

From Garden to Recipient: A Direct Approach to Nutrition Education

Abstract

Maine Harvest for Hunger (MHH) involves Master Gardeners in food security through participation in gleaning and gardening projects that benefit food pantries. A statewide survey (Murphy, 2011a) indicates many food pantries face increased demand but are unable to distribute all of the donated produce. The MHH program in Oxford County is designed to provide vegetables and nutrition education directly to people with limited access to fresh produce. Participant survey results show this method is successful. Over 90% of respondents indicated their diets and knowledge of nutrition have improved somewhat to greatly and over 70% have made significant behavior changes.

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Introduction

Growing and donating fresh garden produce to those in need is a very rewarding volunteer experience for many Master Gardeners (Voluntad, Dawson, & Corp 2004; Peronto & Murphy, 2009). In recent years, emergency food programs such as food pantries and soup kitchens have reported a sharp increase in the demand for food (Feeding America, 2012a). The University of Maine Cooperative Extension's Maine Harvest for Hunger (MHH) program is a statewide initiative to improve low-income Maine residents' access to and consumption of fresh fruits and vegetables.

Background and Program Description

The Maine Harvest for Hunger program encourages gardeners and farmers to donate high-quality, surplus produce to those with limited access to fresh fruits and vegetables. This is primarily accomplished by involving Master Gardeners in gathering donated produce, gleaning farm fields, and participating in gardening projects. Most MHH harvests are distributed to local food pantries. However, results from a 2011 statewide food pantry survey (Murphy, 2011a) indicate that some pantries are unable to process and distribute all of the fresh produce given to them. Reasons given include: lack of refrigeration, infrequent pantry hours, food recipients lack of knowledge about how to cook or prepare fresh produce, and pantry volunteers who do not have the time or expertise to

encourage fresh produce consumption.

To ensure that donated produce is used, an alternative method was developed. As part of their volunteer commitment, Oxford County Master Gardeners plan, plant, and maintain a 3/4-acre MHH garden. Then, from mid-July through early October, weekly garden harvests are distributed directly to individuals who have limited access to fresh produce.

In 2011, MHH harvest distributions occurred for 10 weeks from July 21st until October 13th at the Extension office. On average, 45-60 individuals attended each week, in turn feeding 90-120 people. Contact information that included name, address, phone number, and number of people in the family was collected weekly. In addition to receiving fresh fruits and vegetables, attendees were able to participate in cooking demonstrations, receive nutrition information fact sheets, and sample low-cost, nutritious dishes featuring garden fresh produce prepared by Extension Eat Well Nutrition Associates.

Oxford County is a rural, sparsely populated county located in southwestern Maine. Median household income of \$39,748 is less than the statewide median of \$46,933, and 13.2% of the county population lives below the federal poverty level (United States Census Bureau, 2012). Strikingly, 35% of Oxford County's food insecure population makes too much to qualify for food stamps and must rely on the charity food assistance network (Feeding America, 2012b). Maine ranks 18th in the nation and 2nd in New England in terms of food insecurity, which is defined by USDA as limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways (USDA, 2012). Maine is also the oldest state in the country on a per capita basis, with 16.3% of the population 65 or older (Good Shepherd Food Bank, n.d.).

In order to assess impact, a survey was mailed in April 2012 to 76 participants of the 2011 MHH distribution program. Participants were chosen if they had attended at least once during 2011. The mailing included the survey and a self-addressed postage paid envelope. A drawing for a gift certificate to a local grocery store was provided as an incentive to complete and return the survey.

In the survey, participants were asked to assess how the quality of their diet and level of nutrition knowledge changed as a result of receiving garden fresh produce using a scale of 1 to 5 with Not At All = 1, Slightly = 2, Somewhat = 3, Considerably = 4, Big Improvement = 5. They were also asked to indicate behavior changes they adopted due to participation in MHH.

Results and Discussion

Sixty-one people returned the survey, for a response rate of 80%. As listed in Table 1, 92% of respondents self-assessed that participation in the weekly harvest distribution made a somewhat to big improvement in the quality of their diets. In addition, 94% felt that their knowledge of basic nutrition had improved at least somewhat.

This new knowledge translated into behavior changes. As indicated in Table 2, most respondents indicated they now incorporate other healthy foods into their diets (89%), make more homemade meals (82%), eat a wider variety of fruits and vegetables (95%), shop differently at the grocery

store (80%), and eat more fruits and vegetables (92%). Less than half of the respondents reported canning or freezing surplus produce, perhaps due to inadequate knowledge or supplies to carry out this activity.

Table 1.

To What Degree Did Participating in the MHH Program Improve the Quality of Your Diet or Knowledge of Nutrition?

| Degree of Improvement | Areas of Impact | | | |
|-----------------------|---------------------|-----|-------------------------------|-----|
| | Overall Diet (n=61) | | Knowledge of Nutrition (n=61) | |
| | n | % | n | % |
| #1 – Not at all | 0 | 0% | 0 | 0% |
| #2 – Slightly | 1 | 2% | 4 | 6% |
| #3 – Somewhat | 12 | 20% | 19 | 31% |
| #4 – Considerably | 19 | 31% | 20 | 33% |
| #5 – Big improvement | 25 | 41% | 18 | 30% |
| No answer | 4 | 6% | 0 | 0% |

Table 2.

As a Result of Participating in the Garden Harvest Distribution...

| Behavior Changes | Respondents | |
|--|-------------|-----------|
| | Number | Percent * |
| I have incorporated other healthy foods into my diet | 54 | 89% |
| I make more homemade meals | 50 | 82% |
| I eat a wider variety of fruits and vegetables | 58 | 95% |
| I shop differently at the grocery store | 49 | 80% |
| I shared recipes given to me with family and friends | 47 | 77% |
| I eat more fruits and vegetables | 56 | 92% |
| I canned or froze surplus fruits and vegetables | 30 | 49% |
| * Sum does not equal 100% due to multiple responses | | |

Conclusion and Implications for Extension

The majority of people who participated in the 2011 Oxford County Maine Harvest for Hunger program are retired, low-income seniors over the age of 65 (Murphy, 2011b). The data clearly show that distributing local, fresh produce directly to these individuals provided learning opportunities and resulted in behavioral changes. As a result of participating in the MHH program, most respondents felt that the quality of their diets and knowledge of nutrition had improved. In addition, the vast majority self-reported adopting significant behavior changes as a result of the learning opportunities provided through the program.

The Oxford County Maine Harvest for Hunger program demonstrates that the direct distribution of produce to individuals through an Extension education program can be a successful way to improve participants' diets and their understanding of basic nutrition. However, the benefits do not stop there. On-site distribution allows for cross programming in nutrition education and provides an opportunity to recruit participants for other Extension programs. This method also provides social benefits. Master Gardeners and recipients interact and get to know each other, which breaks down stereotypes, and recipients are provided opportunities to give back by sorting and bagging produce, harvesting, or setting up the produce display. This method is more labor intensive than delivering the harvested produce to a third party for distribution but provides benefits that go far beyond pounds of cucumbers and green beans.

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