

California Association of Food Banks

Produce Education Program



2015 Evaluation Report *Comparison of Key Findings*

2015 California Association of Food Banks PEP Evaluation Report

Summary Findings

Data Collection

The CAFB FY 15 evaluation plan called for the collection of 200 surveys from both the Intervention and the Control groups. Tables 1 and 2, below, show that the target numbers were achieved. Indeed, as noted in the tables, 200 intervention client interviews and 213 control interviews were collected during the 2015 survey period.

Table 1. CAFB PEP 2015 Intervention Client Interview Survey

Food Pantry	Food Bank	Response Count
1. Bakersfield New Life Center	Community Action Partnership of Kern County	20
2. Catholic Charities	Community Action Partnership of Kern County	16
3. El Sol Science & Arts Academy of Santa Ana	SHFB Orange	11
4. Fallbrook Food Pantry	Feeding America San Diego	17
5. Immanuel Presbyterian Church	L.A. Regional FB	11
6. La Purisima Church	SHFB Orange	23
7. Native American United Methodist Church	SHFB Orange	13
8. Newport Church	SHFB Orange	20
9. Nineveh Outreach	SHFB Stanislaus/San Joaquin	13
10. Pentecostal Church in Lamont	Community Action Partnership of Kern County	13
11. People's Self-Help Housing	Food Bank Coalition San Luis Obispo	19
12. St. Anne Catholic Church and Shrine	Westside Santa Monica	12
13. St. Vincent de Paul Ministry (Modesto)	SHFB Stanislaus/San Joaquin Co	12
Total		203

Table 2. CAFB PEP 2015 Control Client Interview Survey

Food Pantry	Food Bank	Response Count
1. Anaheim Vineyard Christian Church	SHFB Orange	35
2. Calvary Community Church	SHFB Stanislaus/San Joaquin	16
3. Isaiah's Sober Living	Community Action Partnership of Kern County	16
4. Islamic Center	L.A. Regional FB	24
5. Ramona Food and Clothes Closet	Feeding America San Diego	17
6. Second Baptist Church	SHFB Stanislaus/San Joaquin	17
7. SOVA	Westside Santa Monica	28
8. Stepping Higher	Feeding America San Diego	16
9. Loaves and Fishes	Food Bank Coalition San Luis Obispo	29
10. World of Pentecost	Community Action Partnership of Kern County	15
Total		213

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Demographic Profile

Table 3 shows that there were statistically significant differences between the intervention and control groups among four of the five racial/ethnic groups. Indeed, half of the interviews among the intervention group were conducted in Spanish compared to only one-quarter among the control group. The racial/ethnic differences, among the two groups, are not significant, as they share the common experience of being food pantry recipients. There were no significant differences in the mean age of both groups. However, nearly three-quarters of the Intervention group households had children under age 18 compared to about half of the Control Group. This is not too surprising given that Latinos in California have the highest total fertility rate among women of child bearing age¹ Both groups had virtually the same number of people over age 18 in their home.

Table 3. Demographic Profile

	Intervention N=200	Control N=213	p Value
Race/ethnicity			
White/Caucasian	19.1%	32.8%	0.024*
Hispanic/Latino	69.6%	56.9%	0.009*
Black/African American	5.7%	6.9%	NS
Native American/Indian	1.5%	4.4%	0.000*
Asian/Pacific Islander	6.7%	4.4%	0.001*
Other Demographic variables			
Survey interviews conducted in Spanish	51.1%	26.2%	0*
Primary language Spanish	60.3%	35.9%	0*
Female participants	80.0%	71.6%	0.046*
Participants' mean age	49.0	50.8	--
Households with children under age 18	70.6%	54.4%	0.000*
Total number of children under age 18	338	280	--
Mean number of children per household	1.72	1.33	--
Households with people age 18 or older	98%	98.1%	NS
Total number of people age 18 or older	494	496	--
Mean number of people age 18 or older	2.48	2.35	--

*The result is statistically significant at $p < 0.05$. NS=Result not statistically significant

¹ State of California, Department of Public Health, Birth Records. TABLE 2-2. General Fertility Rates, Total Fertility Rates, and Birth Rates By Age And Race/Ethnic Group Of Mother, California, 2010 - 2014. (By Place of Residence). Available at <http://www.cdph.ca.gov/data/statistics/Documents/VSC-2014-0202.pdf>.

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Summary Findings

MyPlate Awareness, Knowledge, and Use

By design, participants in the Intervention group were only asked to participate in the survey if they remembered hearing about MyPlate from one of the food pantry educators in the last four months. Therefore, 100% of the Intervention group participants indicated they recalled hearing about MyPlate. By comparison, as shown in Table 4, the Control group was significantly less likely to hear about MyPlate for feeding their family.

Table 4. MyPlate awareness

	Intervention N=200	Control N=213	P Value
Remembered hearing about MyPlate from the educators at the food pantry	100%	Not asked	--
Respondents that heard about MyPlate for feeding their family	100%	38.5%	0.000*

*The result is statistically significant at $p < 0.05$. NS=Result not statistically significant

All 200 intervention respondents, and the 78 control respondents who recalled hearing about MyPlate, were asked what they remembered about how to use MyPlate. The respondents were not prompted with possible answers.

As shown in Table 5, at least 50% of the Intervention group was significantly more likely to remember the five different food groups and to make half their plate fruits and vegetables. There were no significant differences between the two groups in the responses related to whole grains, lean protein, low-fat dairy products, or balanced portions.

Table 5. MyPlate knowledge

Question: What nutrition information do you remember about how to use MyPlate for feeding yourself or your family?	Intervention N=200	Control N=78	P Value
1. Did not remember or know how to use MyPlate	11%	17.9%	NS
2. MyPlate is made up of 5 different food groups	50.0%	33.3%	0.012*
3. Make half your plate fruits and vegetables	51.5%	37.2%	0.032*
4. Make at least half your grains whole grains	19.5%	21.8%	NS
5. Add lean protein	23%	24.4%	NS
6. Eat low-fat dairy products	15.5%	16.7%	NS
7. Eat from the 5 food groups throughout the day	25.5%	28.2%	NS
8. Eat balanced meals or portions	34.0%	34.6%	NS

*The result is statistically significant at $p < 0.05$. NS=Result not statistically significant

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With the exception of eating low-fat dairy food, the intervention group was significantly more likely to have used MyPlate knowledge to prepare more fruits and vegetables for their families and for eating more fruits, low fat dairy, lean meats, whole grains, and balanced meals than the control group.

Table 6. MyPlate Use

<i>Question: How have you used MyPlate to prepare food for yourself or for your family?</i>	Intervention N=200	Control N=213	P Value
1. No, I have not used MyPlate	13.1%	68.3%	0*
2. Prepare more vegetables	58.6%	20.5%	0*
3. Eat more fruit	46.5%	18.0%	0*
4. Eat more low fat dairy food	13.6%	8.3%	NS
5. Eat more lean meats	24.2%	7.3%	0*
6. Eat more whole grains	19.7%	8.8%	0.002*
7. Make sure they eat from the 5 food groups throughout the day	21.2%	9.8%	0.001*
8. Eat balanced meals/portions	27.3%	1.0%	0.000*

*The result is statistically significant at $p < 0.05$. NS=Result not statistically significant

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Recipe Card Use

Frequency analysis of recipe card responses found that at least one recipe card was used by each person in the Intervention group. The most commonly used recipe cards were those for cabbage, carrots, corn, sweet potatoes, and broccoli. Overall, among those who received recipe cards, 75% either made the exact recipe, modified or changed the recipe, or did both.

Table 7. Use of featured produce recipes by Intervention Group

Featured Produce and recipe card	Response among those who got recipe cards				
	Got this recipe card (N=200)	Made the exact recipe	Modified or changed the recipe	Made exact recipe and also modified the recipe	Did not make/modify recipe
1. Cabbage	48%	21%	43%	14%	21%
2. Carrots	44%	18%	39%	15%	28%
3. Corn	32%	25%	34%	12%	28%
4. Sweet potatoes	25%	30%	40%	6%	24%
5. Broccoli	22%	22%	50%	11%	17%
6. Summer squash	10%	30%	45%	25%	0%
7. Bell peppers	8%	31%	38%	6%	25%
8. Celery	8%	0%	38%	13%	50%
9. Honeydew melon	8%	25%	31%	19%	25%
10. Tomatoes	8%	33%	33%	0%	33%
11. Pears	6%	58%	17%	0%	25%
12. Watermelon	4%	25%	13%	0%	63%
Total	-	24%	39%	12%	25%

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Where Participants Get Their Produce

The Intervention and Control group were equally likely to get their produce at a food pantry. Indeed, a few participants stated that they got produce at more than one pantry during any one month. The Control group was significantly more likely to get produce at a grocery store than the Intervention group.

Table 8. Where participants got there produce

<i>Did you or your family eat any of the following fruits or vegetables in the last 4 months? If yes, where do you get each fruit or vegetable?</i>	Intervention Total responses n=650	Percent	Control Total responses n=696	Percent	P Value
1. Got it here	476	73%	486	76%	NS
2. Grocery store	278	43%	342	54%	0.019*
3. Farmer's market	32	5%	25	4%	NS
4. Street vendor	7	1%	5	1%	NS
5. Friends/family	29	4%	14	2%	0.011*
6. Other	49	8%	25	4%	--

Above measurements are based on a proportion of the total responses to each of the featured fruits and vegetables located in this question (same produce as those shown in Table 7).

As noted in Table 9, Among both the intervention and control groups, carrots, cabbage, broccoli, corn, and sweet potatoes were the produce items most commonly obtained from a pantry..

Table 9. Produce most commonly obtained from pantry

<i>Fruits and vegetables received by all survey participants from their pantry ("Got it here" response)</i>	Intervention N=200	Control N=213	Total Recipients
1. Carrots	56%	74%	320
2. Cabbage	51%	45%	273
3. Broccoli	20%	30%	152
4. Corn	33%	22%	148
5. Sweet potatoes	25%	10%	111
6. Celery	8%	12%	78
7. Tomatoes	8%	19%	73
8. Bell Peppers	3%	9%	69
9. Pears	9%	4%	48
10. Honeydew Melon	12%	0%	37
11. Summer Squash	9%	0%	24
12. Watermelon	6%	2%	18

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Likelihood of Buying Produce Obtained at Pantry and Use of Produce

When asked how likely they were to buy their pantry's featured produce in the future, Table 10 shows that across all types of produce, all respondents were more likely to buy produce than to not buy.

Table 10. Likelihood of Buying Featured Produce

Featured Produce	Intervention Group Very and Somewhat Likely to Buy Produce	Control Group Very and Somewhat Likely to Buy Produce
Bell peppers	88%	78%
Broccoli	98%	83%
Cabbage	80%	77%
Carrots	76%	84%
Celery	87%	83%
Corn	82%	81%
Honeydew melon	68%	67%
Pears	93%	82%
Summer squash	65%	^
Sweet potatoes	70%	78%
Tomatoes	80%	96%
Watermelon	54%	100%

^summer squash not distributed at control sites

Nearly two-thirds, of both the intervention and control groups said they are very likely to buy the produce they receive at the food pantry. Overall, 81% of both groups were very likely or somewhat likely to buy the featured produce.

Table 11. Overall Likelihood of Buying Featured Produce

Response	Intervention Total responses n=650	Control Total responses n=696	P Value
Very Likely	62%	61%	NS
Somewhat Likely	18%	21%	NS
Total	80%	82%	NS

*The result is statistically significant at $p < 0.05$. NS=Result not statistically significant

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Among all respondents, there were no significant differences between the two groups, regarding their reasons for not buying the featured produce.

Table 12. Reasons for Not Buying Featured Produce

Group	Too expensive	Don't Like	Can get at pantry	Other reasons
Intervention	3%	3%	9%	1%
Control	5%	6%	6%	1%

When asked what they do with the fruits and vegetables obtained from their pantry, the Control group was significantly more likely to eat all of the produce compared to the Intervention group. However, the Control group was more likely to throw away produce that spoiled or expired. There were no significant differences in giving food away, freezing the produce, or preserving the food, between the two groups.

Table 13. What people do with the produce they obtain from their pantry

	Intervention N=200	Control N=213	P Value
1=Eat all of it	74.5%	86.3%	0.003*
2=Give some to friends, other family, or neighbors	34.5%	43.6%	NS
3=Freeze some if it raw	18.5%	24.2%	NS
4= Cook and preserve or freeze some if it	22.5%	29.9%	NS
5=Throw some of it away if it spoils or expires	12.5%	20.9%	0.0235*

*The result is statistically significant at $p < 0.05$. NS=Result not statistically significant

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CONCLUSIONS

MyPlate Awareness

The fact that only two out of five Control group participants recalled hearing about MyPlate is not too surprising, given that the 2014 CAFB study found that participants had heard about MyPlate from other sources such as medical settings, their child's school, nutrition classes, television shows, and WIC. In effect, as shown in the previous CAFB studies, the MyPlate message is being heard from sources other than food pantry educators. However, this should not deter Food Banks from continuing to provide the PEP style nutrition education at pantries, as the study showed that the education reinforced fruit and vegetable consumption and recipe use.

Outcome 1: Knowledge about the PEP nutritional message

The Produce Education Program (PEP) has three key messages:

1. MyPlate is made up of 5 food groups: fruits, vegetables, grains, protein, & dairy.
2. Make half of your plate fruits and vegetables.
3. Try the fruit or vegetable and the recipe talked about in this lesson.

The 2015 PEP evaluation results found that at least 50% of the Intervention group was significantly more likely to remember the five different food groups and to make half their plate fruits and vegetables. In effect, they recognized the nutritional value, and corresponding health benefits of utilizing the featured produce as a significant portion of their meals. However, there were no significant differences between the two groups in knowledge related to whole grains, lean protein, low-fat dairy products, or balanced portions. This may be due to the pantry nutrition educators' emphasis on fruit and vegetable consumption and recipe preparation, plus the availability of a featured fresh produce on the day of the PEP presentation. Combined, this may have had a stronger impact on participants' knowledge about produce than the MyPlate messages about whole grains, dairy, and lean protein. Working with the food banks to train the pantry educators in new ways to reinforce knowledge in those latter areas is a possible area for expansion.

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Outcome 2: Prepare and consume featured produce

The findings showed that, with the exception of eating low-fat dairy food, the Intervention group was significantly more likely to have used MyPlate knowledge to prepare healthier foods for their families. For example, nearly 60% of the intervention group prepared more vegetables for their families to consume and nearly 50% were giving their families more fruit. These statistically significant findings definitely show the value of the PEP education.

For Intervention Group participants, another indicator of produce preparation and consumption was recipe utilization. Overall, among those who received recipe cards for a featured produce item, 75% used them to make the exact recipe, modify or change the recipe, or did both. In effect, the PEP participants utilized their recipes with the respective featured produce.

Outcome 3: Purchase featured produce at retail venues

Overall, approximately 80% of both the intervention and control respondents were very likely or somewhat likely to buy the featured produce. Only 9% of the intervention group and 6% of the control group would not buy produce because they can get it from a pantry. In addition, approximately 80% of both the intervention and control groups eat all of the produce they receive from their pantry. In effect, most food pantry clients are not only eating, freezing, or preserving the produce they receive from their pantry; they are also purchasing produce at their local retail outlets.

Overall, the findings show that the PEP participants had more awareness and knowledge about using MyPlate to feed their families than the control group, were utilizing the featured recipes to prepare healthier MyPlate-based meals for their families, were eating nearly all of the produce they received from their pantry, and were very willing to purchase the featured produce.