

# Colorful Choices Nutrition Challenge: 2016 Employee Results

## Executive Summary:

### Overview

The 2015 Well-being Assessment of City and County of San Francisco employees highlighted healthy behaviors as the number one area for improvement. The average employee Health Behavior score was 57 out of 100 compared to the average for California of 67. Healthy eating is one of the key factors driving the Healthy Behavior score. 80% reported fewer than 5 servings of fruits and vegetables each day.

The Employee Well-being Program created the *eat better, FEEL BETTER* campaign to encourage produce consumption. Activities within the campaign were designed to educate all employees about the benefits of produce consumption, support those ready to make a change, and facilitate cultural changes that will provide ongoing support. One component of that campaign was Colorful Choices, a six-week nutrition challenge to consume at least 5 servings of fruits and vegetables per day.

### Participation

- 1,972 employee participants, 52 employee family members
- 170 employee teams
- 96% of City and County of San Francisco departments had teams

### Engagement

- 1162 (54%) actively logged their produce
- 245 (11%) completed the pre and post survey

### Program Outcomes

Among the 54% of participants that actively logged their produce points:

- 38% increased produce consumption
- 34% achieved 8 or more produce points (approximately 5 or more servings)
- 17% achieved 6-7 produce points (approximately 4 servings)
- 16% achieved 4-5 produce points (approximately 3 servings)

Among the 245 participants who completed the evaluation, there was an increase in the number of people who had positive responses to all of the following questions:

- My workplace has a positive social climate that encourages healthy eating (7% increase)
- I have the energy needed to do the things I enjoy (9% increase)
- I am ready to achieve or maintain a healthy diet (16% increase)
- Number fruit servings (.7 serving/day increase)
- Number of vegetable servings (.5 serving/day increase)

### Program Evaluation

- 67% of evaluation participants reported coworker participation as motivating
- 55% reported that tracking daily was the program feature that most helped in increasing their fruit and vegetable intake
- 29% reported that the ability to be on a team was the most helpful social feature
- 22% reported that the ability for coworkers to participate was the most helpful social feature

### Recommendations

1. Encourage joining a team.
  - Participants who were on a team recorded 5 times the amount of produce of individual participants.
2. Encourage downloading the mobile app.
  - Participants who downloaded the mobile app recorded 2 times the amount of produce of those who didn't.
3. Continue weekly contests.
  - The weekly contests where participants submitted stories, recipes, photos, and more were beneficial in providing us with qualitative information of the participants' experience.
4. Adjust the awarding of prizes and communicate widely.
  - Many were not aware of the various prizes that were available for participants and teams that actively logged, increased produce consumption, and achieved 5 servings of produce per day.
  - Not everyone who registered logged their points, thus providing an incentive (e.g. t-shirt) may encourage more people to actively participate.
  - 79% of Champions reported that doing a weekly raffle specifically for those who tracked, would encourage higher rates of tracking. 45% also suggested that HSS send out weekly reminders to people who registered.
5. Encourage teams.
  - Champions appreciated teams formed in their departments. They noticed increased word of mouth marketing and accountability among those who formed teams.

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## Background

The 2015 Well-being Assessment of City and County of San Francisco employees highlighted healthy behaviors as the number one area for improvement. The average employee Health Behavior score was 57 out of 100 compared to the average for California of 67. Healthy eating is one of the key factors driving the Healthy Behavior score.

- 45% reported that they had not eaten healthy the previous day (i.e. such as eating the number of calories that allows them to maintain a healthy weight and eating a diet that is low in fat)
- 80% reported fewer than 5 servings of fruits and vegetables each day

However, employees expressed interest in improving access to healthy foods:

- 75% indicated they were planning to eat more fruits and vegetables in the next 6 months.
- 83% reported having access to fresh fruits, vegetables, and other low-fat foods when they are at work

Research has shown that increasing fruit and vegetable consumption reduces the risk of many chronic diseases including heart disease and stroke, and can be protective against some cancers (USDA). Many fruits and vegetables contain nutrients that are under-consumed in the United States such as folate, magnesium, potassium, dietary fiber, and vitamins A, C, and K (USDA). Most fruits and vegetables are relatively low in calories so adding nutrients from produce to your diet instead of higher calorie foods can also help manage body weight (USDA).

Studies have shown positive results when employers provide and support wellness programs such as a nutrition initiative. These studies show a decrease in absenteeism, increase in productivity, and increase in retention, which leads to organizational savings (Parks). Providing these programs also show employees that their employers are concerned about their health and well-being, which improves their attitude towards the organization and increases job satisfaction (Parks). These programs also result in long-term impacts such as a decrease in healthcare costs. (Parks).

The US Department of Agriculture recommends 5 or more servings of fruits and vegetables every day. People are encouraged to eat a variety of vegetables especially dark-green, red, and orange vegetables, in addition to beans and peas (USDA). Previous nutrition programs for adults have resulted in a produce intake increase of .1 to 1.4 servings per day (Pomerleau).

In an effort to support the employees interested in making changes, educate all employees about the benefits of produce consumption, and provide resources to facilitate change, the Employee Well-being Program created the *eat better, FEEL BETTER* campaign. One component of that campaign was Colorful Choices, a six-week challenge to consume at least 5 servings of fruits and vegetables.

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2. Pomerleau J, Lock K, Knai C, McKee M. Interventions Designed to Increase Adult Fruit and Vegetable Intake Can Be Effective: A Systematic Review of the Literature. *J Nutri* 2005; 135:2486-95. <http://jn.nutrition.org/content/135/10/2486.long>

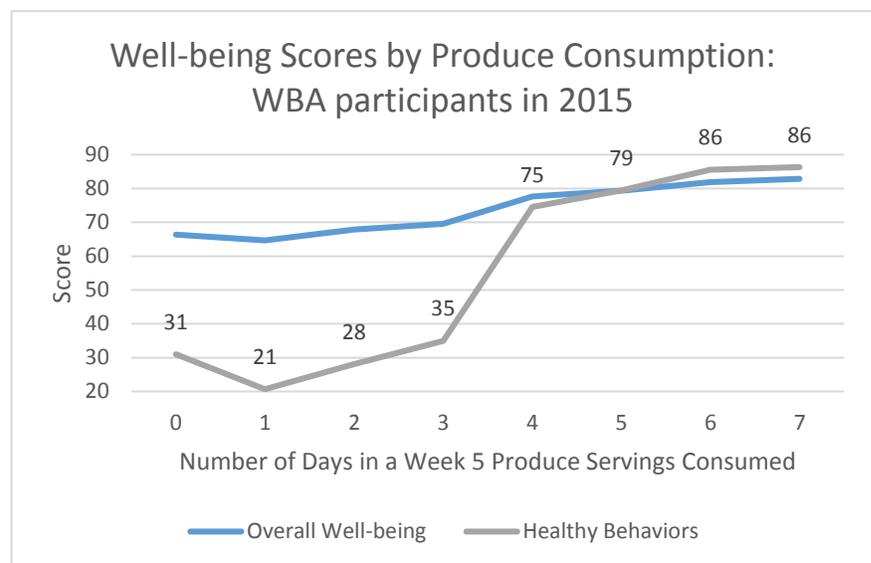
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## eat better, FEEL BETTER Campaign Overview

The recommendation for produce consumption is 5 servings every day. In the 2015 Well-being Assessment, participants who met the recommendation on fewer than 4 days a week had drastically lower Healthy Behavior scores and averaged 13 fewer points in their overall Well-being Score.

### Colorful Choices Background

Colorful Choices is a simple nutrition program that helps to create healthy eating habits and healthier choices. The program provides participants with a platform to track their produce consumption for 6 weeks, weekly emails containing tips and recipes, access to daily tips and recipes on the website and mobile app, and the opportunity to participate with family, coworkers, and fellow retirees. There were weekly opportunities to win a prize for participating in the program through various contests. In addition, participants who tracked daily, increased their produce consumption, or achieved 5 or more servings of fruits and vegetables a day were eligible for prizes.



### Survey Data

Among participants who completed the Colorful Choices evaluation, over 35% reported receiving tips as the most helpful educational resource. Following tips, over 25% of participants agreed that recipes were the most helpful resource. Participants commented:

- *“I felt like I was getting good health information and helpful advice about choosing and preparing fruits and vegetables.”*
- *“I liked how the site had tips about how to pick fruits and vegetables.”*
- *“I learned so much and got a lot of new ideas and the recipes were so great. Lots of new ways to eat and drink fruits and vegetables.”*

### Educational Resources

For individuals who may not have participated in Colorful Choices, a variety of efforts were made to provide education about produce consumption. Educational resources were distributed through the

HSS website, e-news, city-wide emails, and department bulletin boards. These resources included various handouts that encouraged fruit and vegetable consumption, tips, and recipes. The handouts included ways to make eating fruits and vegetables easier such as tips to help you eat more fruits and vegetables, overcoming eating challenges for seniors, educational games and supermarket activities for kids, and fresh ways to prepare fruits and vegetables. There were also resources on affordable options such as how to shop smart and save, where to find a farmer's market, what to buy that is in season, how to start a home garden, and how to stretch your produce dollars by knowing how to store them. Additionally, there were recipes on cooking light, how to cook vegetables for the best flavor, recipes for kids, and quick, soft, and easy meals for seniors.

### **Champion Training**

Champions were trained on how to raise awareness and educate employees about the *eat better, FEEL BETTER* campaign and its goals. Champions learned from research that making a commitment, tracking behavior for 6-12 weeks, and social support are important factors in creating a healthy habit. Champions also learned about the health benefits of produce consumption such as increased energy, helping to manage weight, and improving heart and digestive health. During the training, they listed some challenges that people may have when trying to consume more fruits and vegetables and brainstormed possible solutions to those challenges.

(Link to Champion Training: <http://www.myhss.org/champion/ColorfulChoices.html>)

Champion Notes:

- 74% of Champions used passive awareness marketing to raise awareness of the *eat Better, Feel Better* campaign through bulletin board materials provided by HSS.

### **Champion Bring Activities Onsite**

Champions were provided training and resources to offer other programs that makes it easier for people to consume fruits and vegetables. Programs included onsite activities such as coaching and seminars. Employees had the opportunity to work with a health coach to set personal healthy eating goals and work with the coach to reach those goals during 3 sessions that took place over 6 weeks. Employees also had the opportunity to attend 45-minute seminars on topics related to healthy eating, physical activity, and stress and time management.

- Champions hosted 55 seminars between April to August on topics related to healthy eating, physical activity, and stress and time management.
- These events were sponsored by 16 departments.
- The most popular topics were Kitchen Medicine and the Food Demonstration. Additionally,
- Champions hosted 9 coaching days.

### **Champions Create a Culture**

- 86% of Champions felt that Colorful Choices was a step in the right direction to encourage healthy eating. 0% disagreed with this statement.

Champions were trained and given resources on how to create a culture that encourages people to share healthy recipes that include fruits and vegetables. Champions could implement activities that included recipe sharing with food such as potlucks, daily treats, and taste testing or cook off; recipe sharing without food such as recipe of the week, themed recipe shares, department cookbook, and favorite websites; and implementing themed activities such as random food and vegetable selection, solve the problem, make a meal, and fruit and veggie groups. Champions also learned how to increase access to fruits and vegetables by bringing them into the workplace. They learned how to

implement Lunch Club, Breakfast Club, Snack Club, Farmers Market Trips and Community Supported Agriculture, and Fresh Fridays where everyone is encouraged to bring fresh produce into a meeting or group breakfast, lunch, or snack.

- Champions reported that recipe shares, potlucks, and smoothie days were very popular as worksite engagement activities.
- *“We hosted events where we made lunch together. We made salads that consisted of produce from different employees”.*

**Champions Recognize Healthy Choices**

Champions were provided training and resources to recognize employees for consuming fruits and vegetables and to celebrate their produce consumption achievements. The recognition program was titled “High 5 for Getting 5” and Champions were given various ideas on implementation. The High Five was an image of a hand that could be printed out and given to anyone who is seen eating fruits or vegetables in the office or for participation in an event such as recipe sharing, seminar, or coaching. Champions could create a Wall of Fame that recognizes people who were seen eating fruits or vegetables at work and those recognized could share quotes, tips, or success stories to share on the bulletin board.

**Colorful Choices Participation**

Colorful Choices had 2,024 employee and family member participants from the City and County of San Francisco, Unified School District, City College, Superior Courts. There were 114 retiree and retired family member participants. There were 170 employee teams and 4 retiree teams. Teams may have members of different member types.

<b>6HSS Member Group</b>	<b>Individual Participation</b>	<b>Percent on Team</b>	<b>Number Teams</b>
City and County Employees	2039	41%	167
Unified School District Employees	39	10%	3
City College Employees	<30	50%	1
Superior Courts Employees	<30	50%	1
Family Members of Employees	52	54%	25
Retirees	101	13%	4
Family Members of Retirees	13	54%	3

**Reason for Participation**

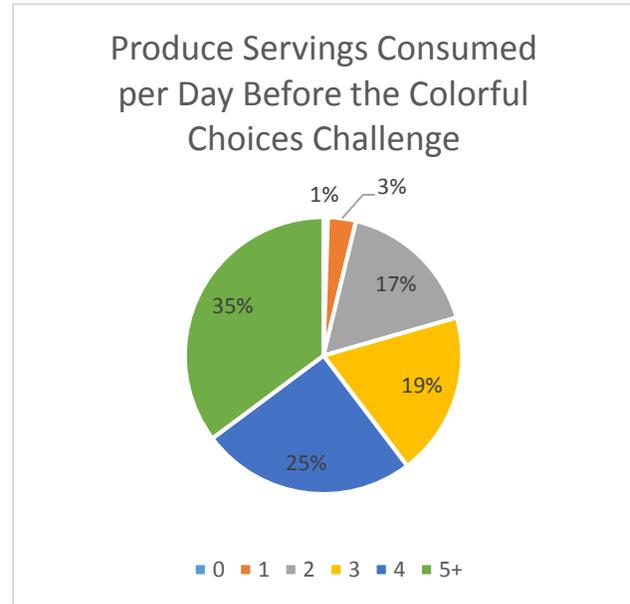
- 30% of participants reported their main reason for participating in the Colorful Choices program was because they wanted to eat better to help manage their weight.
- 20% of participants wanted to eat better so they could have more energy.
- 14% of participants wanted to eat more fruits and vegetables and thought tracking their intake would help

### Produce Consumption Before Colorful Choices

Employees who did not meet the recommendations of fruit and vegetable intake (recommendations are at least 2 servings of fruit per day and at least 3 servings of vegetables per day) were the target population for this intervention.

- 65% of participants not consuming 5 servings of fruits and vegetables.
- 61% of participants were not meeting the fruit goal.
- 65% were not meeting the vegetable goal.

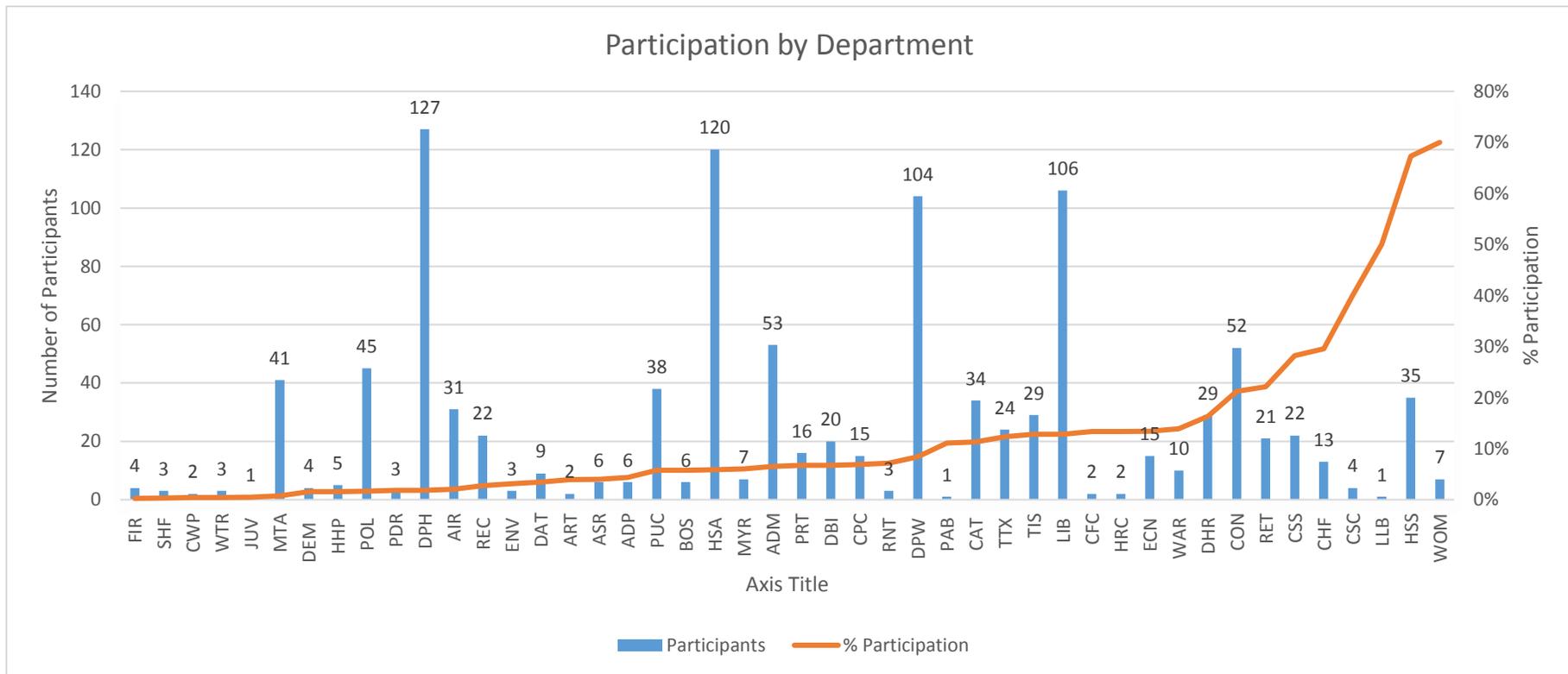
Compared to the US, Colorful Choices participants consume slightly more produce.



Note: The remainder of this report focuses on CCSF participation.

### Department Participation

96% of CCSF departments had participants, surpassing the participation goal of 85%. Participation from each department ranged from 0% to 70%.

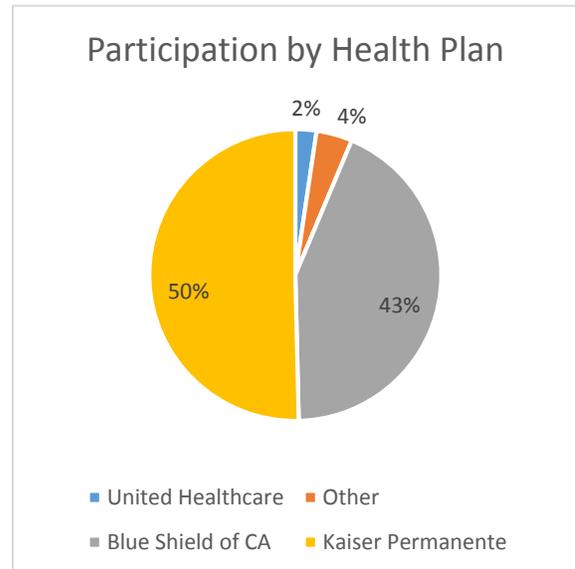
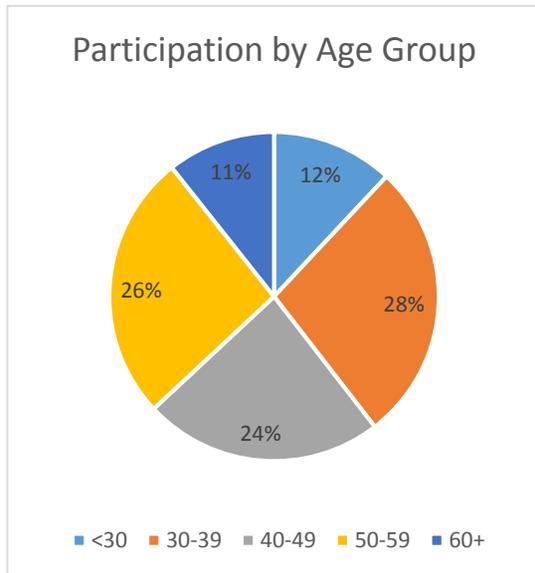
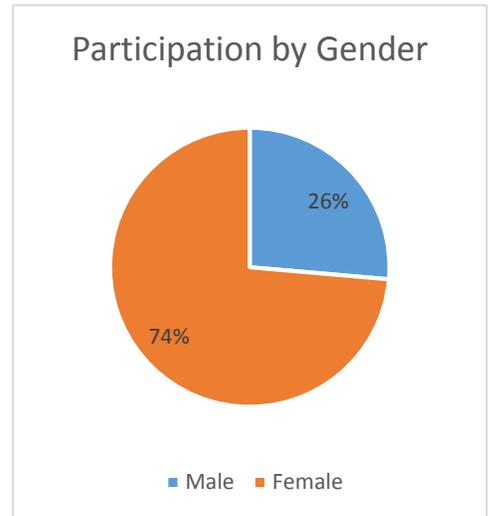


**Participant Characteristics**

Participation by gender was not in line with the demographic of CCSF membership. About three-quarters of the participants were female and only one-quarter were male. CCSF membership is more evenly split in terms of gender.

Participation by age group was representative of CCSF membership with about 25% each in their 30s, 40s, and 50s, and 25% less than 30 and over 60 years old.

Participation by health plan was also representative of CCSF membership with about half with Kaiser Permanente, slightly less than half with Blue Shield, and a small percentage with United Healthcare or other health plan.



## Participant Engagement

Active participants are defined as participants who logged at least once during the challenge.

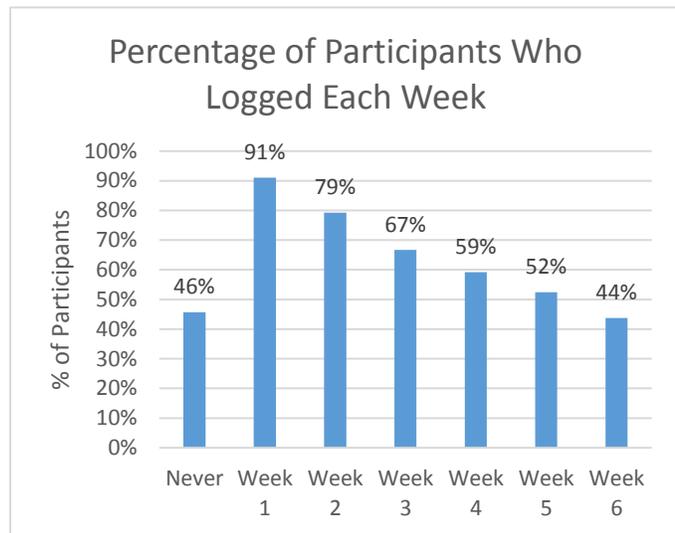
- Approximately 54% of registrants tracked 65% of the time.
- Tracking decreased steadily each week of the challenge.

The average number of days tracked among the active participants was 21 days.

Tracking decreased an average of approximately 9% each week.

Downloading the mobile app had a huge effect on tracking.

- 357 participants who downloaded the mobile app.
- When comparing active participants, those who downloaded the mobile app tracked their progress for an average of 27 days while those who did not download the mobile app tracked for an average of 20 days.



## Participant Comments:

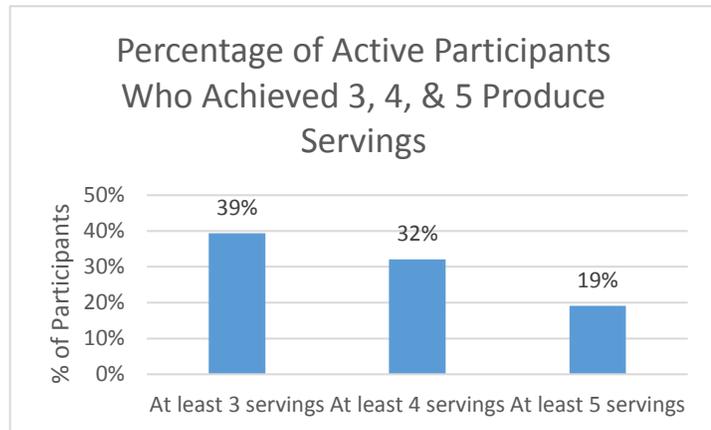
- *“I would love it if the app offered a cumulative summary of the weeks spent entering this data. For example, metrics showing how many days you reached the goal of enough fruit and veggie servings, how many days overall did you eat the “most colorfully” (most variety) etc. I felt like the program just stopped– I wasn’t allowed to enter any more and there was nothing conclusive available for me to monitor my behavior or habits.”*
- *“I perhaps was not so diligent but I did not know there was an app or that there were weekly e-mails. I knew I needed to track daily but other than that I did not navigate the website enough to enjoy it’s features.”*
- *“Helps to keep track of how much fruit and vegetable ate and be mindful of to eat more fruit and vegetables”*
- *“I like having a place to keep myself accountable for the produce I consume each day, and view the progress or trends over time. I also like the pie chart showing percentages of colors.”*
- *I enjoyed trying new recipes and focusing on the amount of fruit and veggies I eat daily. The tracking allowed me to see that I eat healthy and just need to continue. I feel great!!!*
- *“I liked the reminders to stay on track of adding color and variety to diet via healthy produce”*
- *“It made me really pay attention to how much produce I was really eating and small ways to increase my intake. I also loved that the phone app and the computer version of Colorful Choices worked together.”*
- *“I probably would not participate in a tracker system like this next time because I felt like it was one more task to complete, and eventually felt pressure to complete it. For me, it was too much energy spent on talking about it and inputting info. After a while, I just stopped putting in my entries–but I did eat a lot of salad during this time!”*

## Colorful Choices Results

- Over 30% of participants who tracked their points increased their produce consumption.
- 19% achieved at least 5 servings of fruits and vegetables per day.

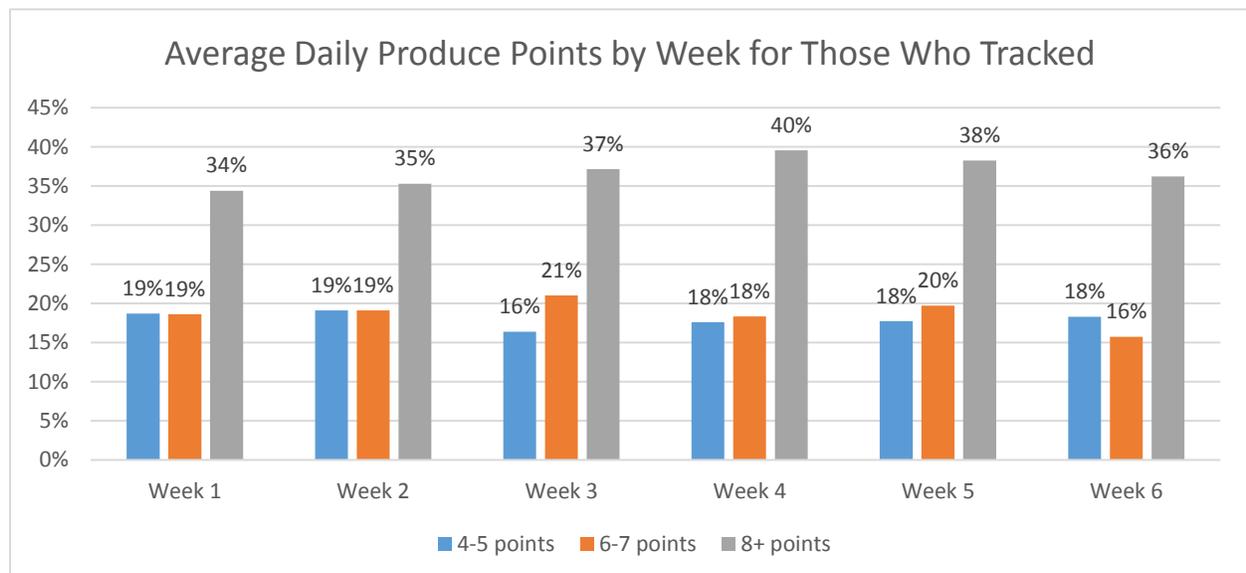
### Participant Comments:

- *“I went to the doctor last week, and was surprised to learn that I lost 7 pounds, I have been eating salads 5 days a week for lunch with many different types of ingredients, which I learned from Colorful Choices.”*
- *“This program made me feel more hopeful about being able to eat healthy. I was able to achieve the daily goal more days of the week than I originally thought. Thanks for the encouragement and new tools.”*
- *“I do eat healthy, but Colorful Choices really helped me to think about eating more vegetables and fruits. It also helped me to know which vegetables and fruits were lower in calories or offered extra health benefits. Now I know which ones to put on my list to buy and eat first. Thank you HSS Wellness for offering this program! Next time I will join a team!”*



### Engagement Leads to Increased Consumption

Across the 6 weeks, participants who logged for that week consistently achieved produce points from Week 1 to Week 6. Over 34% of those participants consistently achieved 8 or more produce points (top choice points excluded) on average each week, meeting the recommended goal of 5 servings of fruits and vegetables daily. Over half of all participants who logged weekly achieved an average of 4-5 servings of fruits and vegetables across the 6 weeks.

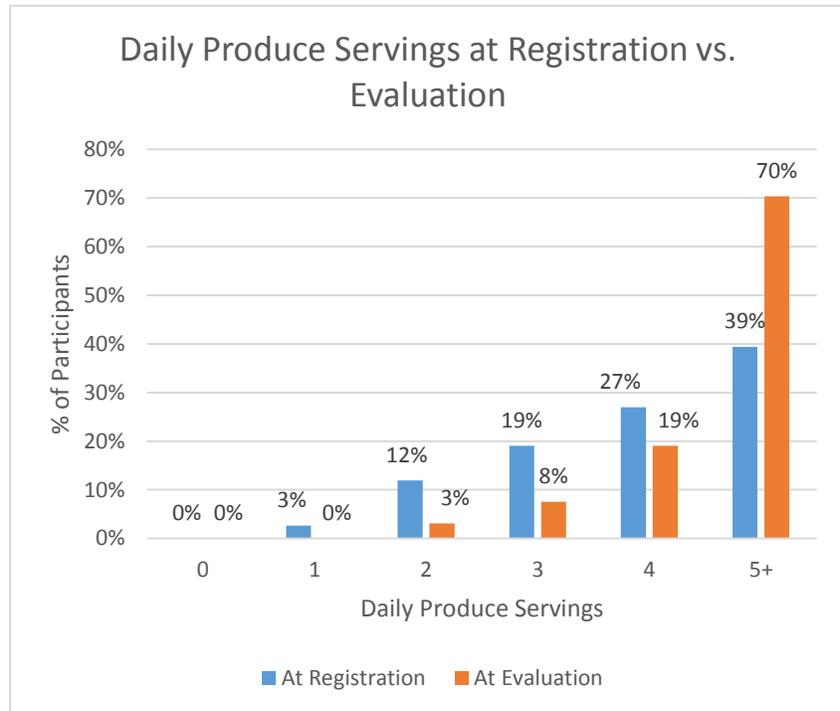


Note: 3 servings = 5 produce points (1 fruit & 2 veg), 4 servings = 6 produce points (2 fruit & 2 veg), 5 servings = 8 produce points (2 fruit & 3 veg)

### Self-Reported Produce Consumption Change

In comparing the self-reported data on fruit and vegetable servings per day at registration and evaluation, the participants who responded to the question at evaluation reported an increase in 3, 4, and 5 servings of fruits and vegetables per day.

- The percentage of participants consuming 5 or more produce servings increased by about 31%.
- Participants who consumed 2 or more servings of fruit increased by about 23% at evaluation compared to at registration.
- Participants who consumed 3 or more servings of vegetables increased by about 24% at evaluation compared to at registration.
- At evaluation, 87% of participants consumed 2 or more servings of fruit a day, compared to 61% at registration.
- At evaluation, 61% of participants consumed 3 or more servings of vegetables a day, compared to only 37% of participants at registration.



### Additional Outcomes

For the 245 participants who completed the pre and post survey, there was an increase in the number of people who had positive responses to all of the following questions:

- My workplace has a positive social climate that encourages healthy eating (7% increase)
- I have the energy needed to do the things I enjoy (9% increase)
- I am ready to achieve or maintain a healthy diet (16% increase)
- Number fruit servings (.7 serving/day increase)
- Number of vegetable servings (.5 serving/day increase)

The 245 participants who completed the evaluation has similar pre-survey responses to the total participant group. Since the two groups were similar, the following evaluation data compares only the 245 participants at registration and evaluation.

At evaluation, 58% agreed or strongly agreed that their workplace has a positive social climate that encourages healthy eating compared to 51% at registration.

Participant Comments:

- *“As co-workers we took turns getting each other fruits and veggies and it helped me connect better to others in the department I don't usually interact with.”*
- *“I enjoyed the team participation and sharing of healthy choices among coworkers.”*

- *“I think its a great program and our staff had a lot of fun preparing salads and other healthy items together.”*
- *“Wellness Champions started weekly healthy pot-luck which encouraged co-workers to participate.”*
- *“Our workplace rep. was great. Very supportive.”*
- *“Even though my co-workers did not participate in eating colorful choices, when they saw how hard I tried to get purple food in my diet, they all started bringing grapes and plums to work.”*
- *“I wish my department was more involved.”*

At evaluation, 79% reported having energy most of the time or always compared to 70% at registration.

Participant Comments:

- *“Eating fruits and veggies has gave me more energy to take walks on my lunch break.”*
- *“Eating better has given me more energy and helped with my digestion.”*
- *“This was so much fun and I learned so much. I am so happy I did this, I feel so much better now and healthier and have a lot of energy.”*
- *“It helped me think about what I was putting in my mouth and how it will help me gain energy, strength and help my body heal by eating healthier.”*
- *“I have added more vegetables, more fruits like blueberries and papaya. I have better energy and some of the craving has diminished! Gonna keep working at it, not easy but I want to get healthier and stay that way for my children and grandchildren!!”*

At evaluation, 62% perceived they could achieve the goal in less than or more than 6 months whereas at registration only 46% perceived they could achieve the goal.

Participant Comments:

- *“All in all I liked that the program encouraged me to widen my horizons and eat more and different types of fruits and vegetables.”*
- *“I am very glad that I participated, and would like to keep up with colorful eating moving forward”*
- *“Ever since I joined the Colorful Choices I was always excited to buy our family groceries with a colorful fruits and vegetables. Very inspired to eat varieties of fruits and vegetables everyday. So eating colorful fruits and vegetables makes me happy!”*
- *“This program made me feel more hopeful about being able to eat healthy. I was able to achieve the daily goal more days of the week than I originally thought. Thanks for the encouragement and new tools.”*

## Program Evaluation and Recommendations

### Helpful Features

- 67% of evaluation participants reported coworker participation as motivating
- 55% reported that tracking daily was the program feature that most helped in increasing their fruit and vegetable intake
- 29% reported that the ability to be on a team was the most helpful social feature
- 22% reported that the ability for coworkers to participate was the most helpful social feature

Of the 1162 active participants, 65% joined a team and 27% downloaded the mobile application. On average, participants who joined a team and participants who downloaded the mobile application consumed more produce daily and tracked their produce points more days than participants who did not. Participants who completed the evaluation survey consumed more produce daily and also tracked their produce points more days than participants who did not.

Employee's feelings about their workplace having a positive social climate that encourages healthy eating was not associated with substantial increases in produce consumption among any groups with the exception of those who completed the evaluation. At evaluation, employees who strongly agreed or agreed that their workplace had a positive social climate that encourages healthy eating achieved more produce points than employees who disagreed or strongly disagreed.

Employee's perception of their readiness to achieve their healthy eating goal was not strongly associated to produce consumption except among the all participant group. Among all participants who registered, those who perceived they were ready to achieve their goal in more or less than 6 months had more produce points and logged more days than those who were not ready, thinking about it, or preparing to.

The most popular reasons for participating in Colorful Choices at registration was to help manage weight and have more energy. However, those who were interested in winning a prize logged the most days and achieved the most produce points.

	Yes: Average Produce Pts.	No: Average Produce Pts.	Yes: Average Days Logged	No: Average Days Logged
<b>Teams</b>				
All participants	5.1	1.1	22	5
Active	5.9	3.4	25	15
Took Evaluation Survey	8.9	5.6	35	23
<b>Mobile App</b>				
All participants	5.2	2.2	24	9
Active	5.8	4.7	27	20
Took Evaluation Survey	8.5	7.3	36	29

#### Participant Comments:

- *"Build Your Meal was helpful for menu ideas besides it being a great reminder for keeping on track."*
- *"Creating a personalized goal at the start of the program. By having a goal, it helps create motivation and prevents you from straying from that goal."*
- *"It was a great way to challenge myself to eat more produce, especially more vegetables. The social aspect was fun, and I know that the whole team enjoyed the challenge."*

#### Champion Feedback about Teams

- Of those who formed teams in their department, positive feedback was collected: *Teams provided "having that extra accountability of team members", Teams got "people to discuss healthy eating choices" and "provided support while working towards a goal as a team"*
- To encourage more teams, Champion suggested: support/direction for team captains, encourage management to participate, have a longer enrollment period, and provide more prizes for those on teams.

### Program Goals and Outcomes

- Goal 1: more than 40% agree or strongly agree that they found it motivating that coworkers participated.  
Outcome: 67% of evaluation participants reported coworker participation as motivating.  
Process
- Goal 2 was that more than 25% agree or strongly agree that they found it motivating that family participated  
Outcome: 17% of participants reported family participation as motivation. However, 12% did not realize that the program was available to family members and 66% did not have family members participate.
- Goal 3 was that more than 80% agree or strongly agree that they would participate in other health and well-being challenges  
Outcome: 74% of participants agreeing to future participation.

### Success Stories

*"The Colorful Choices Program was awesome! The healthy competition and team atmosphere really motivated me to eat as healthy as possible. The 6-week program/competition was just long enough for me to form healthy eating habits that no longer require conscious decisions! I naturally gravitate to more healthy options now. I've had noticeably more energy since starting the colorful choices program. Can't wait to continue the healthy eating journey!"*

*"It is amazing how the contents of my grocery cart has changed since I have been enrolled in Colorful Choices. Where previously I had loaded up on prepackaged snacks and foods, now I spend a lot more time in the fresh vegetable and fruit section of our grocery store trying new and (somewhat exotic) looking treats. End result – my family's cart is at least half filled with fresh (and colorful) fruits and vegetables. This past week-end I bought three different kinds of kale (who knew that kale had so many different colors, and textures!) to make into a recipe I found in the SF Chronical. It's with feta cheese and a lot of olive oil (so it's probably not a diet meal) but what the heck, I'm treating myself and my family. My daughter wants us to try dragon fruit next week! Thanks for opening our eyes to the rainbow at our local grocery store!"*

*"Before I started this challenge I was sure I was eating plenty of fruits and vegetables every day, since I teach and believe in making fruits and vegetables half your plate. I was dismayed to discover that I was typically getting three to four servings a day, left to my own devices. This was a humbling, but valuable lesson. Colorful Choices increased my awareness and commitment to make these part of my daily routine. I have found it fun, it guides my snack choices and my sense of wellbeing is even greater. I also feel a great sense of accomplishment when I meet and exceed five servings a day!"*

*"I don't know if I've lost weight because I haven't yet been brave enough to step on a scale, but I know I am on the right track. I feel great, emotionally. My joint pains have lessened considerably. While away on vacation, it was difficult to get the full benefit of Colorful Choices so I made some "bad choices"...a lot. I now recognize how easy it is to begin "re-addiction". They say it takes three years to break a bad habit, so it was actually helpful to see how easy it was to "relapse" before securing my new healthy habit under my belt! I am so grateful that San Francisco found the resources and commitment to offer this program. I really hope that even though it will end, you will still offer a version of it...a website perhaps to help people continue their new healthy beginning."*

## Recommendations

1. Encourage joining a team.
  - Participants who were on a team recorded 5 times the amount of produce of individual participants.
2. Encourage downloading the mobile app.
  - Participants who downloaded the mobile app recorded 2 times the amount of produce of those who didn't.
3. Continue weekly contests.
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4. Adjust the awarding of prizes and communicate widely.
  - Many were not aware of the various prizes that were available for participants and teams that actively logged, increased produce consumption, and achieved 5 servings of produce per day.
  - Not everyone who registered logged their points, thus providing an incentive (e.g. t-shirt) may encourage more people to actively participate.
  - 79% of Champions reported that doing a weekly raffle specifically for those who tracked, would encourage higher rates of tracking. 45% also suggested that HSS send out weekly reminders to people who registered.
5. Encourage teams.
  - Champions appreciated teams formed in their departments. They noticed increased word of mouth marketing and accountability among those who formed teams.

# Colorful Choices Nutrition Challenge: 2016 Retiree Results

## Background

Eating for good health is vital for everyone at any age. Eating a balanced diet with a variety of foods has health benefits. A balanced diet can reduce the risk of chronic diseases such as heart disease, stroke, type 2 diabetes, bone loss, certain kinds of cancer and anemia, and other prevalent conditions in the older adult population. Most seniors have at least one or more chronic condition. Healthy lifestyle behaviors such as healthy eating and physical activity can assist in the reduction of high blood pressure, lower high cholesterol and manage diabetes.

Eating well allows the body the energy to fuel itself throughout the day. For the most part, as retirees age they require less calories than in their formative years, partly due to their lessened activity level and loss of muscle tone and height. Food choices can affect weight. Extra weight is a significant concern for older adults because it increases the risk for diseases such as type 2 diabetes, heart disease, and hypertension and can increase joint problems. Eating a diet with more calories than the body can burn will lead to extra pounds.

The US Department of Agriculture recommends that female adults over the age of 51 have 1.5 cups of fruit per day and 2 cups of vegetables per day and men of the same age 2 cups of fruit per day and 2.5 cups of vegetables per day. This recommendation is assuming that individuals get less than 30 minutes of moderate physical activity per day, beyond activities of daily living. Those who are more physically active may be able to ingest more while staying within their caloric requirement.

Eating a multitude of fruit and vegetables is a necessary component of the older adult diet, mainly because the nutrients and fiber in these foods can help reduce high blood pressure, lower the risk of heart disease, stroke and certain cancers, and prevent eye and digestive problems as well as assist with satiation. Fruits and vegetables help with digestion and can help manage weight as most fruits and vegetables have a lower caloric content than other high fat options.

1. <http://nihseniorhealth.gov/eatingwellasyougetolder/benefitsofeatingwell/01.html>
2. <http://www.choosemyplate.gov/fruit>
3. <http://www.choosemyplate.gov/vegetables>
4. <http://www.everydayhealth.com/senior-health/health-benefits-of-fruits-and-vegetables.aspx>

## Campaign Overview

### Colorful Choices Background

Colorful Choices is a simple nutrition program that helps to create healthy eating habits and healthier choices. The program provides participants with a platform to track their produce consumption for 6 weeks, weekly emails containing tips and recipes, access to daily tips and recipes on the website and mobile app, and the opportunity to participate with family and fellow retirees. There were weekly opportunities to win a prize for participating in the program through various contests. In addition, participants who tracked daily, increased their produce consumption, or achieved 5 or more servings of fruits and vegetables a day were eligible for prizes.

## Educational Resources

Educational resources were distributed through the HSS website, e-news, city-wide emails, and at Retired Employees of City and County of San Francisco (RECCSF) meetings. Resources included various handouts that encouraged fruit and vegetable consumption, tips, and recipes. The handouts included ways to make eating fruits and vegetables easier such as tips to help you eat more fruits and vegetables, overcoming eating challenges for seniors, educational games and supermarket activities for kids, and fresh ways to prepare fruits and vegetables. There were also resources on affordable options such as how to shop smart and save, where to find a farmer's market, what to buy that is in season, how to start a home garden, and how to stretch your produce dollars by knowing how to store them. Additionally, there were recipes on cooking light, how to cook vegetables for the best flavor, recipes for kids, and quick, soft, and easy meals for seniors.

## Onsite Activities

In support of the Colorful Choices Challenge, HSS coordinated a healthy eating presentation and a stretching demonstration by retired firefighter/paramedic Al Garza to 59 retirees at the March 2016 RECCSF meeting. A HSS staff person provided a presentation and promoted the Colorful Choices initiative and demonstrated the use of the website. Promotional materials were provided for all attendees.

## Colorful Choices Participation

HSS Member Group	Individual Participation	Percent on Team	Number Teams
Retirees	101	13%	4
Family Members of Retirees	13	54%	3

## Recruitment

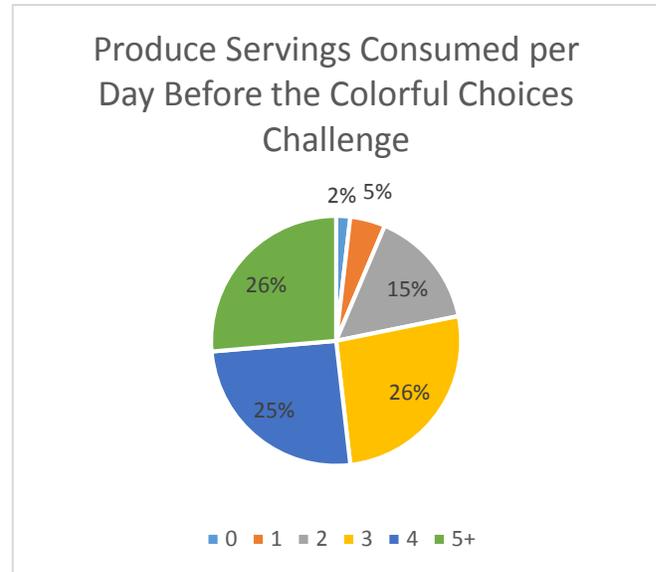
HSS reached out to retiree organizations in an effort to promote the Colorful Choices Challenge. Promotional materials announcing the Colorful Choices challenge were included in the following publications: Local 798's Mainline, the Police Officers Association Bulletin, RECCSF's monthly News and Views, United Educators of San Francisco – Retired Division's April Newsletter and Retired Firemen and Widow's Association's newsletter. Retiree registration spiked after an HSS email was sent to the retiree population.

The majority of retirees who participated were primarily residing within the State of California (86%). The remaining 14% of retiree registrants were from the following states: GA, MI, NE, LA, TX, NM, NV, OR and WA. Oregon had the highest percentage of attendees participating outside the state of California (29%).

**Produce Consumption Before Colorful Choices**

Employees who did not meet the recommendations of fruit and vegetable intake (recommendations are at least 2 servings of fruit per day and at least 3 servings of vegetables per day) were the target population for this intervention.

- 73% of participants not consuming 5 servings of fruits and vegetables.
- 40% of participants were not meeting the fruit goal.
- 35% were not meeting the vegetable goal.



**Reason for Participation**

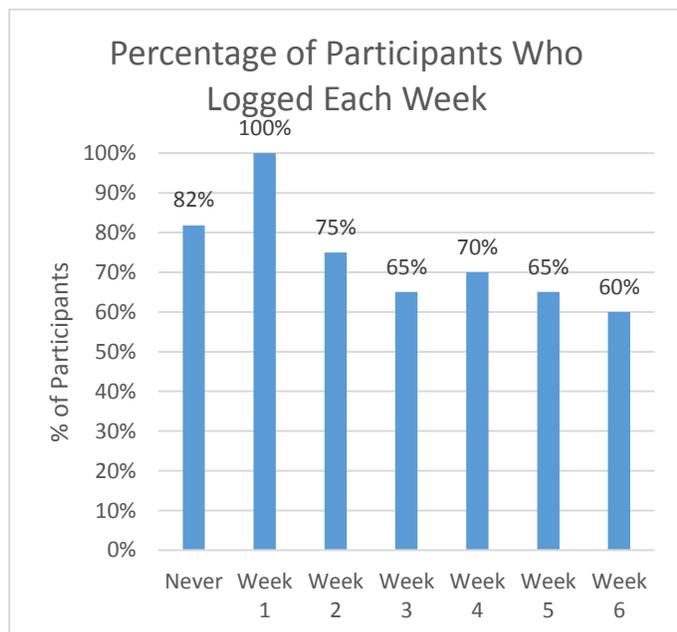
- 38% of participants reported their main reason for participating in the Colorful Choices program was because they wanted to eat better to help manage their weight.
- 23% of participants wanted to eat better so they could have more energy.
- 13% of participants wanted to eat better for their heart health.

**Participant Engagement**

Active participants are defined as participants who logged at least once during the challenge.

- Approximately 18% of registrants tracked 73% of the time.
- Tracking decreased over the course of the challenge.

The average number of days tracked among the active participants was 26 days.



## Recommendations

- Online challenges may not be a successful way to engage retirees in behavior change. Consider other opportunities.
- Continue to personally promote to retiree organizations and to retiree attendees who frequent the HSS Wellness Center: They are more likely to join challenges when personally asked.
- Provide and promote prize incentives for tracking: 82% of retirees who signed up for the challenge did not track. Prize incentives when promoted to the retiree population may encourage them to track and thus create a healthy lifestyle behavior.
- Continue to promote in retiree publications and to active employees: Often current employees have friends or family members who are retirees and can help spread the word about the initiative.
- Encourage joining a team: *Participants who were on a team were more successful in increasing their fruit and vegetable intake.*
- Encourage downloading the mobile app: *Participants who downloaded the mobile app were more successful in increasing their fruit and vegetable intake.*
- Continue weekly contests: *The weekly contests where participants submitted stories, recipes, photos, and more were beneficial in providing us with qualitative information of the participants' experience.*
- Increase prize advertisement: *Many were not aware of the various prizes that were available for participants and teams that actively logged, increased produce consumption, and achieved 5 servings of produce per day.*