



PROMOTING VEGETABLE CONSUMPTION: LESSONS LEARNED FROM WIC MOMS AND COUNSELORS

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Abstract

The 'Veggies for ME!' program was designed to promote vegetable consumption among WIC participants and their families by addressing barriers identified from a needs assessment survey. The survey identified cost, limited preparation skills, inability to manage family likes/dislikes, and low familiarity with a variety of vegetables as major barriers to vegetable consumption. The program was delivered by three WIC agencies (two rural, one urban) to 320 participants. During a one-year program, four topics were addressed quarterly: 1) Food resource management; 2) Vegetable cooking and preparation techniques; 3) Feeding relationships and; 4) Exploring seasonality and variety in vegetables. Direct counseling by WIC counselors at regular WIC visits, handouts, and mailings were the program's main delivery channels. Program evaluation was conducted by quantitative and qualitative methods. **Quantitative evaluation** was carried out to compare **pre/post participant knowledge, skills, and behavior change** to increase vegetable consumption. For **qualitative evaluation, focus group discussions** were conducted with participants (n = 30) and WIC counselors (n = 14) at the end of the education intervention period. Of the four topics, participants found learning different cooking and preparation techniques most useful. *'Lack of sufficient time for effective counseling'* was expressed by both the participants and counselors. Many participants suggested group classes or cooking demonstrations instead of counseling. Comparing the results among three WIC agencies showed inconsistency in program delivery, highlighting a need for training and program monitoring. This project was funded by the United States Department of Agriculture, Food and Nutrition Service.

Needs Assessment

In order to direct education efforts, the planning workgroup consisting of Maine Nutrition Network, Maine WIC Nutrition Program and University of Maine Cooperative Extension staff created a survey to assess the **barriers to vegetable consumption, preparation and purchasing** by WIC participants from **400 clients participating in WIC** at the three agencies serving as intervention sites (**Portland—urban; Belfast—rural; Ellsworth/Machias—rural**). A market research company administered the survey via telephone. Results showed that:

- **58% of the clients have been making efforts to increase their vegetable intake**
- **52% of the clients indicated that knowing how to prepare vegetables would help them serve vegetables more often**
- **62% indicated that "the cost of vegetables" is a problem in purchasing**
- **29% noted that cost was the biggest problem in serving more vegetables**
- **41% indicated that "the quality of vegetables" is a concern when purchasing vegetables**
- **48% said that they cook vegetables for the family that they don't eat personally**

Program Focus

Based on the results of the needs assessment the following barriers were addressed:

- 1) Food resource management
- 2) Vegetable cooking and preparation techniques
- 3) Feeding relationships
- 4) Exploring seasonality and variety in vegetables.

Qualitative Findings From Focus Groups with Participants and Counselors

Key Findings—Program Awareness (Participants)

Have you ever heard of the 'Veggies for ME!' Program?

Awareness of the Veggies for ME! program was higher in rural sites where most or all of the participants knew of the program. Only about half of the urban clinic participants were aware that they had participated in Veggies for ME!

Participant Quotes

"I meet with my worker at WIC and get information on recipes, veggies, fruit, how to prepare things."

"I get farmers' market checks. Is that what 'Veggies for ME!' is?"

Key Findings—Program Content

Counselors' Impressions of "Veggies For ME!" Program Content

Counselors in all locations felt that the program content was comprehensive

"The info is stuff that people are interested in and can really use..."

Impressions of Core Areas:

- Feeding relationships—1) easy to teach, 2) motivates moms
- Vegetable Purchasing—1) easy to extend concepts to other foods, 2) clients find difficult due to fixed budgets, 3) should be emphasized more
- Vegetable preparation—1) most difficult to teach, 2) many clients don't have basic cooking skills, 3) should be emphasized more

Participants' Most and Least Helpful Elements of the Program

- | Most Helpful | Least Helpful |
|--|--|
| 1. Learning new cooking methods | 1. Not enough information |
| 2. Receiving recipes and cookbooks | 2. Not getting farmers' market vouchers* |
| 3. Receiving farmers' market vouchers* | 3. Counseling/meal pricing |

*Farmers' market vouchers were not given as part of the education program, however many of the participants associated receiving vouchers as being a result of participation.

Key Findings—Counseling

Impressions of "Veggies For ME!" Counseling—Common Themes and Recommendations From Participants and Counselors

- Counseling sessions would be more effective if the participants and counselors had more time to devote to counseling
- More detail in the lesson plans is necessary
- Hold cooking classes/group demonstrations
- Participants should see the same counselor each time

Key Findings—Program Materials

Impressions of "Veggies For ME!" Program Materials

Counselors' Impressions

- | Most Useful Materials: | Least Useful Materials: |
|------------------------|--|
| • Recipes | • Shopping lists |
| • Family Meal Plans | • Recipes with expensive or exotic ingredients |
| • Incentive Items | |

Participants' Impressions

- | Most Useful Materials: | Least Useful Materials: |
|--|--|
| • Cooking Maine Grown Vegetables Handout | • Shopping lists |
| • Family Meal Plans | • Recipes that were not "Kid Friendly" |
| • Incentive Items | |
| • Recipes | |

Key Findings—Program Effectiveness

Impressions of "Veggies For ME!" Program Effectiveness

Mixed Results

Counselors: The people who have participated and have really made some changes are excited.

Participants: I used to have to set an amount and kind of vegetables I ate. Now I have tried broccoli and I really don't have otherwise.

Counselors: Favorable

Participants: I'm not sure. It's something I need to start doing. When I can cook I try to make sure I have vegetables.

Counselors: Unfavorable

Participants: I think their knowledge has increased, but not necessarily their vegetable consumption.

Quantitative Findings From Pre/Post Survey, Self-administered at the Clinic

Pre Survey/Post Survey Comparisons

Socio-Demographic Comparison

	Pre	Post
Number of Participants*	n=292	n=124
Mean Monthly Household Income	\$1,175	\$1,414
Mean Household Size	3.74	3.53
Region:		
Portland	57%	41%
Belfast	15%	23%
Ellsworth/Machias	28%	36%

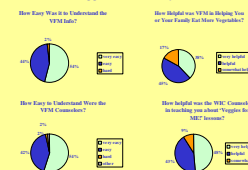
* Number of participants who filled out the survey

Topic	Percent Response
Learning how to save money when buying vegetables	21.4%
Learning how to cook and serve vegetables	37.6%
Learning how to get my family to eat vegetables	7.7%
Learning about fresh vegetables and farmers' markets	17.1%

In the past year, where did your household buy or get vegetables?			
	Pre (%)	Post (%)	P*
Grocery Store	98	98	.950
Convenience Store	8	10	.263
Farmers' Market/Farm Stand	43	57	.008
Your Garden	12	21	.024
Food Pantry	10	11	.598
Family/Friends	23	33	.086
How often do you serve vegetables?			
	Pre (%)	Post (%)	P*
1 or less than 1 times per day	60	51	.004
2 to 3 times per day	37	40	.004
More than 3 times per day	3	9	.004

* Chi-Square

Participants' Attitudes About the "Veggies for ME!" Experience

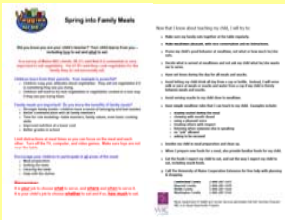


Implications

The results of the quantitative and qualitative evaluation of the 'Veggies for ME!' program suggest that it is effective in creating positive changes in vegetable purchasing and serving behaviors. Program participants and counselors provided valuable feedback about the successes and areas in need of improvement for the Veggies for ME! program.

- | Successes | Areas for Improvement |
|-----------------------------------|---|
| • Interesting and helpful content | • Provide more time for counseling sessions |
| • Education materials | • Hold group education sessions |
| • Incentives | • Demonstrate cooking techniques |

From a program monitoring perspective, results from the focus group discussions showed that participant awareness of being in the Veggies for ME! program and consistency in receiving all of the educational materials varied greatly—particularly in the urban clinic. These facts suggest that greater emphasis should be placed on providing training and technical assistance to the counselors educating the clients and increasing scheduled time for counseling.



Counseling Handout

Participating Family

Participation Incentives

Display at Clinic

Follow-up Newsletter