

# **Providing Homebound Seniors in King County, Washington with Market Fresh Fruits & Vegetables**

**Program Evaluation  
of the Senior Farmers Market Nutrition Pilot Program**

**Sharon Beaudoin, RD  
Lynne Smith, PhD  
Donna Johnson, PhD, RD**

**University of Washington School of Public Health  
Health Promotion Research Center and  
Department of Nutritional Sciences**



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## EXECUTIVE SUMMARY

The Senior Farmers' Market Nutrition Pilot Program (SFMNPP) was an innovative approach to enhancing access to fresh fruits and vegetables for homebound seniors and supporting sustainable agriculture in Washington State. This report presents the results of an evaluation of the impact the SFMNPP had on the seniors who participated in the program.

The purpose for the program evaluation was to provide feedback and recommendations to program stakeholders including:

- the effect of the program on participants' fruit and vegetable intake
- the participants' experiences of the program
- detailed information about benefits and barriers encountered by the participants that can be applied to future program planning.

The SFMNPP was successful in its goal to increase the fruit and vegetable intake of homebound seniors in King County, Washington. A quantitative fruit and vegetable intake survey was administered by phone to 87 SFMNPP participants and 44 representative controls before and during the last month of the basket deliveries. The following are the main survey findings.

- At baseline, only 22% of future program participants reported eating five or more servings per day. As a result of program participation, this percentage increased to 39%.
- Within the intervention group, daily consumption of fruits and vegetables increased by 1.04 servings per day. Within the control group, daily intake decreased by 0.27 servings per day. This difference is significant at  $p < .0001$  (CI 0.68-1.95).
- An overwhelming majority (94%) of program participants reported that they would like to participate in the SFMNPP in the future.

To gain a detailed understanding of the impact of the program, 27 of the participants were interviewed in their homes. A number of common themes were discovered, such as:

- program participants appreciated the quality and variety of the fresh fruits and vegetables
- many participants would not have had access to fresh fruits and vegetables without the program
- the program improved quality of life and brought joy into the lives of the participants by giving them the gift of fresh fruits and vegetables
- participants enjoyed the program newsletter and appreciated the fact that the produce was all locally grown

Our findings from both evaluation studies show that participants both enjoyed receiving the fruit and vegetable baskets and utilized the contents. Based on participant suggestions and study findings we recommend the following.

- Continue to provide homebound seniors with baskets of locally grown produce.
- Increase program capacity as feasible to allow for additional seniors (both homebound and mobile) to be served.
- Continue providing the educational newsletter with each basket.
- Establish a phone line for participants to call regarding produce identification and preparation questions.

## **INTRODUCTION:**

SFMNPP delivered bags of fresh produce from local farmers to homebound seniors enrolled in Meals On Wheels in Seattle and King County. Participants received the fresh fruits and vegetables every other week beginning in June and continuing through October, 2001 for a total of 10 bags of produce. A nutritional objective of the program is to increase the intake of fruit and vegetables by homebound seniors participating in the program. The program was planned and carried out through the collaboration of the King County Area Agency on Aging (AAA), Senior Services of King County, Public Health Seattle King County and the Pike Place Market Basket Community Supported Agriculture (CSA) cooperative.

The Health Promotion Research Center at the University of Washington joined the collaborative partnership in order to provide program evaluation for SFMNPP. The purpose of the present evaluation is to provide feedback to the collaborating partners regarding:

- Effect of the program on participants' fruit and vegetable intake
- Participants' perceived satisfaction and utilization of the program.

Participants' intake of fruits and vegetables at the beginning and at the end of the program are reported in Part 1. Quantitative Evaluation. Themes that were identified through in-person interviews regarding the participants' satisfaction and ability to utilize the fresh produce are reported in Part 2. Qualitative Evaluation.

## **PART 1: QUANTITATIVE EVALUATION**

### **Purpose**

The purpose of the quantitative portion of the program evaluation was to evaluate the effectiveness of the SFMNPP methods in increasing the fruit and vegetable intake of the program participants. A secondary purpose was to measure participant interest in future participation.

### **Subjects**

The subject population included two groups; an intervention group and a control group. The intervention group consisted of Meals on Wheels clients who were receiving SFMNPP fruit and vegetable basket deliveries. The control group consisted of seniors who were Meals on Wheels clients, were living within King County but outside of the SFMNPP catchment area, and were thus, not receiving fruit and vegetable baskets. The baseline survey was administered to 100 seniors scheduled to receive SFMNPP baskets (interventions) and 52 controls. The post-intervention survey was administered to 87 SFMNPP participants and 44 controls. We were unable to reach 16 seniors from the baseline sample, of which 3 were deceased. Also, five from the baseline sample were removed after discovering they did not fit within the eligibility requirements for participation.

### **Procedures and Methods**

The faculty and staff of the UW/Health Promotion Research Center (HPRC) conducted two fruit and vegetable intake phone surveys. A baseline survey was conducted prior to basket delivery. A post-intervention survey was conducted during the last few weeks of the intervention to ascertain whether or not fruit and vegetable intake is associated with basket deliveries.

The evaluation participants were recruited via invitation to participate cards that were delivered by Meals on Wheels drivers prior to the beginning of the basket deliveries. With the recruitment card, the seniors were given a postage-paid, pre-addressed postcard that they returned to the HPRC, identifying their willingness to participate. They were also given the option to call the HPRC directly to volunteer to participate. Survey volunteers were paid either five or ten dollars per survey completed. All volunteers needed to be at least 60 years old and receiving Meals on Wheels to participate. Participants also needed to have access to a phone and the ability to hear and comprehend the survey questions. The appendix includes the baseline and post-intervention food frequency questionnaires.

The food frequency questionnaire was selected as the data collection tool because it is the most appropriate method of assessing dietary intake and dietary change in epidemiologic studies. Also, it is also the least expensive dietary intake measure and has very little

respondent burden. Many validated FFQ's include fruit and vegetable intake modules that quantify daily fruit and vegetable consumption. The Behavior Risk Factor Surveillance System (BRFSS) fruit and vegetable module was selected for use in this evaluation based upon its high reliability and widespread use.

In an effort to increase participant comprehension, the BRFSS fruit and vegetable module questions were modified to add detail. The following table presents the survey questions.

| <b>Fruit and Vegetable Intake Survey Questions</b>   |
|--|
| 1. How often did you drink 100% fruit juices, such as orange juice, apple juice or tomato juice?   |
| 2. Not counting juice, how often did you eat fruit, including fresh, canned, frozen and dried fruit?   |
| 3. How often did you eat green salad?  |
| 4. How often did you eat potatoes such as baked, boiled or mashed? Do not include French fries, fried potatoes or potato chips.  |
| 5. How often did you eat carrots? Include fresh, canned, frozen and carrots in mixed vegetables.   |
| 6. Not counting carrots, potatoes or green salad, how often did you eat other vegetables? Include fresh, canned, frozen vegetables, and vegetables you added into casseroles or mixed dishes. Do not include legume-type beans such as pinto and kidney. |

Table 1.

Participants were also mailed a serving size key prior to completing both surveys to aid in answering the survey questions. The appendix includes the serving size key.

Baseline survey data was collected during the month prior to basket deliveries (June 2001). Post-intervention data was collected during the last month of the SFMNPP (October 2001). The data was collected concurrently for both groups.

## Population Demographics

| Race/ Ethnic Background           | Intervention Group (% of total) | Control Group (% of total) | Age         | Intervention Group (% of total) | Control Group (% of total) |
|-----------------------------------|---------------------------------|----------------------------|-------------|---------------------------------|----------------------------|
| Caucasian or White                | 56 (64%)                        | 34 (78%)                   | 60-69 years | 33 (38%)                        | 14 (32%)                   |
| African American or Black         | 24 (28%)                        | 6 (13%)                    | 70-79 years | 29 (33%)                        | 11 (25%)                   |
| Hispanic or Latin American        | 3 (3%)                          | 0 (0%)                     | 80-89 years | 19 (22%)                        | 17 (38%)                   |
| Asian or Pacific Islander         | 0 (0%)                          | 2 (5%)                     | 90+ years   | 6 (7%)                          | 2 (5%)                     |
| American Indian or Native Alaskan | 0 (0%)                          | 1 (2%)                     | Total       | 87 (100%)                       | 44 (100%)                  |
| Did not indicate                  | 4 (5%)                          | 1 (2%)                     |             |                                 |                            |
| Total                             | 87 (100%)                       | 44 (100%)                  |             |                                 |                            |

Table 2.

The majority in both groups was female; 71% and 75% in the intervention group and the control group respectively. The mean ages were 74 years in the intervention and 75 in the control group. Tables 2 and 3 depict the demographic composition of both groups.

| Living Situation                           | Intervention Group (% of total) | Control Group (% of total) |
|--|---------------------------------|----------------------------|
| Living alone                               | 65 (75%)                        | 31 (70%)                   |
| Living with spouse or partner              | 8 (9%)                          | 6 (14%)                    |
| Living with adult children                 | 6 (7%)                          | 3 (7%)                     |
| Living with other adult, such as caregiver | 4 (4.5%)                        | 3 (7%)                     |
| Living with other relatives                | 4 (4.5%)                        | 1 (2%)                     |
| Total                                      | 87 (100%)                       | 44 (100%)                  |

Table 4.

Participants were also asked to describe their current living situation. Approximately 3/4ths of the population reported living alone. The remaining 1/4 were either living with a spouse, partner, family members of other adult such as caregiver. Table 4 presents the complete results.

The survey population included representatives from the cities of Seattle, Kent, Federal Way, Auburn, Shoreline, Renton, Vashon Island, Bellevue, Kirkland, Issaquah, Bothell, Burien, Des Moines, Snoqualmie and North Bend.

## Survey Findings

The goal of the quantitative survey was to evaluate whether or not deliveries of fresh fruits and vegetables to homebound seniors would increase daily consumption. In this population, basket deliveries were shown to be associated with a significant increase in total servings of fruits and vegetables per day. The following table presents both the baseline and post-intervention results for total daily servings.

| Group        | Baseline- Mean Daily Intake | Post-Intervention- Mean Daily Intake | Daily Increase or Decrease | Effect Size               |
|--------------|-----------------------------|--------------------------------------|----------------------------|---------------------------|
| Intervention | 3.51                        | 4.55                                 | +1.04                      | CI (0.68-1.95)<br>p<.0001 |
| Control      | 4.02                        | 3.75                                 | -0.27                      |                           |

Table 5.

The current nutrition recommendations from the US Department of Health and Human Services suggest daily consumption of five or more servings of fruits and vegetables per day. In 1998, in a report published by the Seattle-King County Department of Public Health it was stated that only 32% of adults older than 65 years were consuming five or more servings per day. This survey found that at baseline, only 22% of the intervention group and 30% of the control group were eating five or more servings per day. In contrast, during program participation the percentage of respondents within the intervention group who reported eating five or more servings per day increased to 39%, the percentage within the control group dropped to 23%. Table 6 presents total daily intake grouped into quartiles and compared to the Washington State BRFSS results.

| Total Daily Servings | Intervention Group- Baseline | Intervention Group- Post Intervention | Control Group- Baseline | Control Group- Post Intervention | Washington BRFSS* |
|----------------------|------------------------------|---------------------------------------|-------------------------|----------------------------------|-------------------|
| 5+                   | 22%                          | 39%                                   | 30%                     | 23%                              | 33%               |
| 3-4                  | 36%                          | 40%                                   | 32%                     | 45%                              | 46%               |
| 1-2                  | 38%                          | 20%                                   | 36%                     | 30%                              | 19%               |
| <1                   | 5%                           | 1%                                    | 2%                      | 2%                               | 2%                |
| Total                | 100%                         | 100%                                  | 100%                    | 100%                             | 100%              |

Table 6.

\* Combined CDC data from 1996, 1998 and 2000

For analysis purposes, fruits and vegetables were grouped into separate categories. Within the intervention group, daily intake of both fruits and vegetables increased. Within the control group, daily intake of fruits decreased and vegetable intake only increased slightly. Significant associations between program participation and daily intake of fruits and vegetables were found as shown in Table 7.



| Group              | Baseline- Mean Daily Intake | Post-Intervention- Mean Daily Intake | Daily Increase or Decrease | Effect Size              |
|--------------------|-----------------------------|--------------------------------------|----------------------------|--------------------------|
| <b>Fruits</b>      |                             |                                      |                            |                          |
| Intervention Total | 1.67                        | 2.14                                 | +0.47                      | CI (0.34-1.29)<br>p<.001 |
| Control            | 2.07                        | 1.72                                 | -0.35                      |                          |
| <b>Vegetables</b>  |                             |                                      |                            |                          |
| Intervention       | 1.84                        | 2.41                                 | +0.57                      | CI (0.15-0.89)<br>p<.01  |
| Control            | 1.96                        | 2.03                                 | +0.07                      |                          |

Table 7.

The survey included two questions designed to measure overall daily fruit intake and four to measure vegetable intake. Table 1 presents the specific survey questions. The largest daily increases were seen in the other fruits (+0.32 servings per day) and other vegetables (+0.30 servings per day). However, daily intake of all categories included in the survey increased during the program. The following table shows the daily increases in each fruit and vegetable category for program participants.

| Category             | Baseline | Post | Daily Increase |
|----------------------|----------|------|----------------|
| Juice                | 0.68     | 0.83 | +0.15          |
| All other fruit      | 0.98     | 1.31 | +0.32          |
| Green salad          | 0.45     | 0.54 | +0.09          |
| Potatoes             | 0.42     | 0.51 | +0.09          |
| Carrots              | 0.32     | 0.41 | +0.09          |
| All other vegetables | 0.65     | 0.95 | +0.30          |

Table 8.

In addition to the fruit and vegetable data, seniors were asked to rate their health status on a scale ranging from excellent to poor. A small improvement in self-rated health occurred in both groups during the study duration, with the control group improving slightly more than the intervention group. The average score for both groups fell between good and fair health, both at baseline and post-intervention. The slight improvements were not statistically significant. Table 9 shows these results.

| Group        | Mean Self-Rated Health Baseline Score | Mean Self-Rated Health Post-Intervention Score | Change |
|--------------|---------------------------------------|--|--------|
| Intervention | 3.53                                  | 3.36   | -0.17  |
| Control      | 3.61                                  | 3.27   | -0.34  |

Table 9. Key: 1= excellent, 2= very good, 3= good, 4= fair, 5= poor

In the baseline data, there was a trend between higher daily fruit and vegetable consumption and better self-rated health in the entire survey population (both interventions and controls). This trend was statistically significant (p<.02). However, no such trend

was established in the post-intervention data. Figure 1 portrays the trend in the baseline data.

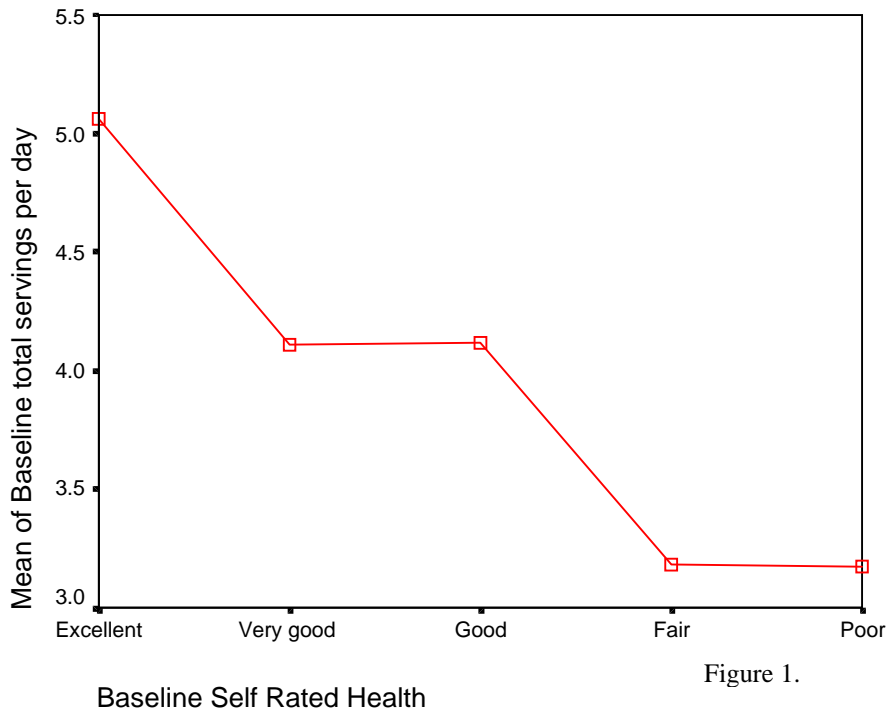


Figure 1.

Finally, program participants were asked whether or not they would like to participate in the program in the future. An overwhelming majority (94%) said yes. The remaining 6% was split between those who said no (5%) and those who were not sure (1%).

At this time in the survey, many participants provided comments about the program. The following is a compilation including twelve of these comments. A complete comment table is included in the Appendix.

***Comments from those who said that they would like to participate in the future (10):***

- I think it is the best program ever. I love the recipes.
- I love the price. It's wonderful, like Santa Claus every other week.
- I wouldn't be able to get fruit and vegetables without the program.
- I am always thrilled when the bag shows up
- I was removed from the program even though I would really like to continue. I just love getting the fruits and vegetables. Without them, I don't eat as well.
- What I can't use I give to my neighbor. She helps me out in return. She really appreciates it. Of course, I only give her what I can't use or don't want. I eat most of it.
- It was wonderful and heartwarming. We looked forward to getting the baskets. It was Christmas every 2 weeks.
- I have never had so many fruits and vegetables on hand. I looked forward to getting each bag.

- It's the reason I eat so many fruits and vegetables. I love it! I look forward to it coming.
- I loved the salad greens and the fruit. The others I couldn't prepare with only one hand and without a stove. I would like to see more microwave recipes. Precut vegetables would also be great. The quality was really great. It was heavenly. I would like to have a basket every week! Thank you so much.

***Comments from those who said that they would not like to participate in the future (2):***

- I would prefer to just get Meals on Wheels. I couldn't use them.
- I can't use the veggies and I just want the fruit, but you won't deliver just fruit. The veggies are too hard to prepare.

## PART 2: QUALITATIVE EVALUATION

### Purpose

The purpose of the qualitative study was to talk with the homebound seniors directly in order to ascertain themes or significant issues regarding the participants' ability to utilize the fresh produce provided by the program and their satisfaction with the program. Once issues are identified, then hypotheses can be generated regarding how the program is effective and what factors are important to consider from the seniors' perspectives.

### Subjects

Volunteers for in-person interviews were solicited through flyers placed in the produce baskets of 230 participants during the 5<sup>th</sup> cycle of baskets. The first 25 respondents, both telephone and mail in replies, were selected based on order of receiving their replies, representation of geographic areas of the MOW participants and being able to set up an appointment for the in home interview.

The final 3 subjects were selected in order to include additional geographic areas. Twenty-seven of the 28 subjects who made appointments completed the interview. In two cases a spouse or care taker also contributed to the interview. One subject cancelled the interview when the interviewer arrived (9/14) in order to watch a 9/11 memorial service on television.

The subjects were similar in demographic distribution to the overall Meals On Wheels participants regarding gender, age and race. The diversity of racial minorities was less represented. For example, there were no Asian or Pacific Island participants among the in-person interviewees. However, this was likely due to the small sample size.

|               | Meals on Wheels<br>Participants<br>N=557 | Interview Subjects for<br>Qualitative Evaluation<br>N=28 |
|---------------|--|--|
| <b>Gender</b> |  |  |
| • Males       | 30%                                      | 7 (25%)  |
| • Females     | 70%                                      | 21 (75%)   |
| <b>Age</b>    |  |  |
| • <60         | 1.1%                                     | -  |
| • 60-69       | 25%                                      | 9 (32.1%)  |
| • 70-79       | 36%                                      | 12 (42.8%)   |
| • 80-89       | 30%                                      | 4 (14.3%)  |
| • 90-older    | 7.9%                                     | 1 (3.6%)   |
| • Unknown     | -  | 2 (7.1%)   |
| <b>Race</b>   |  |  |
| • White       | 66.5%                                    | 19 (65.5%)   |
| • Non-white   | 30%                                      | 7 (26%)*   |
| • Unknown     | 3%                                       | 2 (7.1%)   |

\*Non white subjects represented 18% Black American, 4% Native American, and 4% Puerto Rican.

Most of the subjects lived alone (75%) and the majority lived in public housing, senior housing or other rental units (57%).

|                             | Interview Subjects<br>for Qualitative<br>Evaluation<br>N=28 |
|-----------------------------|---|
| Housing                     |   |
| • Private home              | 12 (42.9%)  |
| • SHA/senior public housing | 11 (39.3%)  |
| • Apartment/rental          | 3 (10.7%)   |
| • In-law apartment          | 2 (7.1%)  |
| Living situation            |   |
| • Alone                     | 21 (75%)  |
| • With spouse               | 4 (14%)   |
| • With family               | 2 (7.1%)  |
| • With caretaker            | 1 (3.6%)  |

## Procedures and Methods

Semi structured in-person interviews were conducted with 27 participants. The interviews lasted 20-45 minutes. Participants were asked about the following areas (see Appendix for text of questions):

- General thoughts about the program
- Utilization of fruit and vegetable items
- Ability to prepare the fresh fruit and vegetables
- Quality of the fruit and vegetable items
- Usefulness of the newsletter
- Interest in participating in the program in the future

Probing was used to help subjects recall their use of the produce, problems experienced, whether or not they had help with preparing the produce items, other sources of fresh produce for comparing the quality of the produce, and their experiences with the news letter. Although not specifically asked, many subjects provided information about their health, disability and their financial ability to purchase fresh fruit and vegetables.

Twenty four of the 27 completed interviews were taped and transcribed. The transcribed interviews were analyzed to identify themes relating to the participant's

- Utilization of the fruit and vegetables
- Satisfaction with the program.

## **In-Person Interview Findings**

A number of common themes were revealed through analysis of the in-person interviews. The major themes relating to the program evaluation are summarized as follows:

- Program participants appreciated the quality and variety of the fresh fruits and vegetables
- Many participants would not have had access to fresh fruits and vegetables without the program
- The program improved quality of life and brought joy into the lives of the participants by giving them the gift of fresh fruits and vegetables
- Participants enjoyed the program newsletter and appreciated the fact that the produce was all locally grown
- Participants thought that other seniors would benefit from the program and wanted it to continue

All of the participants who were interviewed utilized most or all of the fruit items. Since the fruit items could be eaten without cooking, seniors that needed help with chopping and cooking could wash and eat the fruit without assistance.

Most of the fruit items were familiar to all the participants. Later in the program less common varieties such as the black pears and Asian pears required identification.

Some of the seniors said that because fruit is expensive to buy, they would not have been able to buy the amount or variety of fruit that they received through the program.

Utilization of the vegetable items varied more among the seniors. The participants mentioned different factors that influenced whether or not they ate certain items including:

- Food preferences
- Care taker or chore assistance with food prep
- Physical disability
- Lack of energy to do food prep
- Unfamiliarity or lack of knowledge about certain items
- Special diets or food restrictions

A number of the participants expressed that they enjoyed fruits and vegetables, they were conscious of having a healthy diet and aware of benefits from eating fresh fruits and vegetables.

Participants who followed special diets or had one or more food restrictions involving fruits or vegetables still used most of the produce they received. For example, one senior who could not eat corn ate everything else and gave the corn on the cob to another senior in her building.

**What did participants identify as the benefits of receiving the produce baskets?**

- Better control of diabetes
- Improved regularity
- Psychological up lift knowing people care to provide the fruits and vegetables
- Added interest and variety in the diet
- Fun and enjoyment to have the surprise basket
- Anticipation of getting the produce
- Received items that they could not afford to buy
- Tried items that were new
- Enjoyed the fresh herbs
- Enjoyed the freshness of the produce, items tasted better than store bought
- It was the only fresh produce that they get

All of the subjects of in-person interviews stated that they wanted the program to continue and they would sign up again if it were offered next year. When asked for their suggestions to improve the program most of them said they liked it the way it was. When pressed they added suggestions about increasing or adding items they liked, such as peaches or collard greens or potatoes and onions.

**What suggestions did participants make for the program?**

- Have the program year around
- Continue it next year
- Extend it to younger participants
- Increase the amount of fruit or increase both fruit and vegetables
- Deliver it every week (same amount spread out)
- Continue it just the way it is

Almost all those interviewed indicated that they used the newsletter to refer to the list of items in the bag. Only one person, who was legally blind, said that she could not read the newsletter. Most of the participants said that they enjoyed reading the newsletter and that it was useful and informative about the program and the local farmers that grew the produce. Only a few said that they did not regularly read the articles.

**How did participants respond to the recipes in the news letter?**

- Read the recipes and tried one or more.
- Read the recipes for ideas, but did not try specific recipes.
- Collected the recipes to keep as a reference
- Didn't read the recipes, already knew how to cook or were not interested

Several seniors commented that they really liked the Farmers' Market recipe booklet. They found it useful because the recipes were basic and easy to follow.

Utilization of the produce by the participants was reported in subjective terms and was not quantifiable from the in-person interviews. However, the participants did indicate if they used everything, used everything except for only one or two items, or regularly did not use more items.

All of the participants who were interviewed utilized most or all of the fruit items. Since the fruit items could be eaten without cooking, seniors that needed help with chopping and cooking could wash and eat the fruit without assistance.

Most of the fruit items were familiar to all the participants. Later in the program less common varieties such as the black pears and Asian pears required identification.

Some of the seniors said that because fruit is expensive to buy, they would not have been able to buy the amount or variety of fruit that they received through the program.

Utilization of the vegetable items varied more among the seniors. Factors that participants said influenced whether or not they ate certain items included:

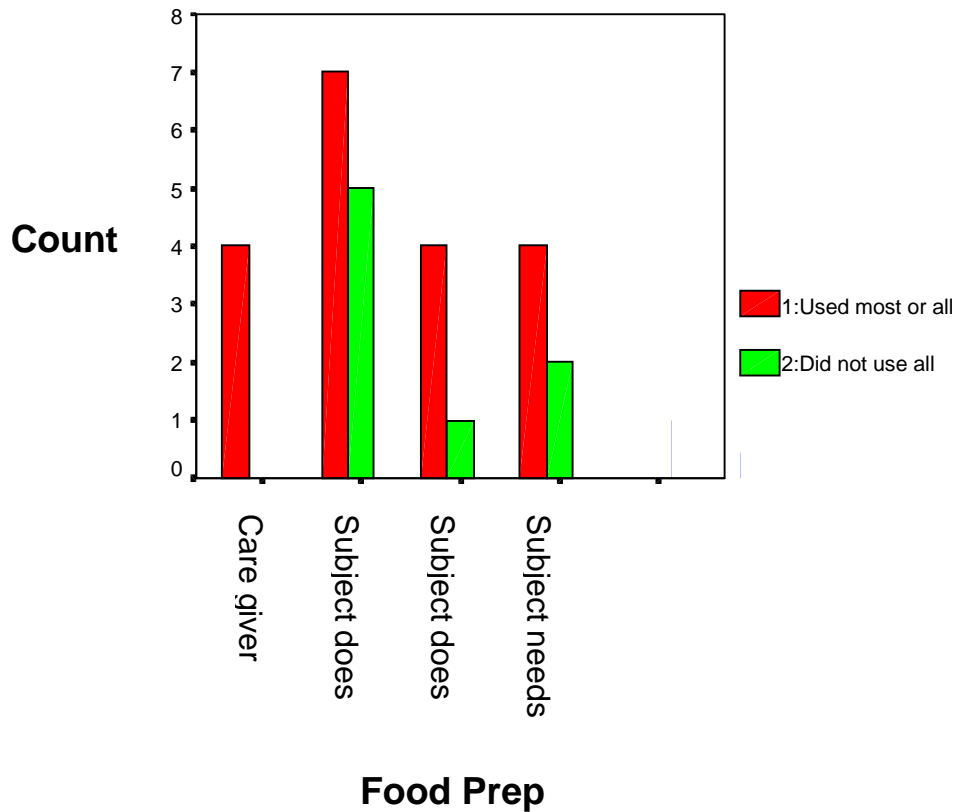
- Food preferences
- Having or needing a care taker or chore assistance for food prep
- Physical disability
- Lack of energy to do food prep
- Unfamiliarity or lack of knowledge about certain items
- Special diets or food restrictions



Eating habits influenced utilization of the produce. A number of the participants expressed that they enjoyed fruits and vegetables, they were conscious of having a healthy diet and aware of benefits from eating fresh fruits and vegetables.

Participants who followed special diets or had one or more food restrictions involving fruits or vegetables still used most of the produce they received. For example, one senior who could not eat corn ate everything else and gave the corn on the cob to another senior in her building.

The relationship between utilization of the produce and needing help to prepare food was explored from the interview data and the results are presented in the graph below.



It was noted that all the participants who had a care giver reported using all of the produce. A few seniors said that they needed more help and couldn't manage to prepare some of the produce, especially vegetables that required cooking. However, other participants with physical disabilities found ways to prepare things themselves or get help. It was clear that attitude as well as physical ability affected the outcome of utilizing most or all of the produce items. One senior was confined to a wheelchair and could not readily use the kitchen (he was wait listed for an accessible unit). He gave the produce that he could not fix to a neighbor in the same senior housing building, and the two of them shared the meal together.

## **RECOMMENDATIONS:**

Based on both the qualitative and quantitative studies it is clear that participants in the SFMNPP enjoyed receiving the fruit and vegetable baskets. The study results showed that they utilized most of the produce they received, increased their average daily intake of fruits and vegetables by 1.04 servings and the vast majority (94%) reported that they would like to participate in the future.

The following recommendations are based on both participant suggestions and study findings.

- Continue to provide homebound seniors with fresh fruit and vegetable baskets. The pilot program participants reported that the baskets were appropriate in size, of high quality and provided a good variety of locally grown fruits and vegetables. They also reported eating more fruits and vegetables as a result of this program.
- Given the limitation of Meals on Wheels and the Pike Place Market CSA: Continue the bi-weekly delivery schedule for most program participants. While some seniors requested weekly deliveries, the majority of the seniors interviewed seemed happy with the delivery schedule.
- Continue providing a newsletter with each basket. Many seniors reported that they appreciated the basket contents list, as well as the recipes and the cookbook. However, suggestions to improve the newsletter included providing more pictures of less commonly known fruits and vegetables and increasing the number of microwave recipes.
- Provide a telephone message line for participants to call with questions about the produce and how to prepare the fruits and vegetables. The nutritionist who prepares the newsletter would be a good person to manage this service. It could also serve as a mechanism for getting feed back from the participants while the program is underway.

In summary, from the seniors' perspective the fresh produce provided by SFMNPP was a valued addition to their lives and they would like to have the program continue. Quantitative and qualitative assessments of SFMNPP presented in this report provide evidence to support that the program met it's nutritional objectives and served to benefit homebound seniors.

## **APPENDIX**

- **Telephone Survey Questionnaire**
- **Telephone Survey Serving Size Key**
- **Telephone Survey Quotes**
- **In-Person Telephone Questions**
- **In-Person Interview Demographic Data**
- **In-Person Interview Quotes**

## Telephone Survey Quotes

| Gender                    | Would like to participate again? | Comment  |
|---------------------------|----------------------------------|--|
| F                         | Yes                              | I think it is the best program ever. I love the recipes.   |
| F                         | Yes                              | Wonderful.   |
| M                         | Yes                              | I get to eat more fruit. It is the greatest part of Meals on Wheels.   |
| F                         | Yes                              | It's made a big difference.  |
| F                         | Yes                              | It's been a God-send.  |
| F                         | Yes                              | I loved the vegetables.  |
| M                         | No                               | I would prefer to just get Meals on Wheels. I couldn't use them.   |
| F                         | No                               | I can't use the veggies and I just want the fruit but you won't deliver just fruit. The veggies are too hard to prepare.   |
| F                         | Yes                              | It's wonderful.  |
| M                         | Yes                              | I love the price. It's wonderful, like Santa Claus every other week.   |
| F                         | Yes                              | I wouldn't be able to get fruit and vegetables without the program.  |
| M                         | Yes                              | It is absolutely wonderful.  |
| F                         | Yes                              | I am always thrilled when the bag shows up.  |
| F                         | Yes                              | I was removed from the program even though I would really like to continue. I just loved getting the fruits and vegetables. Without them, I don't eat as well.   |
| F                         | Yes                              | It was great. I always looked forward to it.   |
| F                         | Yes                              | I appreciate it. It helps a lot.   |
| F                         | Yes                              | What I can't use I give to my neighbor. She helps me out in return. She really appreciates it. Of course, I only give her what I can't use or don't want. I eat most of it.  |
| F                         | Yes                              | I just loved it.   |
| F (surrogate for husband) | Yes                              | It was wonderful and heartwarming. We looked forward to getting the baskets. It was Christmas every 2 weeks.   |
| F                         | Yes                              | I wish they could extend it all year.  |
| F                         | Yes                              | It's like opening a surprise package every 2 weeks.  |
| F                         | Yes                              | I have never had so many fruits and vegetables on hand. I looked forward to getting each bag.  |
| F                         | Yes                              | It's the reason I eat so many fruits and vegetables. I love it! I look forward to it coming.   |
| F                         | Yes                              | I love that market!  |
| F                         | Yes                              | Some of the fruit was better than others. I loved all of the salad mix.  |
| F                         | Yes                              | It's a treat.  |
| F                         | Yes                              | Loved the salad greens and the fruit. The others I couldn't prepare with only one hand and without a stove. Would like to see more microwave recipes. Precut vegetables would also be great. The quality was really great. It was heavenly. Would like to have a basket every week! Thank you so much. |
| F                         | Yes                              | I would love to get the bags again.  |



**In general, what are your thoughts about the program?**

61y M Terrific, terrific. It saves a lot of time, and by being a diabetic I really can use the vegetables and fruit....It (diabetes) still gives me a lot of complications, but the fruit and the produce that they bring helps a lot. It really does.

65y F I love it! Everything's fresh!

80y F Well, it's a marvelous program and I hope they have it next year. The vegetables, as you saw, are fantastic, and you always get a good variety of them.

62y F I think it's the overall caring of those that are giving those products to the seniors, it's marvelous. They're well planned out, they've given us recipes and helpful hints for what to do, and it has greatly helped me this summer because of my limited ability to get to the store. And I have so much enjoyed the things that they've put in the baskets. It's even brought me tears a few times that there's that much giving in people's hearts to provide that extra special something. It's like a present with a bow on it, but there's no bow.

I enjoy it. I really enjoy it. It's encouragement to me to fix the fresh fruit.

Yes, it does (make a difference) to me...It's encouragement for me. There's something about that, giving you the fruit of their labor that says "we care"...that's what it does for me...what a joy it was to be able to receive it.

It is a gift. If I could encourage it happening again for other people I will do it. And if it could happen around the nation I think it's a way of reaching out and touching people.

And I think it's beneficial.

65y F I love it. I hope it never ends. I know it will, but I just love it. I tell you I couldn't afford to get all of the fruits, like what they put in the basket, I couldn't afford it. And those peaches are to die for. It seems like they were raised in sugar. They're so sweet.

93y F It's wonderful. I liked it all.

75y F I think it's very nice. I enjoy the fruits and vegetables. One reason is freshness. I don't get a chance to have fresh vegetables always.

87y F It's a wonderful project. I look forward to receiving it. I'll be a healthier person for it. Because I do get the baskets I think I eat more fruit.

75y F I think it's a very good program. I like everything.

65y M It's a good program. I'll sign up real quick (for next year).

The fresh fruit has been wonderful. The berries I mix with my cereal. The peaches I cut up and add to my cereal, too. I can't cook too well (disabled, uses wheel chair, apartment cooking facilities are not accessible), so I have a neighbor, I share my vegetables with her. She cooks them and shares them with me. That has worked real good.

72y F I enjoy getting it and I look forward to it.

71y F I think it's terrific. Mostly I like the fruits.

68y M I think it's great. I particularly enjoy the fruit. And I like the vegetables, too. Particularly the salad greens.

79y F I love it! Wish it went all the time.  
Be sure to tell them it's the most wonderful little vegetable cook book I've seen in a long time.

71y M It's really good stuff. You could tell it wasn't bought at the store. The store stuff is getting so bland.

77y F I enjoyed it so much. I like surprises for one thing. It's nice to have a surprise basket. The variety and the freshness.

81y M I think it's a good program. I talked to other people and they like it. I like it myself...For one person it's good. There's just enough for one person. I like practically everything they bring.

87y F I like it. Fresh fruit and everything. I don't do much cooking anymore... I like it all. Hunger is one thing I maintain.

73y M I like it all.

75y F I thought it was a very, very good idea. And I was surprised when I got the basket and I was anxious to see what was in the basket, what kind of fruits were in there. It wasn't like a check off list to check what you want. It was a volunteer thing, they give it without charging for it.

64y F I think it's wonderful, it's the only (fresh) fruit and vegetables that I ever get, really.

79y F I think it's the greatest thing that's happened to us. I do. Yeah. I'd like them to continue, because it's a great help. The vegetables and fruits are so fresh and you can't buy anything like that. I like it because it's fresh, it's absolutely different from what you get in the grocery store, and not only that, it stays and keeps longer in the refrigerator. Greens you get from the grocery store turn yellow in a matter of 2-3 days, and this is just great. It remains fresh. It's the freshness.

67y F I think it's a very good program. They give very good products. I really am enjoying them.

### **What do you suggest to improve the program?**

80y F Have it year around.

61y M I believe they could make it every week. That's my own assessment.

65y F It's perfect. Everything is okay.

62y F Maybe a little more fruit. At least that would be something I would enjoy.

65y F Continue it!

I think it's wonderful the way it is. I'd like a little more often. I wish it could continue year around.

87y F I don't think they could (make it better). I am extremely satisfied with the whole procedure. It's like getting a Christmas gift every other week. A nutritious one.

72y F If they would start using iceberg lettuce, that I'd use

71y F I think it's pretty good. Usually by the time they come again I will have used all this up. It's just great.

71y M More. I thought it was kind of neat. Really it came as a surprise. ...Too bad it doesn't run year around.

77y F It would help to have somebody to call. Because I know I would have called about the bok choy.

84y F I think it's very good... if they want the elderly to stay in their own homes.

73y M They've done all right by me. I don't have any complaints about it. A little more would be nice, but I ain't gonna be greedy.

75y F I think they should add more greens. Your collards last longer and it would make a fuller meal because it's a bigger vegetable...They should get more things that go in the salad like the green pepper...green onion...any kind of basics for a salad, and you could always use more lettuce...You can never go wrong with the potatoes and the onions...When they have lima beans and peas they could add that. And keep the recipes going. Because if you're unfamiliar with what's in the bag, then it will tell you how you can use it.

64y F My suggestion, except logistically it probably can't be done, is to deliver half the amount of produce every week. Not less. (Immune compromised senior)

67y F There should be more potatoes and onions, enough to do something with. My budget is so tight I cannot buy onions.



**The following quotes relate to the news letter.**

77yF who has a care taker that helps with cooking: (The news letter?) Very helpful. We've tried one recipe. The braised greens, that was very good...The blueberries were just great. I had the recipe for blueberry cobbler, that's the only kind of cooking I do now.

65yF: I read the part about the farmers, how they got started on the farm. And that's why I like it. The part about what comes in the bag. I read the newsletter.

64yF: For me I thought it was an excellent newsletter. I do read it. I have the recipes in a box here. I can't use it because I can't cook, because I can't I slice and dice, cut. But I thought it was excellent. I thought it was very nice of them to put it out. I mean they've just done an exceptionally good job of trying to help. I just hope they can keep it up. ... I enjoyed the bios on the local farmers. There was really nothing on nutrition I didn't already know. I've sat with the UW dietitians I don't know how many times. It's ok. It can reinforce if you hear things over and over.

85yF: Yes. I read it all front and back. I don't remember trying the recipes. I think I did try some recipes. I do believe that I had used some of the recipes. You know 85 years of cooking, the catering service, I worked hard.

81y M: I found it useful because there is the recipe on the back. We tried the greens recipe. The recipes were helpful.

79y F: *Was the newsletter useful?* Yes it was. I read it cover to cover...It gave me ideas. And I love that little cook book that came the other day. It is the most practical vegetable book that I have ever seen. I got a whole book case full of cookbooks. But that's the most practical one. It's plain ordinary food. I don't go much for the fancy, gooped up stuff.

I tried some of the recipes. They worked, but some of them I like my way better. But they were helpful, they give you ideas. I may not use them, but I'm one of these people that rarely follows a recipe.

87y F: Yes (it was useful). It itemized what was in the baskets and then it had several recipes and how to use some of the vegetables. I tried some of the recipes.

62y F: I thought it was really nice to know who was providing the fruit.