

***Good Food and a Whole Lot More:  
A Recipe to Increase Child Retention and Improve  
Utilization of the Food Package in the  
Massachusetts WIC Program***



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# Good Food Project Proposal



Offering more hands-on, varied nutrition education opportunities will better engage caregivers and children so that they are more likely to continue to participate in the program



# Good Food Project

Enhanced nutrition education curriculum will better address:

- Smart food shopping, incl. strategies to maximize WIC food benefits
- Reading food labels
- Healthy cooking techniques and skills
- Cooking with children
- Safe handling of food
- Batch cooking and meal planning
- Making favorite recipes healthier (recipe makeovers)
- Encouraging the consumption of healthy foods that may be unfamiliar to participants
- Utilizing SNAP to complement WIC/increase healthy food at home



# GFP Activities

## Curriculum for pilot WIC programs

Cooking classes/Food demonstrations

Food tastings

Group education

## Cooking Matters pop-up shopping tours

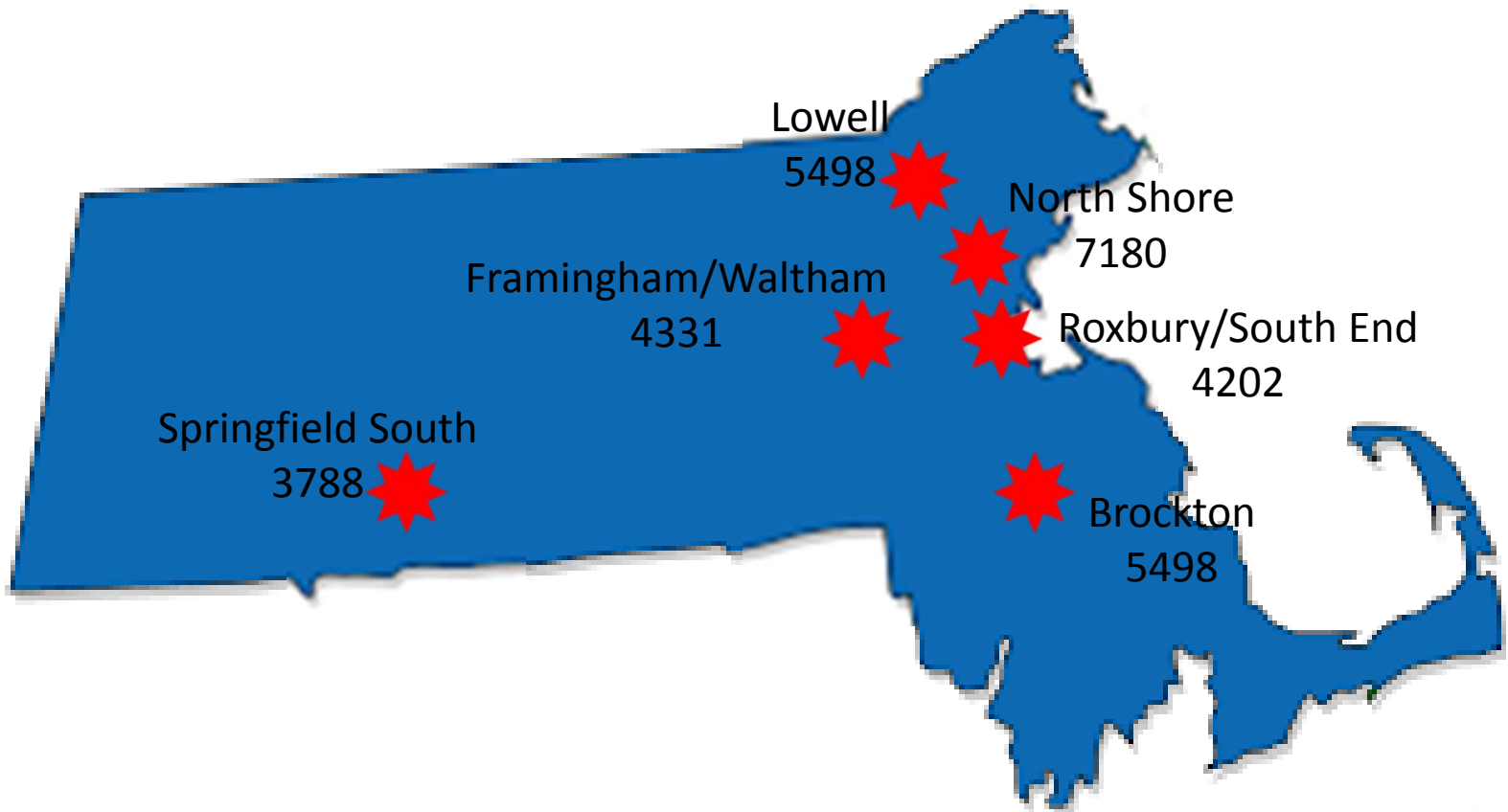
## ChopChop WIC magazine

## WICShopper app recipe sharing

## Individual pilot program initiatives



# Pilot Massachusetts WIC Programs



These six local WIC Programs represented over 25% of total MA WIC participants.

# Good Food Project Curriculum

## Cooking Class Types

- Basic skills
- Whole grains
- No-cook cooking
- WIC foods
- Recipe makeovers
- Cooking with kids
- 20-minute meals
- Microwave cooking\*
- Cook 1x, eat 3x\*
- Around the world\*
- Dips and dressings\*

\*Added in 2nd edition

## GFP Group Ed Topics

- Couponing
- Using SNAP and WIC together
- Seasoning and spicing up your meals\*
- Meal planning\*
- Microwave cooking\*



# Cheesy Egg Puffs



## 20-Minute Meals

*Estimated cost of ingredients for WIC Program: \$5*

*This recipe makes 8 egg puffs*

**To prepare for this class you will need:**

<b>Ingredients</b>	<b>Supplies</b>
1 cup potato, cooked and mashed (about 2 medium potatoes)	Small bowl
2 tablespoons plain yogurt or low-fat milk	Whisk or fork
¼ teaspoon garlic powder	Knife/cutting board
4 eggs	Measuring cups
½ cup shredded cheddar cheese	Muffin tin
1 medium tomato, diced (optional)	Spoon
1 green onion, sliced (optional)	
Pinch of salt and pepper	
Cooking spray	

# Cheesy Egg Puffs

## Class Options

Choose 1 or more choices from each category



Prepare	Demonstrate	Discuss	Display
The entire recipe prior to the class	The entire recipe	Flavor additions	Cheese package
The cooked potato	Part of the recipe	Vegetable substitutions	Eggs
Pre-cut the vegetables	Beating the eggs	WIC Foods	...
Premeasure cheese	Shredding the cheese	Cooking the potato	
	Filling the muffin tins		

Tips and Suggestions	Additional Talking Points	Let the Kids Help With...
<ul style="list-style-type: none"> <li>• Add chopped spinach</li> <li>• Add other leftover cooked vegetables such as carrots, green beans, asparagus, or squash</li> <li>• Add fresh or dried herbs such as dill, oregano, and parsley</li> <li>• Try different types of shredded cheese</li> <li>• Add red pepper flakes for a little spice</li> <li>• Refrigerate for up to 3 days</li> <li>• Freeze for up to 2 months</li> </ul>	<ul style="list-style-type: none"> <li>• WIC Foods</li> <li>• SNAP Foods</li> <li>• Cheese alternatives</li> <li>• Meal planning</li> <li>• Healthy breakfasts and snacks</li> <li>• Flavoring with spices</li> </ul>	<ul style="list-style-type: none"> <li>• Washing the vegetables</li> <li>• Putting the potatoes in the muffin tin</li> </ul>
		Let the Parents Help With...
		<ul style="list-style-type: none"> <li>• Cutting the vegetables</li> <li>• Breaking and mixing the eggs</li> <li>• Filling the muffin tins</li> <li>• Serving</li> </ul>



# Recipe Cards

## Zucchini Carrot Muffins

### Ingredients

- 3 cups grated zucchini (about 2 medium zucchinis, seeded)
- 2 cups grated carrots (about 5 medium carrots, peeled)
- 1 medium ripe banana, mashed
- 1 cup unsweetened applesauce
- 3 eggs, beaten
- ½ cup sugar
- 2 tablespoons canola or vegetable oil
- 1 tablespoon vanilla extract
- 1 tablespoon lemon juice
- 2 teaspoons cinnamon
- 1 teaspoon nutmeg
- 2 cups flour
- 1 cup whole wheat flour
- 1 teaspoon salt
- 1 teaspoon baking powder
- 1 teaspoon baking soda
- Non-stick cooking spray

### Chef Tips

- Use 1 teaspoon pumpkin pie spice instead of nutmeg.
- Use 1 cup plain yogurt instead of applesauce, or use half and half.
- Cut this recipe in half to make 12 muffins.
- To make a quick bread from this recipe: cut the recipe in half and pour into a greased loaf pan, bake for 50 minutes.



### Directions

1. Preheat the oven to 350° F and spray or line two 12-tin muffin pans.
2. In a large bowl combine the grated zucchini and carrot, banana, applesauce, eggs, sugar, oil, vanilla, and lemon juice. Mix well using a fork.
3. In another medium bowl, add the cinnamon, nutmeg, flour, salt, baking powder, and baking soda. Sift or mix well.
4. Slowly pour the dry ingredients into the wet and mix well.
5. Evenly pour the batter into the muffin pans.
6. Bake for 20 minutes or until an inserted toothpick comes out clean, let cool and serve.

Serves: 24 • Serving Size: 1 muffin • Prep time: 25 minute • Cook time: 20 minutes

Nutrition Facts Per Serving: 110 Calories, 2 g Fat, 20 g Carbohydrate, 3 g Protein, 194 mg Sodium

# Group Education Curriculum



## Group Education: Seasoning and Spicing Up Your Meals



### Make Your Own Spice Blends!

#### Taco Seasoning

- 3 TB onion powder
- 2 TB ground cumin
- 1½ tps chili powder
- ½ tsp cayenne
- 1 tsp garlic powder

#### Italian Seasoning

- 2 TB garlic powder
- 1 TB parsley
- 1 TB basil
- 1 TB oregano
- ½ tsp black pepper
- ½ tsp thyme
- 2 tps onion powder

#### Curry Seasoning

- 2 TB cumin powder
- 2 TB ground coriander
- 2 TB turmeric
- 1½ tps ground cardamom

#### Ranch Seasoning

- 2 TB dried parsley
- 2 TB dried chives
- 1 TB dill
- 1 TB garlic powder
- 1 TB onion powder
- 1 TB onion flakes
- 1 TB celery salt
- 1 tsp black pepper

#### Adobo Seasoning

- 1 tsp salt
- 3 TB onion powder
- 3 TB garlic powder
- 3 TB black pepper
- 2 TB oregano

#### Soul Food Seasoning

- 3 TB onion powder
- 3 TB garlic powder
- 2 tsp cayenne pepper
- 1 TB chili powder
- 1 TB paprika
- 1 tsp black pepper
- 1 tsp thyme



# Pop-Up Tours





# ChopChop WIC Magazine

## CHOPCHOP

GOOD FOOD PROJECT NEWSLETTER, Issue 5

Your third issue of ChopChop WIC magazine has arrived!

The ChopChop WIC magazine is being pilot-tested as part of the Good Food Project. This newsletter contains ideas for its use in cooking classes, group education, and bulletin board displays. Since there are limited copies of this magazine, please only distribute copies to participants who are provided with education based on the contents of this magazine.

Please let us know how your program makes use of ChopChop WIC!

### DEPARTMENTS and NOTABLE ITEMS

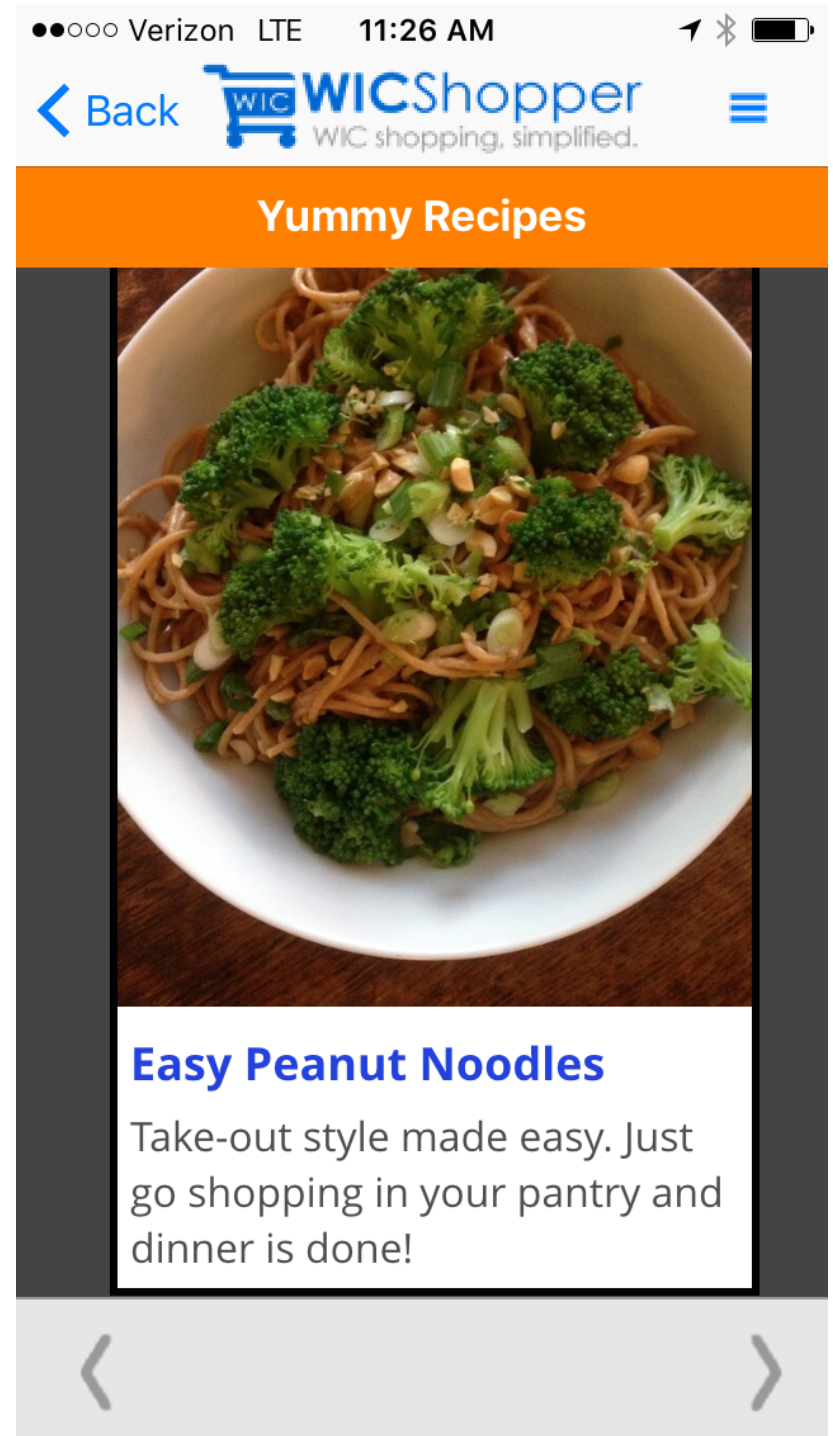
#### Kids in the Kitchen

Throughout the magazine, you will find tips for how parents can involve kids in the kitchen. What kids can do to help generally depends on their age and motor skills. The following are jobs kids can take on in recipes throughout this issue of the magazine. These points can be placed on a bulletin board display.

2-Year-Old	3-Year-Old All that a 2-year-old can do, plus:	4- to 5-Year-Old All that a 3-year-old can do, plus:
<i>Rinse and/or Scrub the vegetables</i>	<i>Pour ingredients</i>	<i>Crack and Beat eggs</i>
<i>Arrange toppings in bowls for serving</i>	<i>Shake the dressing</i>	<i>Measure ingredients</i>
<i>Snap off the stem ends of green beans</i>	<i>Drain and Rinse beans</i>	<i>Squeeze juice out of a lemon</i>
	<i>Mix, Toss or Stir the food together</i>	<i>Set and Clear the table</i>
	<i>Spread the peanut butter</i>	
	<i>Strip kale leaves off stems and Stack on cutting board</i>	
	<i>Wipe down the counter after cooking/eating</i>	
	<i>Place things in trash after cooking/eating</i>	

# WICShopper Yummy Recipes

- November 2015: First 20 GFP recipes uploaded onto MA WICShopper
- June 2016: a total of 40 GFP recipes available on MA WICShopper
- GFP recipes can be viewed by all registered MA WICShopper App users
- Periodic reports are provided by JPMA containing the number GFP recipe page views





# Pilot Expectations

- GFP activities minimum of twice weekly
- Promotion of GFP in clinic environment
- Documentation of GFP activities in Eos
- Tracking of GFP expenditures
- Pilot duration: Late 2015 – March 2017 (and beyond)

# Pilot Resources

- Parent advisor stipend
- Cooks' Kitchen portable kitchen, or additional kitchen resources for those with existing kitchens
- Support for cooking class and food demonstration supplies
- Marketing resources & incentives
- Ongoing training
- Ongoing technical assistance and support
- Quarterly working group meetings





## Evaluation Hypotheses

**CHILD RETENTION:** When a WIC household is exposed to GFP, the child participant is more likely to remain active in WIC, for longer periods of time.

**BENEFIT REDEMPTION:** When a WIC household is exposed to GFP, there is greater overall household redemption of fruits and vegetables, whole grains, legumes, and/or yogurt.

## Evaluation Overview

**PROCESS:** Can the GFP be implemented as intended? What works and doesn't work?

**OUTCOMES:** Did the GFP improve child retention and benefit redemption during the pilot program?





# Methodology

## PROCESS DATA

- Pre-pilot focus groups with WIC participants (2015)
- Monthly reports (2015-2017)
- Mid- and post-pilot staff surveys (2016-2017)
- Post-pilot participant survey (2017)
- In-depth interviews with staff and participants (2017)

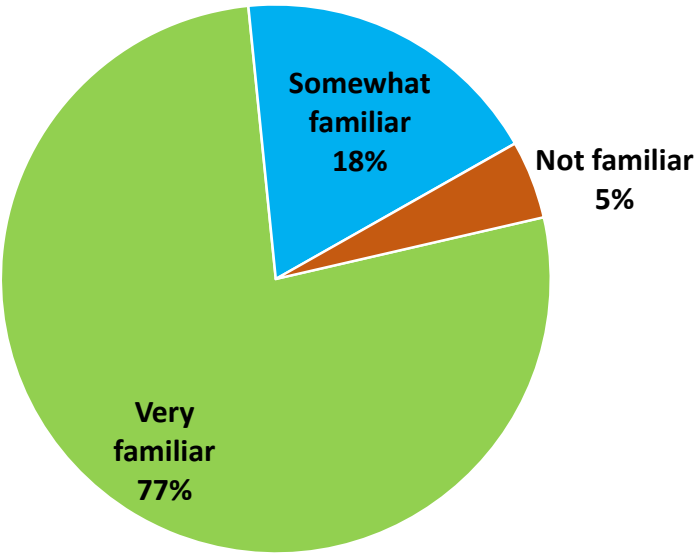
## OUTCOME DATA

- Monthly reports from pilot programs
- Massachusetts WIC participant information system – EOS
  - *Participant and household exposure to the GFP*
  - *Participant retention in WIC program*
  - *Benefit redemption – WIC Card (EBT)*
  - *Use of WICShopper app*

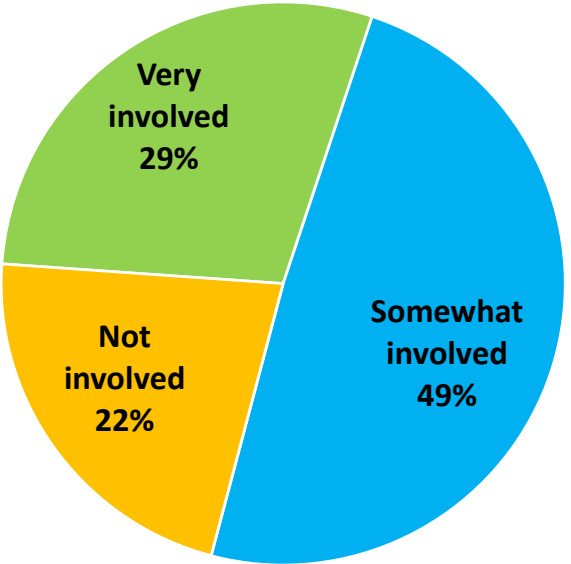
# Post-Pilot Staff Survey

- Survey included a mix of staff from all 6 pilot programs and with various job titles
- By the end of the pilot period, most staff surveyed felt they were familiar with GFP, although not all had been involved in the project

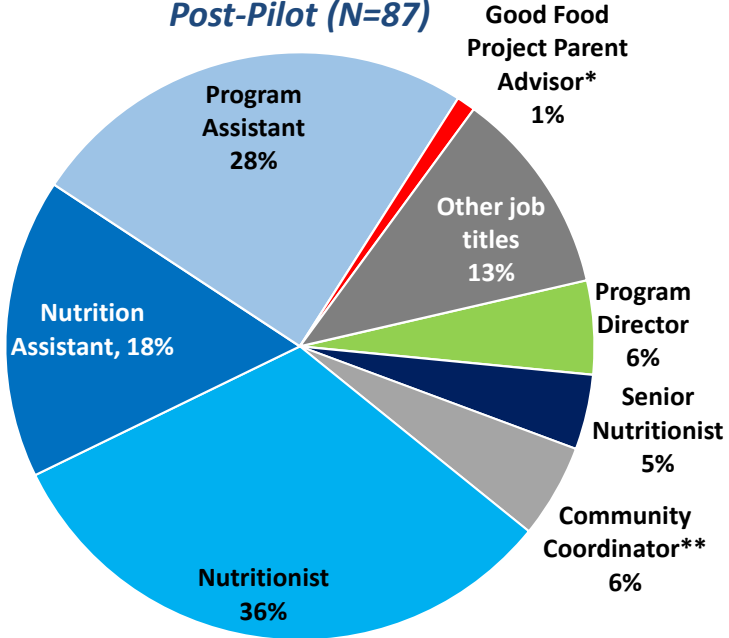
**Staff Familiarity with Good Food Project (N=87)**



**Staff Involvement with Good Food Project (N=87)**



**WIC Staff Surveyed Post-Pilot (N=87)**



\* WIC participant (not on staff)

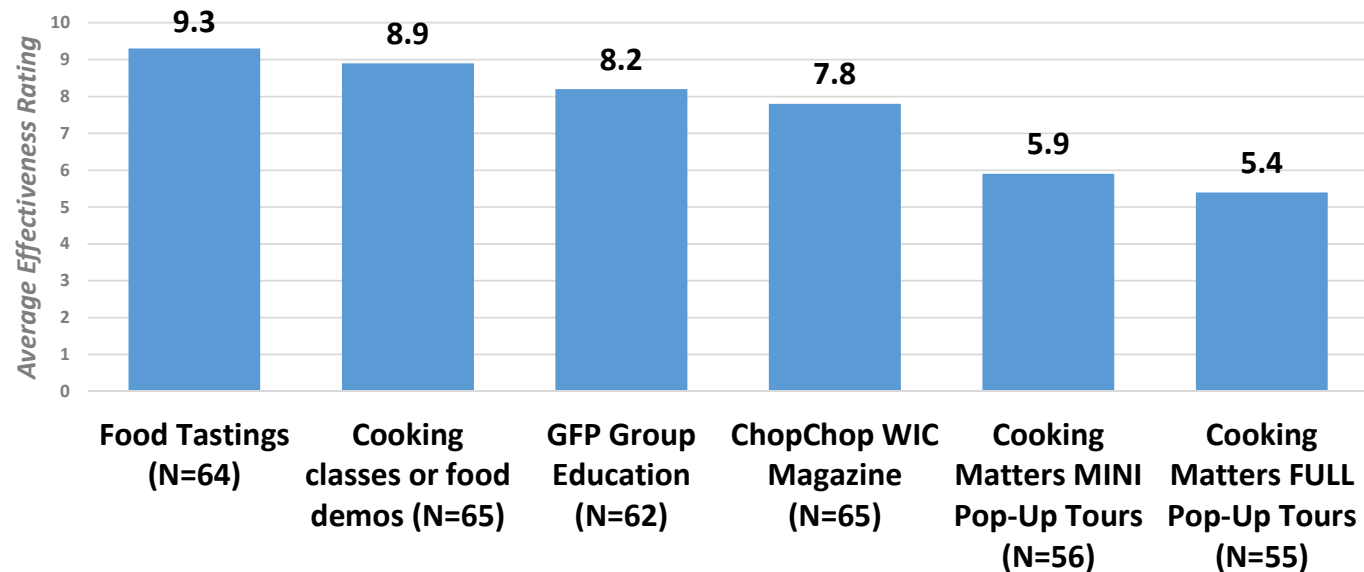
\*\* This position is unique to Massachusetts

## Post-Pilot Staff Survey (cont.)

WIC staff familiar with GFP whose programs offered various GFP activities were asked how successful they think those activities have been at their programs:

- Activities involving **hands-on participation**—and food—were rated as most successful
- Cooking Matters Pop-Up Tours were rated least successful

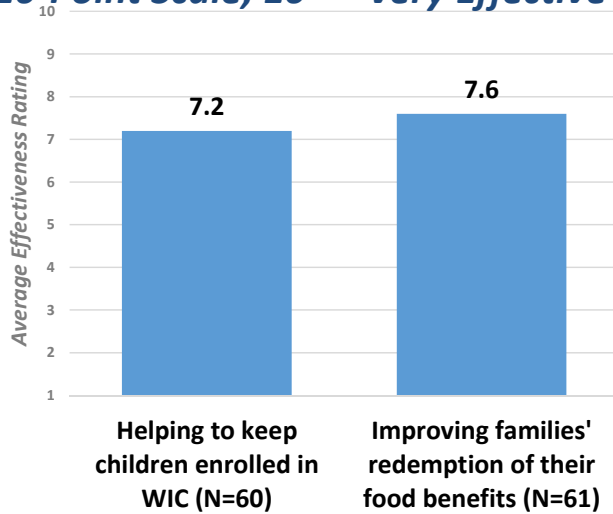
*How Successful WIC Staff Think GFP Activities Have Been at Their Programs (10-Point Scale, 10 = “Most Successful”)*



*“The practical learning either by the cooking classes or food tasting has been more successful at our program compared to the Pop-Up Tours, as I feel clients loose interest if we only talk and discuss, compared to hands-on learning. On the other hand if we do a real grocery store tour that might be more effective.” WIC nutritionist, Roxbury/South End WIC Program*

# Post-Pilot Staff Survey (cont.)

## Perceived Effectiveness of the GFP (10-Point Scale, 10 = "Very Effective")

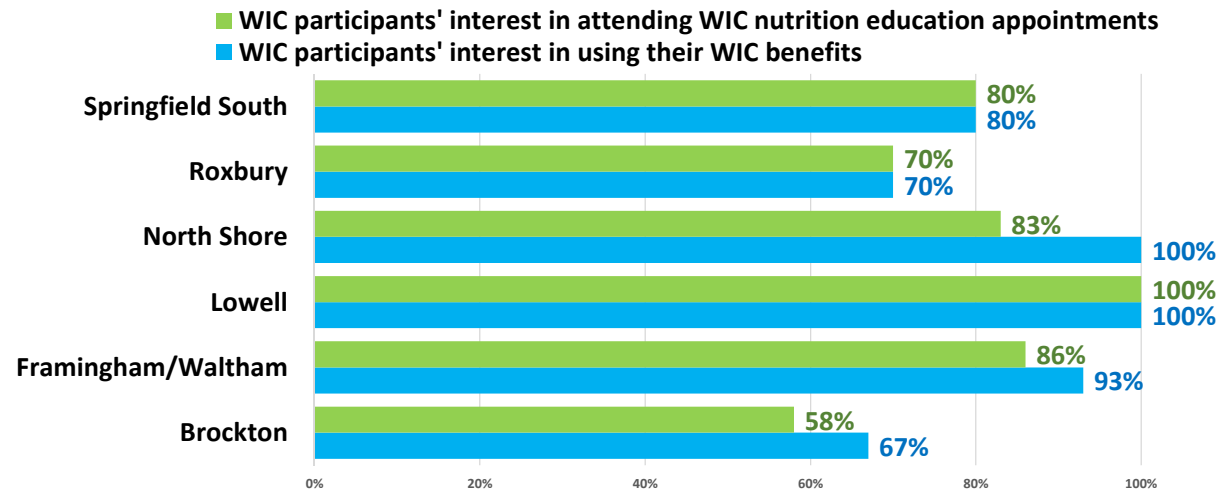


The majority of WIC staff at the pilot programs do think the GFP has had at least some impact on WIC participants' engagement with WIC:

- Willingness to sign up for activities, and actually showing up for those activities
- Redeeming their WIC benefits fully, making better shopping decisions, and cooking and eating WIC foods
- Staying with WIC throughout child's eligibility

All WIC staff surveyed think their programs will continue offering GFP activities, although some aren't sure how often

## Percent of Staff Reporting Increase in WIC Participants' Interest in Attending Nutrition Education Appointments and Using WIC Benefits (N=63)



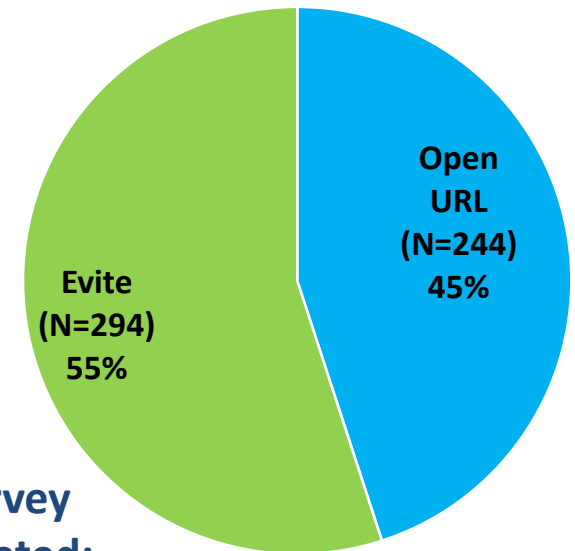
# Post-Pilot Participant Survey

## Online survey of N=538 WIC participants

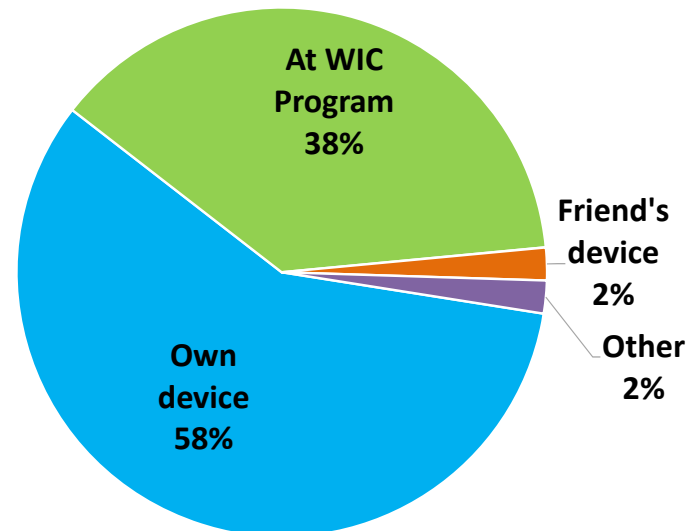
- 6,814 Evites (WIC provided email addresses)
- 1,288 “bounced” (undeliverable rate of 19%)
- Response rate for Evite sample = 4.3%
- Programs also given flyers and link for participants to use on site to complete survey
- Incentive for survey participation was a drawing for a GFP gift basket
- All six pilot programs are represented
- Spanish and English versions
- Results are qualitative

**NOTE: Sample over-represents WIC participants who had contact with and/or participated in GFP**

## How Participant Accessed Survey:



## Where Survey Was Completed:



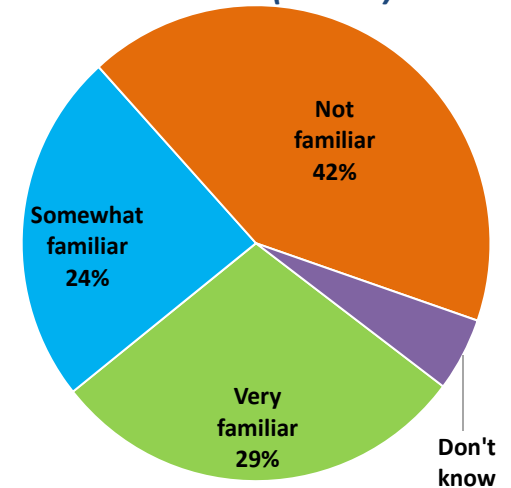
# Post-Pilot Participant Survey (cont.)

- 53% of participants surveyed are familiar with GFP

## Most found out about GFP through:

- Assigned to GFP by WIC nutritionist (41%)
- Watched a cooking demonstration program (35%)
- Tasted some food at a food tasting (35%)
- Nutritionist (23%) or some other WIC staff person (36%) talked to participant about GFP (23%)
- Saw a poster or flyer the WIC program (20%)
- GFP table at the WIC program (12%)
- Friend or family member told participant about GFP (9%)

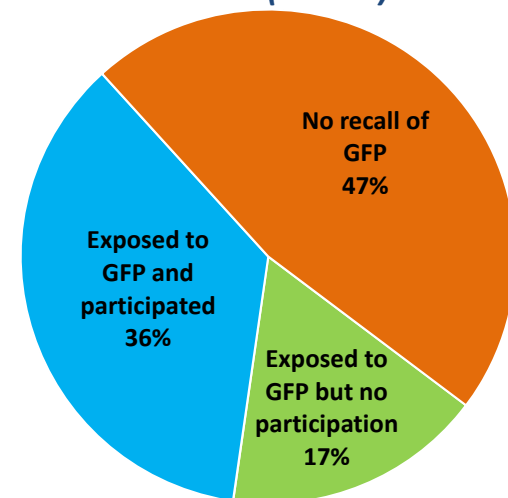
*Participant Familiarity with GFP (N=538)*



- **Participation in GFP activities:**

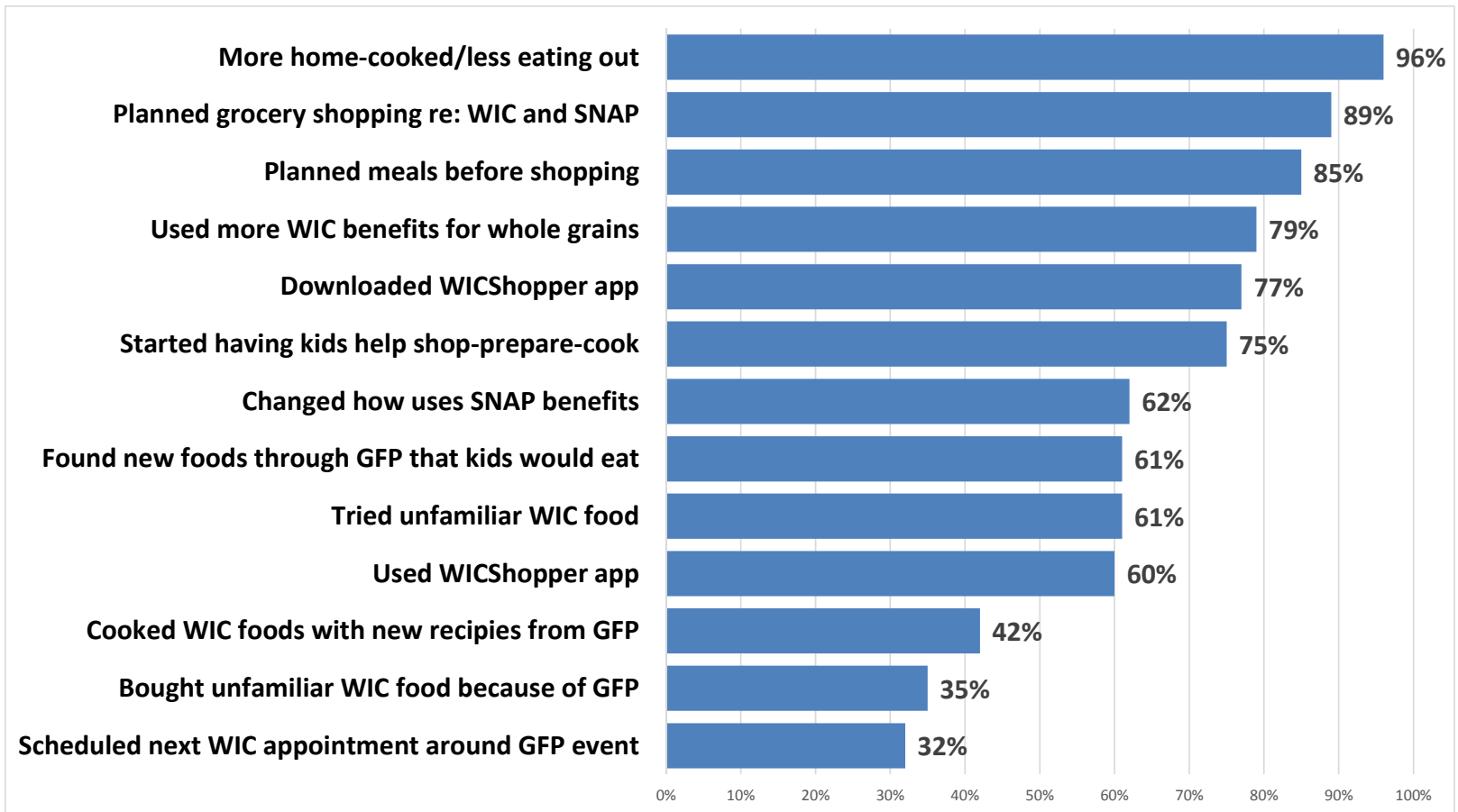
- Food demonstration (30%)
- Food tasting (29%)
- Cooking class (25%)
- Group about grocery shopping (6%)
- Using SNAP and WIC benefits together (5%)

*Level of Exposure to GFP (N=538)*



# Post-Pilot Participant Survey (cont.)

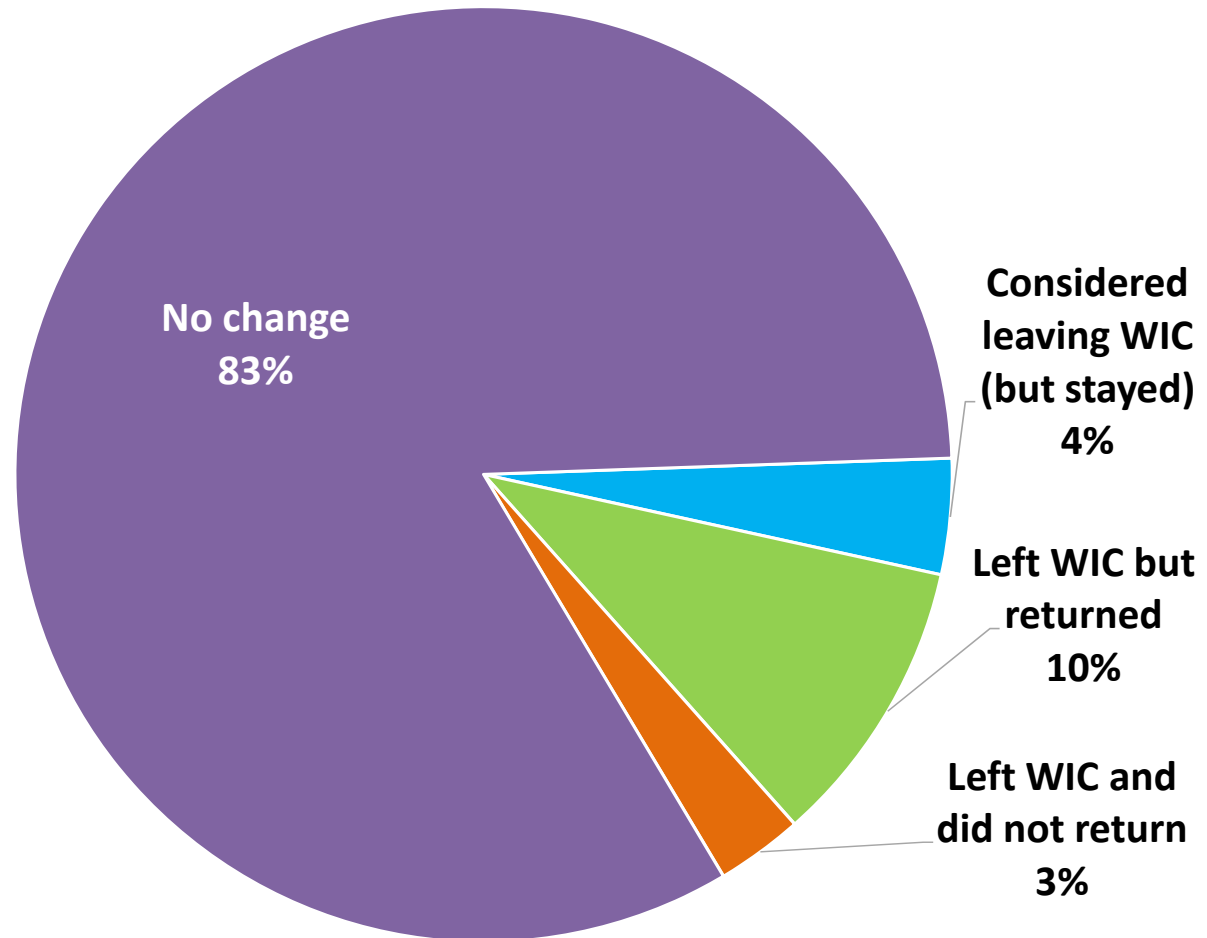
## Self-Reported Changes in Shopping, Use of WIC and SNAP Benefits, Meal Planning, Cooking Attributed to GFP



*N=538 except for questions involving SNAP, which were only asked of participants that receive SNAP benefits (N=292)*

## Post-Pilot Participant Survey (cont.)

### Self-Reported Retention in WIC Program in Prior Year (N=538)





# Post-Pilot Participant Survey (cont.)

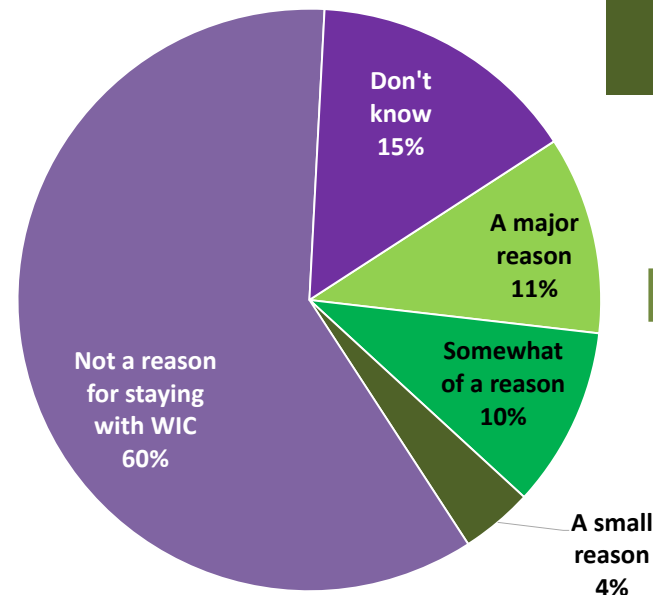
## Main Reasons for Leaving or Considering Leaving WIC (N=89):

- Child will soon exceed maximum age (19%)
- Too busy for WIC (16%)
- WIC is a hassle (12%)
- Difficulties with making or rescheduling appointments (11%)
- Transportation barriers (6%)
- Difficult to bring/manage children at WIC program (6%)
- Dislikes WIC foods and/or amount of benefit (8%)
- Eligibility will (or has) changed (8%)
- Had sufficient resources without WIC (6%) or SNAP is enough (3%)

## Main Reasons for Deciding to Stay with WIC (N=72):

- Need the assistance to afford food (39%)
- WIC is generally helpful, provides good assistance (22%)
- Access to healthy food for kids (22%)
- *WIC teaches about healthy food, healthy eating, and cooking (19%)*
- Formula costs money, and WIC helps greatly when have a newborn (15%)

## How Much Did GFP Influence Your Decision to Stay With WIC? Would You Say GFP Was:

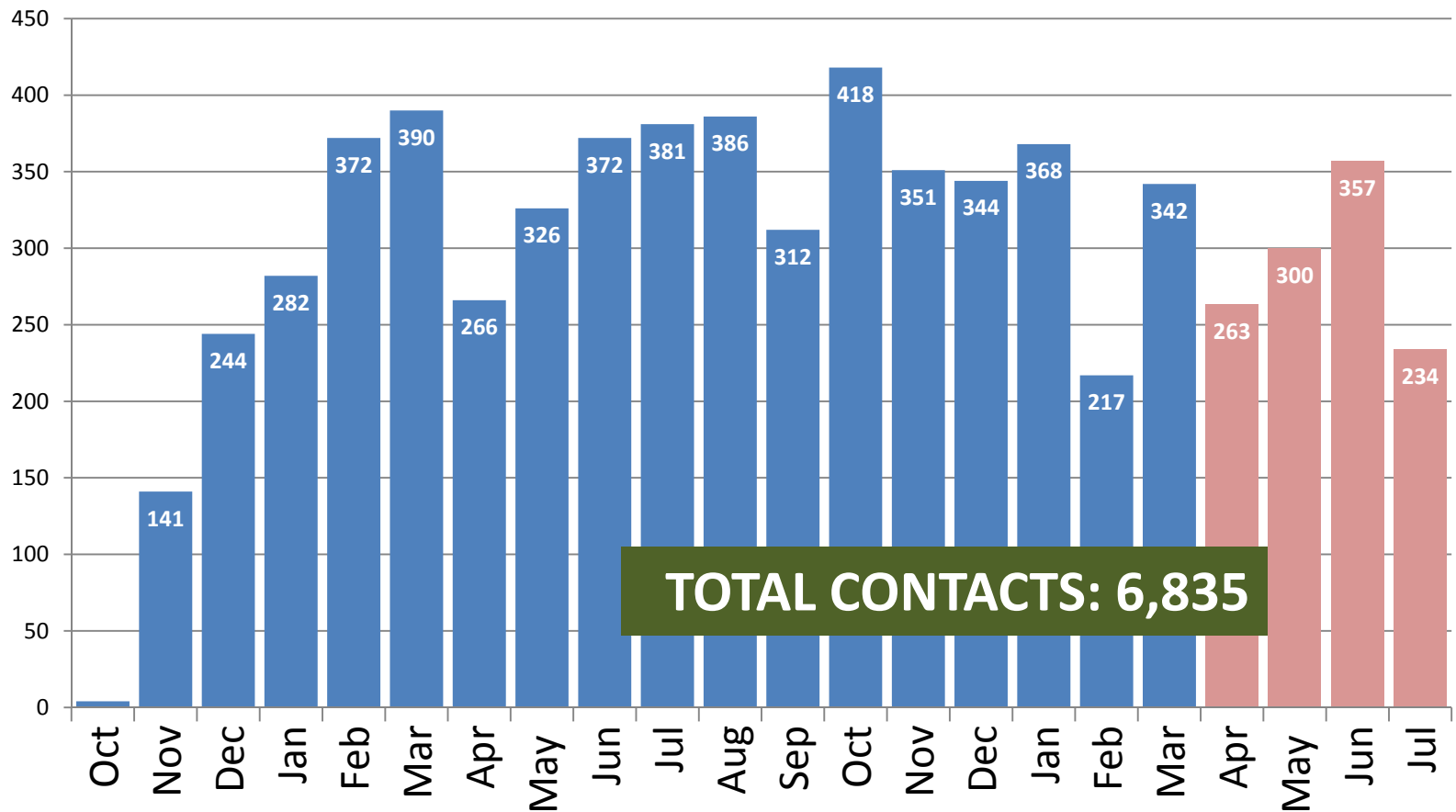


**WHY?**  
Interesting recipes  
Cooking new foods  
Better shopping  
WIC is great



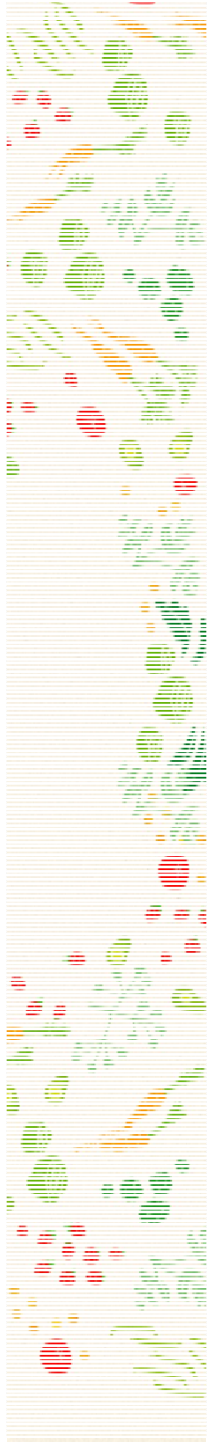
## A. To What Extent Did GFP Reach WIC Participants?

### GFP Contacts by Month – 10/2015 to 7/2017

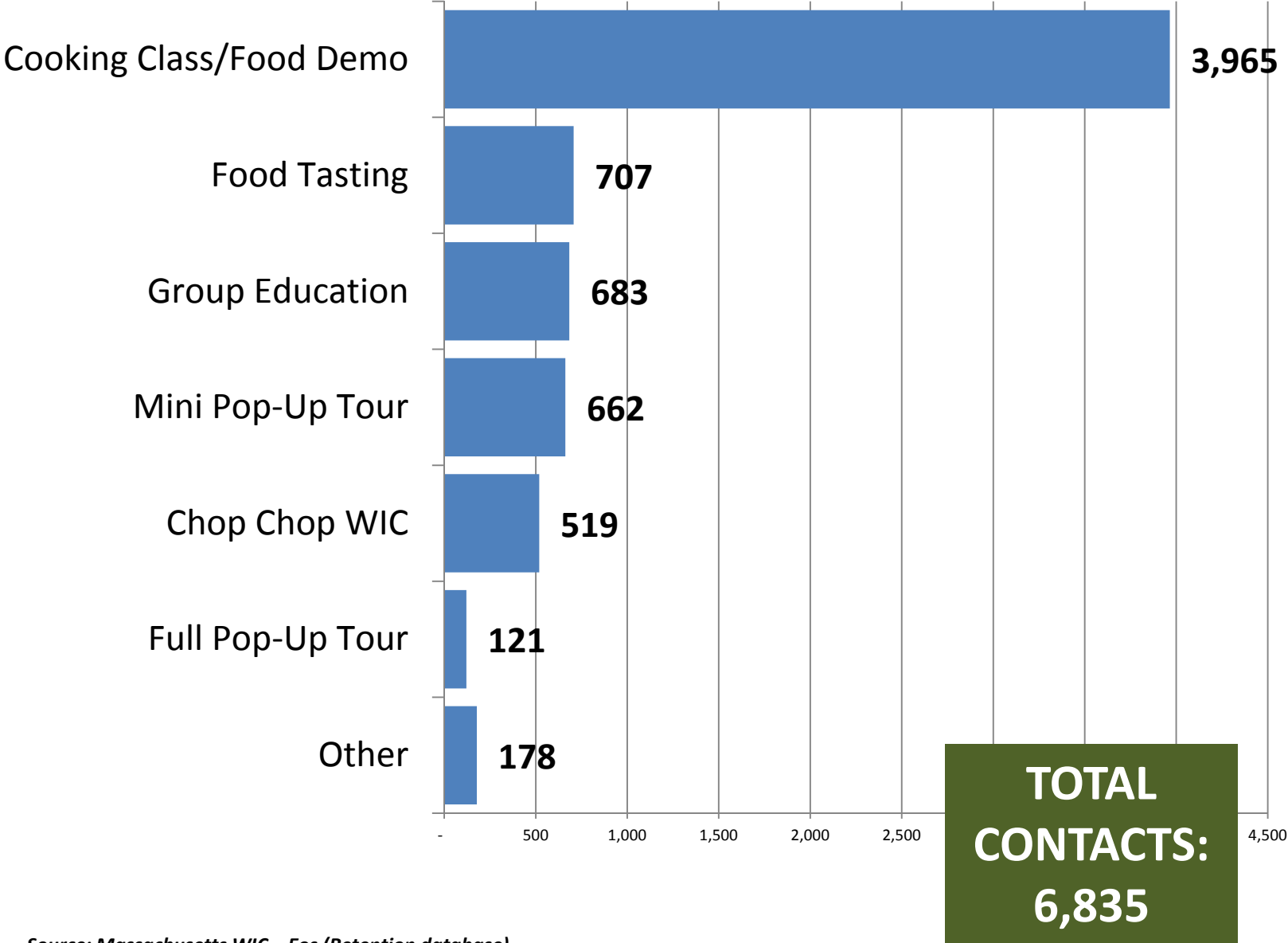


Source: Massachusetts WIC – Eos (Retention database)

- **9.5% of WIC participants were formally exposed to GFP**
- **12.3% had at least one person in household exposed to GFP**



# Formal GFP Contacts by Activity



Source: Massachusetts WIC – Eos (Retention database)

# WICShopper App Data

- Between November 2015 and February 2018, there were over **30,000** total recipe page views by MA WIC participants
- On average there were over **1,100** recipe page views per month



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# What Impact Did GFP Have on Child Retention?

## Definition of Child Retention for GFP Evaluation:




## The Results: Impact of the GFP on Child Retention

Group	Possible Months in WIC	Actual Months in WIC	Percent of WIC Benefit Time "Used"
Exposed to GFP	72,589	58,878	81.1%
Not exposed to GFP	525,078	276,059	52.6%
Household exposed to GFP	81,202	65,971	81.2%
Household not exposed to GFP	516,465	268,966	52.1%

*Exposed to GFP = GFP assigned as group education by nutrition staff, and recorded in Eos; represents 10% of individuals and 12% of households at pilot sites*

*Source: MA WIC – GFP Retention File (Eos), N=55,128*

## The Results: Impact of the GFP on Benefit Redemption



Food Category	EBT Records Analyzed	Child Exposed to GFP	Child Not Exposed to GFP	Point Difference
Breads/whole grains	N=177,694	65.5%	62.4%	3.1%
Fruits/veggies	N=196,331	85.7%	82.5%	3.2%
Legumes	N=213,981	68.0%	65.0%	3.0%
Yogurt	N=127,924	54.6%	52.5%	2.1%

*Source: MA WIC – GFP Redemption File (Eos)*



# GFP Rollout in Progress!

- Modifications made to recipe card layout based on feedback during pilot
- Twelve additional programs trained in spring of 2018, with a focus on cooking demos and group education
- GFP materials made available through MDPH WIC website
- Sustainability plans underway, including funding, technical assistance, and training





# Materials Available

**All GFP Materials are available here:**

<https://www.mass.gov/service-details/the-good-food-project>

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# Thank You!

- Local WIC pilot programs
- Cooking Matters
- Massachusetts Department of Transitional Assistance
- UMass Cooperative Extension
- Kara Ghiringhelli, Project Coordinator
- Market Street Research, Project Evaluator
- MA WIC state office team
- Countless students and dietetic interns
- USDA, FNS