“EAT YOUR GREENS!”

Evaluation Report

Results of a Healthy Vending Initiative in Pima County, Arizona through the Communities Putting Prevention to Work Initiative

Prepared by the CPPW Evaluation Team

University of Arizona College of Public Health
&
Pima County Health Department

2012
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Project Background
On August 20, 2010, Pima County Communities Putting Prevention to Work (CPPW) Policy Staff were directed by the Pima County Administrator to review the contents of all vending machines on County property and to provide policy recommendations designed to reduce unhealthy food options that could lead to increased risks for diabetes or obesity. Additionally, it was requested that an action plan be developed to implement a policy change that would provide an environment supporting healthy behavior.

In order to provide an in-depth understanding of the various nutritional standards and vending machine policies that are currently in place in the country, research was conducted by CPPW Policy Staff to compare findings and identify best practices. Federal requirements for nutrition exist as a foundation upon which state departments of education develop their own policies for school nutrition. These requirements are outlined by the National School Lunch Program (NSLP) and apply solely to children in school. These guidelines, however, have served as a sufficient foundation for county and city jurisdictions to develop their own standards with respect to workplace wellness and vending machine policies. In essence, the standards that are laid out by the states and county/city jurisdictions were often much more strict in their requirements for healthy foods and beverages than those identified by the federal government.

Best Practices
In researching various jurisdictions with vending machine policies, a series of “lessons learned” brought to light various practices and key observations that were needed in order to keep policies viable, effective and sustainable. The following serves to provide some information with respect to the educational efforts made to promote the vending machine policies, the efforts that were made to involve key stakeholders, the targeting of nutritional content, and practices that were implemented to help guide the choices of individuals using the vending machines.

Education
Education served as a vital component for the implementation of any successful vending machine policy and proved to remain an on-going task for various jurisdictions. It proved advantageous to have promotional and educational materials printed prior to the implementation of the program. It was equally important to allow adequate time to fully inform and educate staff and the public about the new program and its benefits. It was key that the nutritional standards and the reasons for their adoptions were explained in a manner that the public could understand.

Stakeholder Buy-In
Effective communication with vendors and customers was crucial for successfully implementing a healthy vending policy. To accomplish this, outreach and education to vendors and customers was effective in illustrating the value of making healthier choices. It should be noted that vendors in certain jurisdictions did not understand why they were restricted to a list of approved foods that was less expansive than the range of merchandise they had previously sold. However, through effective education and outreach, vendors became promoters of healthier
options. In the case of one county, the vendor now regards the program as beneficial and is promoting healthier options with other customers. Some methods that were used to adequately engage customers were surveys and taste tests. This approach served the dual purpose of educating customers on healthier vending and providing feedback on the selection of healthy options. It was also advantageous to include staff at each worksite in product selection, implementation, monitoring, and evaluation of the program as it assisted with buy-in and support from the employees.

**Targeting**
Across jurisdictions different approaches were taken to providing healthier options that complied with the nutritional guidelines mandated by the states and various review committees. Los Angeles County, for instance, took a phasing-in approach in which in the first year, 25 percent of all foods and beverages in County-contracted vending machines placed within County facilities and offices were required to follow nutritional guidelines. Two years later, this amount was increased to 33 percent and by 2011 Los Angeles County targeted 50 percent of all foods and beverages in County-contracted vending machines within County facilities. Santa Clara County took a similar approach in which the first year, the policy required that 25 percent of the items in vending machines needed to be healthy options with that percentage increasing in subsequent years. San Diego County however took a different approach and made the decision to include different standards for snacks and beverages. Through their plan, 100 percent of food and beverages sold in facilities most often used by children and youth had to immediately meet the nutritional standards set forth by their policy, while 50 percent of food and beverages sold in facilities most often used by adults needed to meet the nutritional standards of the policy. This approach helped gain acceptance for the policy in San Diego County for both the workforce and public.

**Pricing**
Research indicated that if policies were implemented that encouraged the sale of healthier food and beverage items at a price point equal or below the unhealthy items, the healthy items sold at an increased rate. In a study conducted by the University of Minnesota School of Public Health, the prices of low-fat vending machine items were reduced by 50 percent. This led to an increase in purchases of the low-fat items from 80 percent to 93 percent. Thus creating pricing strategies that make healthier food items more economically attractive to individuals can be an effective strategy to direct individuals to make healthier choices.

**Guiding Healthier Choices**
Understanding that education about healthy snacks serves as a major factor in impacting and reducing the poor choices of employees and the public, various unique and innovative programs have been developed to provide more informed decisions when purchasing snacks or beverages from vending machines.


New York City instituted a policy that included calorie labeling for their vending machines. Every machine must display the total calorie content for each item clearly, conspicuously and adjacent or in close proximity to the item being sold. It is also stipulated that a font and format must be used that is prominent in size and appearance as that which is used to post either the name or price of the beverage where it can be seen before the consumer presses the button to make a selection. The city has sole discretion regarding the display of calorie information. Utilizing guidelines based on California’s Senate Bill 12 (SB12), Marin County worked to develop a protocol for educating both vendors and consumers about the new guidelines. The educational tool known as “Better for You” consists of a simple three-step color coding system. According to the system, Green signifies “Go for it!” meaning that the product meets all the guidelines of SB12. Orange signifies “Caution!” or that the products meet only part of guidelines and finally, Red signifies “Stop!” or that those purchasing the product may want to provide further consideration prior to their purchase.

The Public Health Department of the Contra Costa County designed a star system to assist patrons in choosing foods that met the healthy criteria established by their policy. Posters with a green star logo describe the benefits of healthy choices and are placed next to vending machines. Green star stickers are placed next to the healthy items inside the vending machines to indicate healthy options.
Project Description

CPPW Policy Staff made the following recommendations based on Pima County’s vending machine policy pilot effort. The policy is all inclusive and covers a range of topics including, dietary guidelines, stakeholder buy-in, educational component that should be pursued for Pima County staff and the public, as well as the targeting and pricing of healthy products in County vending machines. Finally it emphasizes the effort that should be made to guide the vending machine choices of Pima County employees and the general public as well as ensuring compliance through routine monitoring.

In an effort to ensure policy and program sustainability, it was recommended that a pilot study be conducted in the Herbert K. Abrams Public Health Center (Abrams Building) as it is home to many HMI vending machines and the Pima County Health Department. The Abrams Building was a perfect building to conduct a pilot study due to the number of vending machines as well as the diversity of individuals who use the building. The goal of the pilot study was to identify program challenges, concerns, and opportunities prior to county-wide implementation. The pilot study included the use of preexisting machines, marketing and educational materials, and consumer follow-up. The pilot was conducted for a period of 3 months between September 2011 and December 2011.

Dietary Guidelines

Based upon jurisdictional research, the following dietary guidelines for foods and beverages that are placed in vending machines were recommended. These guidelines were developed by analyzing and assessing the standards that were developed by other jurisdictions and determining those that best fit Pima County to accomplish our policy goals.

<table>
<thead>
<tr>
<th>Table 1 – Policy Recommendations</th>
<th>Dietary Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fat</strong></td>
<td>• No more than 35% calories from fat with the exception of nuts and seeds; snack mixes and other foods of which nuts are a part must meet the 35% standard.</td>
</tr>
<tr>
<td><strong>Saturated Fat</strong></td>
<td>• No more than 10% of calories from saturated fat</td>
</tr>
<tr>
<td><strong>Sugar</strong></td>
<td>• Less than or equal to 35% total sugar by weight (not including fruits or vegetables).</td>
</tr>
<tr>
<td></td>
<td>• Sugar/sweetener cannot be the first ingredient listed.</td>
</tr>
<tr>
<td></td>
<td>• High-fructose corn syrup (HFCS) should be limited. Among all sweeteners listed, HFCS cannot be the first.</td>
</tr>
<tr>
<td><strong>Sodium</strong></td>
<td>• For single food: ≤ 360 mg of sodium /serving.</td>
</tr>
</tbody>
</table>
Guiding Choices

To encourage individuals to make healthier food choices, a point-of-purchase labeling system that displayed nutritional information by utilizing a tri-colored system to help identify healthier foods and beverages was developed. In coordination with the Pima County's Communications Office, the *Eat Your Greens!* healthy vending program was developed to help educate employees and the general public of healthier choices. This system was very similar to the program implemented by Marin County. The system uses three colors (green, yellow, and red) to designate healthy choices from those that are less than healthy. Utilizing the dietary guidelines established, it was determined that should a snack meet all five dietary guidelines that it would be designated as “green” item whereas if the item met only 3 to 4 of those guidelines, it would be “yellow”. Finally, if the item met two or fewer of the guidelines established, it was labeled with a red sticker. In addition to these labels, decals were developed to be placed at the point-of-purchase highlighting the program. Additionally, posters and informational brochures highlighting the purpose of the program and providing snack advice and why it is good to snack were developed to be placed in close proximity of each floor’s vending machines.
Contractor Buy-in
During the initial planning stages of the pilot program, it proved critical for County management to work with the Business Enterprise Program (B.E.P.) and HMI Vending (HMI) in an effort to discuss strategies to mitigate any negative effects that moving to more healthy vending options might have for the operator. Understanding that 25 percent of the gross profits received from vending sales went to assist the County’s contracted visually-impaired operator, an effort was made to closely review preliminary sales data to ensure that top-selling items would not be removed from the vending machine, but instead be reduced in quantity thereby providing space for healthier snacks. With the support of both B.E.P. and HMI, a comprehensive targeting plan was developed from this concept.

Additionally, Pima County Health Department’s CPPW Division worked directly with HMI to develop a list of possible healthy snacks that could be sold in vending machines based on the developed dietary guidelines developed. This effort that was made to not only increase the variety of healthy options available to County employees and the general public, but to also boost contractor buy-in. By working with HMI to develop a list of new snacks it was assured that sales could remain steady or increase if the proper steps were taken to promote the new snacks and an opportunity was given to employees to sample the new items through a taste-testing event. This effort helped to quell fears of plunging sales with the introduction of healthy items.

Targeting
Utilizing the Eat Your Greens! healthy vending program, the Communities Putting Prevention to Work division worked with HMI to require that all of the Abrams Building vending machines contain 50 percent Green items, while 25 percent would consist of the highest selling Yellow items and the remaining 25 percent would consist of the highest selling Red items. This method of targeting was proposed as a way to provide healthier options in a manner that was beneficial to County employees, the general public, and the contracted vendor.

Education
The County took a proactive approach in providing educational information centered on the benefits of making healthier food choices. This process was achieved through a variety of methods including printed educational brochures, posters, vending machine decal signage, newsletters, and a taste-testing event. In the week prior to the start of the pilot, brochures and posters were displayed in close proximity to the vending machines at the Abrams Building highlighting the program. Additionally, HMI staff placed decals near the pricing of each item in the vending machines to designate healthy snacks from unhealthy ones and placed decals highlighting the program at the point-of-purchase for each machine. This effort helped to develop a sense of awareness around healthy snacking the week prior to pilot kick-off. To increase this awareness, a special taste-testing event was held the week that followed so that County employees could sample healthy vending snacks that were already available to them in the building’s vending machines as well as snacks that could be made available. A simple feedback survey was provided so that the employees could rate each item and their likelihood of purchase. The sampling and feedback helped to foster a sense of buy-in for the healthy vending program from the employees and also helped to promote items that they otherwise may
have never tried on their own. Finally, in an effort to help promote awareness of the healthy options available in the vending machines as well as education about the importance of healthy snacking, a newsletter was developed and distributed to Abrams Building’s employees via the Pima County Health Department’s listserv. It was identified through the pilot that educational efforts needed to be ongoing in order to effectively inform individuals of healthy eating habits and the value of making better choices.

**Monitoring**

During the pilot, Pima County Health Department’s CPPW Division worked with HMI to ensure that snacks that were placed in the vending machine complied with the *Eat Your Greens!* tri-colored healthy vending program. This helped to guarantee that snacks were not mislabeled after the vending spindles were restocked which could result in an individual purchasing an item with the incorrect color designation. Consistent and periodic monitoring was critical to make certain that the provisions of the policy were put into practice and to guarantee that healthy foods are being sold as initially agreed upon. This quality assurance process helped to guarantee that HMI accurately designated products in accordance with the guidelines set forth by pilot and that they ensured that the machines were adequately stocked.
**Evaluation Methodology**

The vending machine pilot was carefully evaluated in order to ascertain the feasibility of the vending policy change within the Pima County environment. Data collection activities include the following.

1. **NEMS-V**: The online assessment tool known as the Nutrition Environment Measures Survey for Vending (NEMS-V) was used to inventory and categorize items at the Abrams Building two months prior to the implementation of the vending pilot. This tool provided a “snap shot” of items being offered in vending machines prior to the inception of the pilot program.

2. **Employee Interest Survey**: The 16-question employee interest survey was disseminated to employees working in the Abrams Building prior to the start of the intervention project to determine vending machine preferences and practices both before and after the pilot. The same survey was disseminated again as a post assessment to employees six months after the intervention project was implemented. The survey was advertised to Pima County staff in the Abrams Building through administrative emails and the survey was circulated online through SurveyMonkey®. At baseline, 242 Pima County employees completed the survey and 159 employees completed the post survey. For reasons of confidentiality, the evaluation team did not match the pre and post survey but rather used the survey to take a snapshot of current vending practices. The survey assessed respondents’ snack purchasing behaviors and their attitudes around healthier vending options if they were to become available. At post survey, additional questions about the “Eat Your Greens!” intervention were added specifically related to the policy being implemented.

3. **Vending Sales Data Analysis**: In order to assess changes in purchasing practices among employees and Abrams visitors, Pima County collected purchasing data. Third-party vendors HMI contracted to stock the vending machines in the Abrams Building provided data from the vending machine sales for a 4-month period prior to the intervention and again for the 4-month period of the pilot intervention. To help facilitate this process, HMI ensured that the vending machines on each floor mirrored one another with respect to the snacking options available. HMI then provided logging sheets that tallied the number of items sold per vending machine during each week of restocking. An analysis of vending sales was completed to determine whether healthier snack options will sell more than less healthful items.


Evaluation Results

Baseline Assessment

**NEMS-V**
Baseline evaluation data indicate the need for a policy intervention in the Abrams Building focusing on healthy snack alternative. According to the NEMS-V, prior to the intervention 22% of vending items met the Green standard and 30% of vending items met the Yellow standard. Half of the items (48%) were classified as being Red. It is worth noting that at the time of the NEMS-V, some changes in the vending machine selection toward healthy options had already been initiated by the vendor.

**Employee Interest PreSurvey**
The Employee Interest Survey was disseminated at two distinct times both prior to and 6 months after the initiation of the pilot intervention. The pre survey consisted of 16 questions while the post survey consisted of 21 questions. The majority of survey respondents were females between the age ranges of 50-59 years.

The Employee Interest PreSurvey found that vending machines were used on a regular basis by 23% of the employees (one or two times a week). The most popular vending machine items were chips, water and candy. On average, taste, freshness, and the price of the snack were factors considered most important by employees when making a vending purchase. Factors such as the number of calories or the amount of fat in a snack were rated 6th and 7th in importance, on average. Nearly half (41%) of employees found it easy/very easy to distinguish the healthy snacks in the vending machines, while 16% found it difficult/very difficult. Employees overall expressed support for healthy options in the vending machines (65%), and 68% were willing to pay more for a healthy snack.

As a baseline measure of the efforts of Pima County Administration in supporting accessibility of healthy snacks, 60% of employees answering the pre survey were aware of the healthy items available in the vending machines and 66% agree/strongly agree that their organization valued their health.
Post Intervention Results

Vending Sales

*Baseline Vending Sales*: June 17th – September 14th, 2011**
**Missing sales dates: June 25th – July 5th, 2011; August 6th – September 1st, 2011

*Post-Pilot Intervention Dates*: September 15th, 2011 – December 30th, 2011*

Vending sales data indicate that the pilot intervention had a positive impact on buyers’ selection of healthier items. While the proportion of green options stocked increased from 18% to 24% during the pilot, the proportion of green options sold increased from 15% to 26%. The proportion of red items stocked decreased from 32% to 25% and the proportion of red items sold decreased from 35% to 28%.

Prior to the Pilot
Prior to the pilot, a smaller proportion of green options were sold than were stocked.

<table>
<thead>
<tr>
<th></th>
<th>Green</th>
<th>Yellow</th>
<th>Red</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stocked</td>
<td>18%</td>
<td>49%</td>
<td>32%</td>
<td>2%</td>
</tr>
<tr>
<td>Sold</td>
<td>15%</td>
<td>49%</td>
<td>35%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Pilot Intervention
During the pilot, a greater proportion of green options were sold than were stocked.

<table>
<thead>
<tr>
<th></th>
<th>Green</th>
<th>Yellow</th>
<th>Red</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stocked</td>
<td>24%</td>
<td>48%</td>
<td>25%</td>
<td>2%</td>
</tr>
<tr>
<td>Sold</td>
<td>26%</td>
<td>44%</td>
<td>28%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Pilot Intervention: Month-to-month comparison
Although the proportion of green items did not consistently increase from month-to-month during the pilot, a statistically significant association was found between green items sold and exposure to the pilot intervention (p<.0001). The odds are 1.67 times higher for green items being sold during the pilot than prior to the pilot. Consistently throughout the pilot a greater proportion of green options were sold when compared to the months prior to the pilot.

Additionally, a greater proportion of green items were sold than were stocked for three out of the four months during the pilot.

<table>
<thead>
<tr>
<th></th>
<th>Green</th>
<th>Yellow</th>
<th>Red</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stocked</td>
<td>Sold</td>
<td>Stocked</td>
<td>Sold</td>
<td>Stocked</td>
</tr>
<tr>
<td>September</td>
<td>24%</td>
<td>32%</td>
<td>50%</td>
<td>40%</td>
</tr>
<tr>
<td>October</td>
<td>24%</td>
<td>24%</td>
<td>50%</td>
<td>44%</td>
</tr>
<tr>
<td>November</td>
<td>25%</td>
<td>26%</td>
<td>50%</td>
<td>44%</td>
</tr>
<tr>
<td>December</td>
<td>22%</td>
<td>25%</td>
<td>50%</td>
<td>45%</td>
</tr>
</tbody>
</table>
**Employee Interest PostSurvey**

The table below describes the gender and age of participants in the Employee Survey. While the number of respondents differs between pre and post questionnaire, the gender and age of respondents is similar at both times and accurately represents the staff employed in the Abrams building.

<table>
<thead>
<tr>
<th></th>
<th>Presurvey</th>
<th>Postsurvey</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Respondents</strong></td>
<td>242</td>
<td>159</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>21.5%</td>
<td>22.9%</td>
</tr>
<tr>
<td>Female</td>
<td>78.5%</td>
<td>77.1%</td>
</tr>
<tr>
<td><strong>Age Range</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>10.7%</td>
<td>10.5%</td>
</tr>
<tr>
<td>30-39</td>
<td>20.2%</td>
<td>19.1%</td>
</tr>
<tr>
<td>40-49</td>
<td>22.3%</td>
<td>16.4%</td>
</tr>
<tr>
<td>50-59</td>
<td>37.2%</td>
<td>41.4%</td>
</tr>
<tr>
<td>60+</td>
<td>9.5%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

**Purchasing Interest and Behaviors**

From pre to post survey the percentage of employees regularly using vending machines decreased from 23% to 14%, while the percentage that used the vending machines less than once a week rose from 68% to 78%. More time is needed to assess the permanence of this trend or the impact in overall sales. However, the post employee survey identified no changes in general purchasing practices among employees. At post the majority of respondents indicate purchasing chips (32%), diet soda (32%), and water (32%) as the top three products usually purchased from a vending machine in the Abrams Building. The least common types of products indicated were juice (11%), pastries (5%), and tea (5%). Similar responses were given in the pre survey.

**What types of products do you usually purchase from a vending machine in the Abrams Building?**

*Post survey, n=159*
There was very little difference in the amount of money that employees spent at the vending machine between pre and post survey. At post survey, the majority of respondents (55%) indicate spending on average less than $1.00 per week on snack foods and beverages in vending machines in the Abrams building followed by $1.00 - $2.00 per week (23% and 31%). A very small percentage of respondents (less than 5% for both surveys) indicate spending more than $4.00 per week in the vending machines.

When asked to identify certain food characteristics that are important to consider making a purchasing decisions, as with the pre survey the majority of respondents at post selected snack taste, freshness, and cost to be the most important. Value, hunger, and calorie count were also considered important in a person’s snack purchasing decision. When asked which type of

When making a choice at a vending machine, how important is ...

Top Snacks People Would Likely Purchase:
1. Nuts
2. Water
3. Dried Fruit
4. 100 Calorie Packets
5. Whole Wheat/Grain Crackers
6. Pretzels
healthy snack they would be likely to purchase, the top snack responses were nuts, water, whole wheat/grain crackers, dried fruit, 100 calorie packs, and pretzels. No large variation was found between presurvey and postsurvey results.

When asked, “How much more would you be willing to pay for healthier choices?” the majority of presurvey respondents in expressed, “not willing to pay more” for healthier choices (31%). However after the postsurvey, a majority of respondents indicate that they were now willing up to pay “up to 50 cents” more for healthier choices (30%). A small increase between the surveys can also be noticed in the responses indicating willingness to pay “up to 25 cents” more for healthier options as illustrated in the chart below.

![Chart showing willingness to pay for healthier choices](chart.png)

**How much more would you be willing to pay for healthier choices?**

<table>
<thead>
<tr>
<th>Amount</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to $0.25</td>
<td>26%</td>
<td>29%</td>
</tr>
<tr>
<td>Up to $0.50</td>
<td>23%</td>
<td>30%</td>
</tr>
<tr>
<td>Up to $1.00</td>
<td>19%</td>
<td>15%</td>
</tr>
<tr>
<td>I'm not willing to pay more</td>
<td>31%</td>
<td>26%</td>
</tr>
</tbody>
</table>

**Awareness and Accessibility of Healthier Snack Options**

After the project intervention, respondents indicate becoming more aware of the healthier food items that are available to them in the Abrams Building’s vending machines. A 22% increase in the respondents’ indication of “yes” to being aware of the healthier food items available can be seen in the following chart. It is apparent that the intervention project has increased employee’s awareness of the healthy options that are readily available to them.

Respondents indicate that it is now easier to distinguish healthier foods and beverages in the vending machines. Between pre and post survey, fewer respondents indicated that it was “very difficult” to distinguish healthier foods and beverages (43% to 37%).

![Chart showing awareness of healthier food items available](chart2.png)

**I am aware of the healthier food items available.**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>82%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A greater percentage of people indicate that it was easier to distinguish healthier food and beverage options in the post survey compared to its counterparts in the presurvey (from 41% to 57%). The chart below illustrates the distribution of responses between presurvey and the postsurvey.

![Bar chart showing distribution of responses between pre and post survey](chart1.png)

To supplement the above mentioned findings, a large majority of respondents (51%) in the “agreed” that there are more healthy food choices available in the vending machines now than in the past.

**More healthy food choices in vending machines.**

**Post Survey**

- Strongly Disagree: 1%
- Disagree: 7%
- Neither Agree nor Disagree: 41%
- Agree: 51%
- Strongly Agree: 1%
“Eat Your Greens!” (EYG) Evaluation Results

The following findings are specific to the “Eat Your Greens!” pilot. Overall 64.1% of respondents indicated knowing what “Eat Your Greens!” was. A majority of respondents (41%) indicated becoming better informed as an outcome of “Eat Your Greens!” In addition, 35% of respondents attributed their decision to purchase healthier snacks to the efforts of “Eat Your Greens!” while 44% neither attributed nor denied “Eat Your Greens!” efforts in influencing their decision to purchase healthier snacks.

Most respondents attributed the project’s color-coding system (54%) and taste testing event (22%) as the most effective components in encouraging the purchase of healthy snacks.

Which of the following components of the EYG! healthy vending program do you think was most effective at encouraging the purchase of healthy snacks?
Sustainability of Efforts

There was a slight increase in respondents’ perception that their current workplace believes in the importance of health (3.75 to 3.86). Overall respondents indicated agreeing with the statement, “My organization feels my health is important.”

In the interest of project sustainability post CPPW funding cycle, respondents were asked to provide ways they believed Pima County should continue to support healthy eating and physical activity for its employees across all sites.

The most shared recommendations amongst all of the respondents are the following:

1. Provide an onsite gym or safe space (i.e. walking trail) for employees to partake in physical activity.
2. Increase access to healthy eating options through food carts, healthy vending, and markets for employees.
3. Permit 15 minute exercise breaks to all employees throughout the day or provide a paid exercise program during lunch.
4. Continue maintaining current wellness programs (i.e. Eat Your Greens!), host physical activity classes and facilitate walking clubs for employees to engage.
5. Partner with the YMCA or other facility to provide gym membership discounts to all county employees.
Conclusion

The effort of the Pima County Health Department to initiate systems change in vending machine practices impacting County employees was a component of the Pima County Communities Putting Prevention to Work Policy Team. This report documents positive outcomes of the pilot intervention effort in one Pima County building, most importantly an increased proportion of healthy versus unhealthy snacks sold in vending machines over a four month period and increased employee awareness regarding the availability of healthy items in the Abrams Building.

There are intermediate steps to policy change that serve as indicators of an overall shift in policy that were documented in the vending machine evaluation. These include building overall awareness among employees about the importance of good nutrition as well as support for policy or systems change. It is also necessary to gain the support of administration regarding the role and importance of policy change and to engage in the process of developing and testing policy strategies.

Pima County CPPW successfully engaged County administrators in the policy effort by achieving a county administrator directive to adopt labeling and point-of-sale education in County building vending machines which included a commitment to at least 25% green and no more that 25% red items in vending machines. The Vendor/Business Enhancement Program has made strong strides towards complying with the directive that reflect systems changes not driven specifically by policy.

The Pima County CPPW team subsequently directly educated 1,300 county staff about healthy food in vending machines through posters, pamphlets and point-of-sale education, as well as in targeted emails, and in-person taste testing demonstrations. These same 1,300 staff were also directly impacted by changes in healthy food availability in the vending machines, while another 6,500 employees will also have access to the same healthy snacks in vending machines without the education component. An overall commitment to increasing access to healthy snacks to County employees over the long term has the potential to improve their overall nutrition behavior and health status. Given that approximately 6,300 members of the public visit the Abrams Building each month and 10,000 county-wide, access to healthy snacks also has the potential for health impact county-wide. Pima County may also serve as an example to other entities serving large sectors of the public such as health care providers, schools and city services. In many ways, vending machines provide an ideal opportunity for organizations to promote and facilitate healthy choices. Ongoing evaluation of the purchasing practices over time as well as changes in employee and public perception are an important contribution to this effort.
References


