in the city of Malden.

See the *Appendix* for a copy of the survey instrument.

Survey training

Twenty youth leaders in Malden were trained by HRiA staff to recruit survey participants, introduce the survey's purpose, answer questions that participants had, and ensure surveys were completed thoroughly. The survey was designed to be filled out individually by the senior survey respondents in writing. However, when linguistic, physical, or other challenges arose, youth leaders were trained to administer the survey verbally and record the individual responses on the survey document. Five youth provided on-the-spot translation into the following languages: Spanish, Portuguese, Cantonese, and Haitian Creole.

Survey administration

The survey was administered by 20 youth hired by the YWCA Malden between April 21 to May 19, 2015. Surveys were conducted at two dinners hosted by the YWCA Malden at the local senior center and senior housing complex during the week of April 20, 2015. In addition, surveys were conducted throughout Malden at various locations, including but not limited to churches, Bread of Life (a volunteer organization that serves free evening meals and provides other services to the hungry, homeless, needy, and isolated), and Dunkin Donuts (a coffee and donut chain). In addition, seniors were recruited through family members and other personal contacts. Seniors were recruited through convenience sampling, based on who was available, eligible, and willing at different sites to take the survey.

Twenty youth leaders participated in data collection, each with a goal of completing ten surveys. By the end of the survey period, 201 respondents completed the survey. While the survey was designed to be completed in writing by the senior survey respondents themselves, approximately 60% of surveys were administered verbally. This includes 27 surveys that were verbally translated into Spanish, Portuguese, Cantonese, and Haitian Creole.

Survey analysis

All surveys were entered into SurveyMonkey for the calculation of frequencies. Of the 201 surveys completed, no surveys were omitted. However, not all of the respondents answered each survey question; therefore, for the calculation of frequencies, non-answers were omitted.

Overall frequencies were calculated for all of the survey questions. To further analyze the data, cross-tabulations were conducted on all of the questions for the following variables: age, race, gender, and income. Also, cross-tabulations were conducted on a sampling of questions for the following variables: food stamps usage, residence type, and number of reported fruits and vegetable servings in the past day.

For cross tabulations, the following categories were collapsed or limited to the following to ensure large enough numbers for analysis:

- For race, categories were collapsed to White, Asian, or "other" (which includes African American/ Black, Hispanic/ Latino(a)/ Chicano(a), American Indian or Alaska Native, Pacific Islander, other, and two or more races);
- For income, categories were collapsed to less than \$15,000, between \$15,000-\$24,999, and \$25,000 or more; and
- For residence type, categories were limited to private residence, alone; private residence, with family; and senior housing due to the minimal responses in the other residence type categories.

In the tables for each analysis, double asterisks (**) denote when there are fewer than five responses for a question option. Additionally, 0.0% denotes when there are no responses for a question option.

Limitations

There are numerous limitations when considering the generalizability of the collected data. Because participants were recruited through convenience sampling and self-selected to participate in the survey, self-selection bias calls into question whether the findings are generalizable to the experiences of Malden's senior population overall. Those who might elect to participate may be more socially connected and aware of the Malden is Moving! initiative's efforts, and therefore have unique experiences compared to their peers who elect not to participate, for example. Or, those who have strong opinions may be more likely to participate.

Because the surveys were conducted both verbally and in written form, there could be inconsistencies in survey administration. For example, pilot testing was not extensively done to ensure that survey questions were easily readable out loud by youth. Therefore, survey participants who filled out their own survey in writing may have had a different experience completing the survey than those who verbally completed the survey.

Finally, due to limited funds, surveys were not translated into other languages aside from English. Therefore, because questions were translated verbally on the spot by youth leaders, there could be inconsistencies in the way questions were translated, leading to different interpretations of the questions, as compared to those who completed the survey in English.

FINDINGS

This report highlights findings from the survey analyses. In addition, the report is accompanied with a full data compilation for further exploration of findings.

Survey Participants

During the survey period, 201 seniors responded to the survey. All surveys were used in the final sample, as all were deemed to be adequately completed, and thus have usable results for analysis.

Table 1 outlines the demographic breakdown of the overall respondent population, and census data for Malden's senior population, when comparable data was available. Almost half of respondents (48.7%) were between the ages of 60-69, and over a third (37.7%) were between the ages of 70-79. Three in five respondents were female (60.5%), which is consistent with Malden's census data breakdown of 57.1% of females and 42.9% of males, ages 60 years and older.

For race/ ethnicity, one in two respondents categorized themselves as White/ Caucasian, with the next largest population identifying themselves as Asian (22.4%). Whites were underrepresented in the respondent population when compared to Malden's senior population ages 60 and over, with 71.3% of the population overall identifying as White, Non-Hispanic. Like the respondent population, Asians are the second largest category for race/ ethnicity (16.8%) according to Malden's census.

While almost half (42.2%) of respondents preferred not to report their household income range, of those that did respond, almost half (47.8%) reported their annual household income to be under \$15,000. This is almost double the percentage compared to Malden's overall population ages 65 and older, of which 26.4% reported an annual household income under \$15,000. This difference may be due to the fact that the sample is not representative of Malden's income distribution among seniors, and/or due to the fact that such a large percentage of people did not report their income range.

Finally, over one in three respondents (36.8%) live in a private residence, with one or more family

members, while almost one in four respondents(23.9%) lived alone in a private residence, and almost one in four (23.4%) were in senior housing.

Table 1: Demographics of respondent population

	Census	Sample	
Age	%	N	%
60-69 years		97	48.7%
70-79 years		75	37.7%
80+ years		27	13.6%
Gender	%	N	%
Male	42.9%	78	39.0%
Female	57.1%	121	60.5%
Other	NA	1	**
<i>*Source of Census data: U.S. Census Bureau, 2009-2013 5-Year American Community Survey</i>			
Race/ethnicity	%	N	%
White/Caucasian	71.3%	99	49.8%
African American/Black	7.5%	15	8.0%
Hispanic/Latino(a)/Chicano(a)	3.6%	18	9.0%
American Indian or Alaska Native	0.0%	2	**
Asian	16.8%	44	22.4%
Pacific Islander	0.0%	2	**
Other	1.1%	19	10.0%
Two or more races	0.5%	2	**
<i>*Source of Census data: U.S. Census Bureau, 2009-2013 5-Year American Community Survey</i>			
<i>Note: White, African American/ Black, American Indian or Native American, Asian, Native Hawaiian or Other Pacific Islander, and Other include individuals who identify with a single race; Hispanic or Latino includes individuals who identify as any race.</i>			
Annual household income from all sources	%	N	%
Less than \$10,000	10.1%	31	15.6%
Between \$10,000-\$14,999	16.3%	24	12.1%
Between \$15,000-\$19,999	11.5%	24	12.1%
Between \$20,000-\$24,999	8.9%	14	7.0%
Between \$25,000-\$34,999	13.6%	8	4.0%
\$35,000 or more	39.7%	14	7.0%
Prefer not to answer	NA	84	42.2%
<i>*Source of Census data: U.S. Census Bureau, 2009-2013 5-Year American Community Survey</i>			
<i>Note for Census data: Annual household income distribution is among households with householders 65 years and over in the past 12 months in Malden, whereas survey data also includes respondents ages 60-65.</i>			
Place of residence	%	N	%
Private residence, alone		48	23.9%
Private residence, with one or more family members		74	36.8%
A group home, board and care, or supervised housing		9	4.5%
Assisted Living Facility or Continuing Care Retirement Community		4	**
Nursing Home		2	**
Senior Housing		47	23.4%
Subsidized Housing		11	5.5%
Other		6	3.0%

Focus on Food Consumption Behavior

Fruit and vegetable consumption

From the sample population, the vast majority (89.1%) of respondents consumed fewer than five fruit and/or vegetable servings in the past day (*Table 2*). This finding was true across age, race, gender, food stamp enrollment, and residence type, with 80% or higher reporting consumption of fewer than five servings across all groups. The only exception to this trend was by income, where 71.1% of those who reported an income between \$15,000-\$24,999 reported consuming fewer than five servings. However, this could be due to the high percentage of those who did not report their household income.

Table 2: Total fruits and/or vegetables servings consumed in past day, for respondents overall

Total fruit and/or vegetable servings consumed in past day	n	%
Fewer than 5	179	89.1%
5 or more	22	10.9%

Difficulty of finding fruits and vegetables

One in three respondents (33.5%) reported that finding fruits and vegetables in their neighborhood was “extremely difficult” or “somewhat difficult.” Those that reported “not very difficult” or “not difficult at all” were almost evenly split, with one third of respondents for each (30.0% and 36.5%, respectively).

When broken out by age, the trends were similar, though those ages 70-79 years reported to have the most difficulty finding fruits and vegetables in their neighborhood (35.1%, compared to 26.8% of 60-69 year olds and 25.9% of 80+ year olds reporting “somewhat difficult” and a negligible percentage reporting “extremely difficult”).

Interestingly, when broken out by race, one in two respondents who were categorized under “Other” found it to be “extremely difficult” or “somewhat difficult” to find fruits and vegetables in their neighborhood, in comparison to one in four White and one in four Asian respondents.

By gender, almost 40% of males reported that it was “extremely difficult” or “somewhat difficult” to find fruits and vegetables in their neighborhood, compared to almost 30% of females. Those on food stamps reported a higher frequency of difficulty finding fruits and vegetables in their neighborhood (44.8%), when compared to those not on food stamps (23.1%). By income, 20% of those who made less than \$15,000 reported that it was “extremely difficult” to find fruits and vegetables. This sub-group had the highest “extremely difficult” response rate compared to all other sub-groups, and respondents overall.

Table 3: Level of difficulty of finding fruits and vegetables in neighborhood, by race/ethnicity, household income, and food stamp status

	White	Asian	Other	Less than \$15,000	Between \$15,000-\$24,999	\$25,000 or more	Prefer not to answer	On food stamps	Not on food stamps
Extremely difficult	5.1%	**	13.8%	20.0%	0.0%	**	**	11.5%	4.8%
Somewhat difficult	19.4%	25.0%	36.2%	20.0%	39.5%	**	26.5%	33.3%	18.3%
Not very difficult	29.6%	38.6%	24.1%	32.7%	26.3%	27.3%	31.3%	32.3%	27.9%
Not difficult at all	45.9%	29.5%	25.9%	27.3%	34.2%	50.0%	39.8%	22.9%	49.0%

Affordability of fruits and vegetables

Overall, 82.1% of respondents reported that fruits and vegetables were affordable in their neighborhood. When broken out by sub-group analysis, those ages 70-79 (77.4%), those categorized under “other” for race/ethnicity (77.5%), males (76.9%), those with a household income less than \$15,000 (74.6%), those on food stamps (77.3%), and those in senior housing (72.3%) least frequently reported that fruits and vegetables were very or somewhat affordable in their neighborhoods when compared to their counterparts, though the frequencies are still high overall.

Those whose race/ethnicity was categorized as “other,” and those whose household incomes are less than \$15,000, had the highest percentages of reporting that fruits and vegetables were “not at all affordable” (at 15.5% and 12.7%, respectively).

Table 4: Affordability of fruits and vegetables in neighborhood, by race/ ethnicity and by household income

	White	Asian	Other	Less than \$15,000	Between \$15,000-\$24,999	\$25,000 or more	Prefer not to answer
Very affordable	26.3%	34.1%	24.1%	18.2%	26.3%	40.9%	29.8%
Somewhat affordable	57.6%	50.0%	53.4%	56.4%	57.9%	40.9%	57.1%
Not affordable	16.2%	13.6%	**	12.7%	15.8%	**	10.7%
Not at all affordable	0.0%	**	15.5%	12.7%	0.0%	0.0%	**

Food preparation

The majority of respondents overall ate fewer than five meals that were prepared away from home (e.g. in restaurants, food stands, grocery stores, or vending machines) over the past seven days (82.2%). Approximately three out of four respondents or more reported this across all sub-group analyses. The sub-groups who were most likely to eat meals prepared at home were those who lived alone in private residences (91.3%) and those who ate five or more servings of fruits and vegetables in the past day (90.9%).

Table 5: Total prepared meals away from home consumed in past seven days, by residence type and reported fruits and vegetable servings in past day

	Private residence, alone	Private residence, with family	Senior Housing	Fewer than five or more servings	Five or more servings
Fewer than 5	91.3%	77.8%	73.9%	81.1%	90.9%
5 or more	**	22.2%	26.1%	18.9%	**

The reasons for buying prepared meals rather than cooking at home for residents overall, in rank order, include the following:

- It’s more convenient (34.0%)
- To socialize with family and friends (30.5%)
- It’s cheaper (22.5%)
- It tastes better (20.5%)
- It’s more nutritious (14.5%)
- Other (13%)

Food access

Among respondents overall, the most commonly cited primary store for food shopping was Stop and Shop (53%). This was true across age, race, gender, and income.

The cited reasons for shopping at the respondents' primary food store, in rank order, include:

- Low prices (55.7%)
- Close to home (50.7%)
- Variety of foods (general) (40.8%)
- Produce selection (25.9%)
- Meat department (15.9%)
- Variety of special foods (such as gluten free) (14.4%)
- Loyalty/ frequent shopper program (8.5%)
- Malden Senior Transportation provided (6.0%)
- Other (3.5%)

The reported means of transportation to overall respondents' primary food stores, in rank order, include the following:

- Drive own car (36.2%)
- Someone else drives me (33.2%)
- Walk (27.6%)
- Bus or train (18.6%)
- Malden Senior Transportation (11.1%)
- Use someone else's car (5.5%)
- Taxi (4.5%)
- Ride bicycle (2.5%)
- Other (2.5%)

Interestingly, when analyzed by race/ ethnicity, there were notable frequency differences in modes of transportation to food stores. For example, White respondents were more than twice as likely to drive their own car and half as likely to walk (46.5% and 17.2%, respectively), when compared to Asian respondents (20.9% and 44.2%, respectively). Similarly, by income, respondents with household incomes less than \$15,000 had observable differences, when compared to those of higher income brackets. See Table 6.

Table 6: Means of transportation to primary food store, by race/ethnicity and by household income

Means of transportation	White	Asian	Other	Less than \$15,000	Between \$15,000-\$24,999	\$25,000 or more	Prefer not to answer
Drive own car	46.5%	20.9%	29.8%	16.7%	50.0%	63.6%	34.9%
Use someone else's car	6.1%	**	**	0.0%	13.2%	**	**
Someone else drives me	25.3%	30.2%	49.1%	31.5%	34.2%	22.7%	36.1%
Walk	17.2%	44.2%	33.3%	33.3%	21.1%	**	30.1%
Bus or train	7.1%	18.6%	38.6%	25.9%	23.7%	**	14.5%
Taxi	**	**	**	**	**	0.0%	**
Ride bicycle	0.0%	**	**	0.0%	**	0.0%	**
Malden Senior Transportation	12.1%	**	10.5%	14.8%	**	**	14.5%
Other	**	**	0.0%	**	**	0.0%	0.0%

The top five other types of stores where money was spent on food in the past 30 days, by respondents overall, include the following (in rank order):

- Supermarket (45.8%)
- Dollar store (25.4%)
- Wholesale club (e.g. B.J.'s, Costco, or Sam's Club) (22.9%)
- Small grocery store (18.9%)
- Farmer's Market or farm stand (14.9%).

Slightly more than 1 in 3 (35.7%) of respondents overall reported that they always have the kinds of food they want to eat. Asians (45.5%), females (43.3%), those within the household income bracket of \$15,000-\$24,999 (42.1%), those not on food stamps (42.7%), and those living alone in a private residence (44.7%), were more likely to report this with a 10% or greater frequency difference compared to some or all of their comparison categories.

All respondent sub-groups reported the top reason for not having the kinds of food desired as not having enough money for food, with the exception of those 80+ years of age and Asians (both of whom most commonly reported that the kinds of food they wanted were unavailable), those with incomes of \$25,000 or more (who most commonly reported not having enough time for shopping), and those who reported consuming five or more servings of fruits and/or vegetables in the past day (who most commonly reported being on a special diet).

Food security

Almost one in four of respondents overall reported being concerned about having enough food to eat in the past 30 days (22.4%), and ate less because there was not enough money to buy food in the past 12 months (22.9%). One in five respondents went hungry and did not eat because they were unable to get out to buy food in the past 12 months (19.4%). Over one in three went to a community program or senior center to eat prepared meals in the past month (36.8%).

Respondents categorized as "other" race/ ethnicity were twice as likely to be concerned about having enough food to eat in the past 30 days and report going hungry and not eating because they were unable to get out to buy food in the past 12 months, compared to their white counterparts. Asians and those of "other" race/ ethnicity were also more likely to go to a community program or senior center to eat prepared meals in the past month (almost one in two, compared to one in four White respondents).

Males were also more likely to report being concerned about having enough food to eat in the past 30 days, more likely to go hungry and not eat because they were unable to get out to buy food in the past 12 months, and go to a community program or senior center to eat prepared meals in the past month, when compared to their female counterparts.

Those on food stamps were two to almost three times as likely to report concerns of food security across all measures, when compared to their counterparts not on food stamps. Almost one in two respondents on food stamps reported going to a community program or senior center to eat prepared meals in the past month as well.

Surprisingly, there was not a noticeable variance between the different income brackets on the majority of food security measures, with the exception of going to a community program or senior center to eat prepared meals. For this last measure, one in two respondents with household incomes less than \$15,000 reported this, compared to 27.3% of those with household incomes of \$25,000 or more.

Table 7: Food security, by race/ ethnicity, gender, and by food stamp status

	White	Asian	Other race/ ethnicity	Male	Female	On food stamps	Not on food stamps
Concerned about having enough food to eat in past 30 days	17.2%	22.7%	31.0%	29.5%	18.2%	33.0%	12.5%
Ate less because not enough money to buy food in past 12 months	22.2%	20.5%	25.9%	24.4%	22.3%	34.0%	12.5%
Hungry and did not eat because unable to get out to buy food in past 12 months	13.1%	22.7%	27.6%	25.6%	15.7%	26.8%	12.5%
Gone to a community program or senior center to eat prepared meals in past month	26.3%	45.5%	48.3%	44.9%	32.2%	46.4%	27.9%

Utilization of state and federal programs

Almost one in two respondents overall (48.3%) utilize food stamps, and one in five utilize other food assistance, such as Meals-on-Wheels or Mystic Valley Elder Services (21.3%) or gas, electricity, or other energy assistance (19.4%).

Almost three in five respondents categorized as “other” race/ ethnicity utilize food stamps (58.6%), though rates are high among the White and Asian population as well (41.4% and 50.0%, respectively)

As expected, those with incomes less than \$15,000 had the highest reported utilization of state and federal programs, when compared to other income brackets.

Table 8: Utilization of state and federal programs, by race/ ethnicity and household income

Type of assistance	White	Asian	Other	Less than \$15,000	Between \$15,000-\$24,999	\$25,000 or more	Prefer not to answer
Food stamps (also called the Supplemental Nutrition Assistance Program, or SNAP)	41.4%	50.0%	58.6%	58.2%	36.8%	27.3%	52.4%
Mobil Food Market and Farmers Market Vouchers	8.2%	16.3%	19.3%	22.6%	**	**	12.0%
Other food assistance, such as Meals-on-Wheels or Mystic Valley Elder Services	24.5%	11.6%	23.2%	30.8%	**	**	22.6%
Gas, electricity, or other energy assistance	13.4%	23.3%	26.8%	21.6%	21.6%	**	17.9%

Neighborhood environment assets

Over nine in ten respondents overall reported being very satisfied or somewhat satisfied with their neighborhood. This remained true across all sub-group analyses.

The majority of respondents overall reported that the following neighborhood environmental assets were available:

- A park, playground, or open space (87.4%)
- Grocery and/or other food stores (83.8%)
- Restaurants (74.1%)
- A bank or credit union (74.7%)

- A police station (65.3%)
- A public library (68.5%)
- A pharmacy (79.8%)
- A post office (71.2%)
- Continuous paved sidewalks for walking (80%)
- Curb cuts (63.5%)
- Crossable intersections (80.7%)
- Lighting at night (83.7%)

One in two respondents, or fewer, reported the following neighborhood environmental assets as being available, with the remainder reporting that these assets were unavailable or that they didn't know if they were available:

- A medical clinic or health service (50.3%)
- A cash checking outlet (currency exchange) (43.5%)
- Benches to sit (50.3%)

Across age sub-groups, respondents between the ages of 60-69 were more likely to report access to a bank or credit union, a check cashing outlet, a police station, a pharmacy, a post office, and continuous paved sidewalks for walking than those ages 80+.

Those categorized as "other" race/ ethnicity were the least likely to report the availability of restaurants (62.1%), compared to 86.0% of Asians and 76.0% of Whites. Interestingly, 53.4% of those categorized as "other" reported having a police station, compared to 74.4% of Asians and 68.4% of Whites. Asians were almost twice as likely to report curb cuts when compared to Whites and those categorized as "other"; this could be due to the fact that Asians reported walking as the most common mode of transportation to food stores.

By income, those with household incomes under \$15,000 were more likely to report access to a check cashing outlet. Those in the highest income bracket (\$25,000 or more) reported the least access to a public library (45.5%), compared to 66.7% of those with incomes under \$15,000, and 68.4% of those with incomes between \$15,000-\$24,999. Nine out of ten of those in the highest income bracket reported access to continuous paved sidewalks for walking, compared to three out of four in the other income categories.

Neighborhood environment challenges

Three out of four respondents overall reported uneven sidewalks (77.1%) and cracks in the sidewalks (73.7%) as challenges to the neighborhood environment. Over one in two (57%) reported litter or trash in the streets or in empty lots as concerns. Under half of respondents reported concerns about excessive noise (41.6%) or abandoned or vacant buildings (27.4%). These response patterns remained similar across age and race/ ethnicity.

By gender, two out of three males reported challenges of litter or trash in the street or in empty lots (67.1%), when compared to 49.6% of females.

By income, 87.8% of those with household incomes less than \$15,000 reported challenges of uneven sidewalks, compared to 63.2% of those with incomes between \$15,000-\$24,999 and 72.7% of those with incomes of \$25,000 or more.

Utilization of City of Malden free shuttle

Three out of four respondents overall have never used the shuttle service in the past 30 days. Of those that used the shuttle:

- 15.5% used the shuttle 1-2 times
- 7.5% used the shuttle 3-5 times
- 4.0% used the shuttle 6 or more times

8.6% of those categorized as "other" race/ ethnicity utilized the shuttle 6 or more times, compared to less than five respondents each among Whites and Asians, and were the most likely to report utilizing the shuttle at all in the past 30 days. Similarly, those with household incomes less than \$15,000 were most likely to utilize the shuttle in the past 30 days, compared to other income brackets.

Three in five respondents stated that they do not use the shuttle services because they can get to the store on their own, and almost two out of three stated that they do not use the shuttle service because they have other ways to get where they need to go.

Table 9: Utilization of City of Malden free shuttle, by race/ ethnicity and household income

Frequency of use for food shopping in past 30 days	White	Asian	Other	Between \$15,000-\$24,999	\$25,000 or more	Prefer not to answer
I've never used the shuttle service	76.5%	72.7%	67.2%	76.3%	81.0%	76.2%
1-2 times	12.2%	20.5%	17.2%	13.2%	**	10.7%
3-5 times	9.2%	**	**	**	**	7.1%
6 or more times	**	**	8.6%	0.0%	0.0%	6.0%

Overall, 72.1% of respondents are aware of the free shuttle services for seniors. However, one in two respondents reported "don't know" on the following measures:

- It is easy to schedule a shuttle when I need it;
- I usually schedule shuttle services for myself;
- I get picked up and dropped off in the places that are convenient to me;
- The shuttle services take me where I need to go;
- The shuttle is comfortable to ride in;
- The shuttle drivers are helpful; and
- The shuttle services are in a language that I understand.

This indicates that while respondents are aware of the existence of free shuttle services, they do not have detailed or first-hand information about how to use the shuttle.

CONCLUSION

Overall, the assessment demonstrates that there are opportunities for improving nutrition and food access among seniors in Malden. With 9 out of ten seniors reporting consumption of fewer than five fruit and/ or vegetable servings in the past day, and one in three reporting that finding fruits and vegetables are difficult, targeted efforts can be made to improve these measures. Particular attention should be paid towards populations that experienced the greatest challenges to healthy habits.

On a positive note, while challenges in the neighborhood were identified, respondents were overwhelmingly positive about their satisfaction with their neighborhood across all sub-groups. Furthermore, high utilization of community programs and senior centers for meals, particularly among

sub-groups that reported the greatest food access challenges (e.g. non-White respondents, males, those with incomes below \$15,000, and those on food stamps), provide potential for outreach efforts to promote health and opportunities to increase access to more nutritious options.

Future assessments might qualitatively probe specific challenges and barriers that prevent seniors from consuming greater quantities of fruits and vegetables, issues of access, and food security concerns. Furthermore, engaging seniors in the development of strategies may be useful to ensure interventions and health promotion efforts address both the practical and desired needs of seniors to promote health.

APPENDIX: SURVEY INSTRUMENT

MALDEN IS MOVING

Food Access Survey for Elders

Thank you for participating in the Malden is Moving Food Access Survey for Elders! Your input is critical to help us understand what opportunities and challenges you face in accessing healthy foods.

The survey has 27 questions, and it is lengthy, so we appreciate your time in completing the entire survey. The survey will not ask for your name or any identifying information, and all results will be reported as general themes and trends. No individual responses will be shared.

The results of the survey will be used to determine next steps in creating healthier food environments for seniors in the community.

Thank you for helping us make Malden a healthier place to live!

Food Consumption Behavior

The questions in this section are about nutrition.

1. **Thinking about nutrition, how many total servings of fruits and/or vegetables did you eat yesterday?** A serving would equal one medium apple, a handful of broccoli, or a cup of carrots.

_____ serving(s)

2. **How difficult is it for you to find fresh fruits and vegetables in your neighborhood?** [Please circle one]

- a. Extremely difficult
- b. Somewhat difficult
- c. Not very difficult
- d. Not difficult at all

3. **Are the fruits and vegetables you are able to find affordable?** [Please circle one]

- a. Very affordable
- b. Somewhat affordable
- c. Not affordable
- d. Not at all affordable

Food Preparation

The questions in this section are about how you prepare your food.

- 4. During the past 7 days, how many meals did you get that were prepared away from home?**
(e.g. in places such as restaurants, fast food places, food stands, grocery stores, or from vending machines)

_____ meal(s)

- 5. What are reasons why you might buy food prepared away from home instead of cooking at home?** [Please circle all that apply]

- a. It's cheaper
- b. It's more nutritious
- c. It tastes better
- d. It's more convenient
- e. To socialize with family and friends
- f. Other: _____

- 6. During the past 7 days, how many times did you or someone else in your family, a Person Care Attendant (PCA), or a Home Health Aide (HHA) cook food for dinner or supper at home?** Do not include heating up leftovers.

_____ times

Food access

The next questions are about where you get your food.

- 7. Where do you do most of your food shopping?** [Please specify store name]

8. What kind of store is that? [Please circle one]

- a. Supermarket
- b. Small grocery store
- c. Convenience store (e.g. 7-11 or MiniMart)
- d. Discount or big box store (e.g. Target or Walmart)
- e. Wholesale club (e.g. B.J.'s, Costco, or Sam's Club)
- f. Other: _____

9. What are your main reasons for shopping at this store? [Please circle all that apply]

- a. Low prices
- b. Produce selection
- c. Meat department
- d. Variety of foods (general)
- e. Variety of special foods (such as gluten free)
- f. Close to home
- g. Loyalty/ frequent shopper program
- h. Malden Senior Transportation provided
- i. Other: _____

10. How do you usually get to the store where you do most of your food shopping? [Please circle all that apply]

- a. Drive own car
- b. Use someone else's car
- c. Someone else drives me
- d. Walk
- e. Bus or train
- f. Taxi
- g. Ride bicycle
- h. Malden Senior Transportation
- i. Other: _____

11. Besides the store named in Question 7, what other type(s) of store(s) did you spend money on food at during the past 30 days? [Please circle all that apply]

- a. Supermarket
- b. Small grocery store
- c. Convenience store (e.g. 7-11 or MiniMart)
- d. Discount or big box store (e.g. Target or Walmart)
- e. Wholesale club (e.g. B.J.'s, Costco, or Sam's Club)
- f. Dollar store
- g. Bakeries
- h. Meat or fish markets
- i. Produce stores or vegetable stands
- j. Farmer's Market or farm stand
- k. Other: _____
- l. I only shop at the store named in question 7.

12. Below are some reasons why people don't always have the kinds of food they want. Please circle the reasons why YOU don't always have the kinds of food you want to eat. [Please mark all that apply]

- a. Not enough money for food
- b. Kinds of food I want are not available
- c. Not enough time for shopping or cooking
- d. Too hard to get to the store
- e. On a special diet
- f. Not applicable – I always have the kinds of food I want to eat

Food Security

The questions in this section are about concerns you have about getting food.

13. In the past 30 days, have you been concerned about having enough food to eat? [Please circle one]

- a. Yes
- b. No

14. In the past 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food? [Please circle one]

- a. Yes
- b. No

15. In the past 12 months, were you hungry, but did not eat because you weren't able to get out to buy food? [Please circle one]

- a. Yes
- b. No

16. There are several state and federal programs that help people in need. In the last year, did you receive help from any of these programs? [Please circle yes or no for each of the following assistance programs]

Food stamps (also called the Supplemental Nutrition Assistance Program, or SNAP)	Yes	No
Mobil Food Market and Farmers Market Vouchers	Yes	No
Other food assistance, such as Meals-on-Wheels or Mystic Valley Elder Services	Yes	No
Gas, electricity, or other energy assistance?	Yes	No

17. In the past month, have you gone to a community program or senior center to eat prepared meals? [Please circle one]

- a. Yes
- b. No

Neighborhood and Community Characteristics

The next questions are about your neighborhood, or the area around where you live. It is the general area around your house where you might do routine things, such as visiting with friends or neighbors, taking a walk, shopping, or going to a park.

18. Overall, how satisfied are you with your neighborhood? [Please circle one]

- a. Very satisfied
- b. Somewhat satisfied
- c. Somewhat dissatisfied
- d. Very dissatisfied

19. Do you have any of the following in your neighborhood? [Please circle yes, no, or don't know for each of the following]

A park, playground, or open space	Yes	No	Don't know
Grocery and/or other food stores	Yes	No	Don't know
Restaurants	Yes	No	Don't know
A medical clinic or health service	Yes	No	Don't know
A bank or credit union	Yes	No	Don't know
A check cashing outlet (currency exchange)	Yes	No	Don't know
A police station	Yes	No	Don't know
Litter or trash in the streets or in empty lots	Yes	No	Don't know
A public library	Yes	No	Don't know
A pharmacy	Yes	No	Don't know
A post office	Yes	No	Don't know
Abandoned or vacant buildings	Yes	No	Don't know

20. Does your neighborhood generally have the following? [Please circle yes, no, or don't know for each of the following]

Continuous paved sidewalks for walking?	Yes	No	Don't know
Cracks in the sidewalk?	Yes	No	Don't know
Uneven sidewalks?	Yes	No	Don't know
Openings in the sidewalk so you can wheel a cart through (curb cuts)?	Yes	No	Don't know
Crossable intersections?	Yes	No	Don't know
Lighting at night?	Yes	No	Don't know
Excessive (extra) noise from traffic, car alarms, trains, etc.?	Yes	No	Don't know
Benches to sit?	Yes	No	Don't know

21. In the past 30 days, how many times have you used the free shuttle services that the City of Malden provides to seniors for food shopping? [Please circle one]

- a. I've never used the shuttle service
- b. 1-2 times
- c. 3-5 times
- d. 6 or more times

22. In regard to the free shuttle services that the City of Malden provides to seniors for food shopping, please indicate if you agree, disagree, or don't know with the following statements:

I am aware of the free shuttle services for seniors.	Agree	Disagree	
It is easy to schedule a shuttle when I need it.	Agree	Disagree	Don't know
I usually schedule the shuttle services for myself.	Agree	Disagree	Don't know
I get picked up and dropped off in places that are convenient to me.	Agree	Disagree	Don't know
The shuttle services take me where I need to go.	Agree	Disagree	Don't know
The shuttle is comfortable to ride in.	Agree	Disagree	Don't know
The shuttle drivers are helpful.	Agree	Disagree	Don't know
The shuttle services are in a language that I understand.	Agree	Disagree	Don't know
I do not use the shuttle services because I can get to the store on my own.	Agree	Disagree	
I do not use the shuttle services because I have other ways to get where I need to go.	Agree	Disagree	

About you

23. What is your age?

- 60-64 years
- 65-69 years
- 70-74 years
- 75-79 years
- 80+ years

24. What is your gender?

- Male
- Female
- Other

25. How would you describe your ethnic/ racial background? [Please check all that apply]

- Caucasian or White
- African American or Black
- Hispanic/ Latino(a)/ Chicano(a)
- American Indian or Alaska Native
- Asian
- Pacific Islander
- Other

26. Is your annual household income from all sources:

- Less than \$10,000
- Between \$10,000-\$14,999
- Between \$15,000-\$19,999
- Between \$20,000-\$24,999
- Between \$25,000-\$34,999
- Between \$35,000-\$49,999
- Between \$50,000-\$74,999
- \$75,000 or more
- Prefer not to answer

27. What kind of place are you living in now?

- Private residence, alone
- Private residence, with one or more family members
- A group home, board and care, or supervised housing
- Assisted Living Facility or Continuing Care Retirement Community
- Nursing Home
- Senior Housing
- Subsidized Housing
- Other (Please describe) _____

THANK YOU FOR COMPLETING THE SURVEY!