

# Healthier Vending Campaign at Missouri Department of Health and Senior Services



December 2009



## **Healthier Vending Campaign at DHSS**

### **Abstract**

**Background:** Many aspects of the worksite environment affect the selection of foods consumed by employees. The environment at DHSS Wildwood campus (DHSS) offers a variety of opportunities for food selection and consumption to employees. Vended snack options are among them. The Nutrition and Physical Activity Program for the Prevention of Obesity and other Chronic Diseases (NPAO) initiated a pilot project to vend healthier foods so that it could be determined if vending healthier snacks and food produced lower profits.

**Methods:** The vendor was guaranteed the same profit as the same month the previous year. DHSS employees were asked in a pre- and post-campaign survey about their attitude about having healthier foods vended and their likelihood of purchasing various items. Three types of promotion activities were conducted to make employees aware of the availability of healthier choices (education, experiential, and point of sale).

**Results:** Employees were generally satisfied with the healthier items that were offered, though some requested more sugar-free and caffeine-free selections. Though the vendor made as much as \$98.85 less than the same month the previous year on one of the snack machines, he made as much as \$225.74 more than the same month the previous year on another snack machine. For the three month period the profits increased \$671.99. The largest increase in profit was in the vending machine dispensing food and non-carbonated beverages.

**Conclusion:** Stocking as much as 50-60% healthier items to vending machines provided acceptable profits for the vending business. In addition, a market for sugar-free and caffeine-free foods was detected. A kick-off event, taste-testing opportunities, or point-of-sale signage may encourage purchases of healthier items.

**Key Words:** vending, profit, nutrition, worksite, worksite health promotion committee.

# **Healthier Vending Campaign**

## **Pilot Project of the Worksite Health Promotion Committee**

### **Introduction**

Although an adult working 40 hours a week may spend only 35% of his/her waking hours at work, we estimate 43% of the person's snacks and meals occur within the 8-hour work days. Thus, the influence of the nutritious level of the foods available to employees can be significant contributions to the employees' health. The purpose of the vending pilot project was to explore the sustainability of the market for healthier items in the Department of Health and Senior Services' (DHSS) vending machines. DHSS marketed and supported the healthier foods for a limited time period to provide the opportunity for the distributor to experience vending of healthier foods without risk of loss of profit. In turn, DHSS provided promotion of healthier items by signage, education, contests, and assessment of the market for healthier machine-vended items.

### **Methods**

#### **Setting:**

DHSS is a very health conscious environment; 65% of the employees have been known to participate in the more popular health promotion activities of the Worksite Health Promotion Committee.<sup>i</sup> The chance of success of vending healthier foods at DHSS is probably more likely than in most agencies. At DHSS the vending machines are located in the break rooms, visible upon entry to the rooms. Two buildings have vending machines, 912 and 920. Other snacking opportunities are common throughout the buildings and at a café in the 930 building, which serves snacks, beverages, and meals, though it offers a different environment - of sights, sounds, smells, and social opportunities lacking in the vending machine areas. Because of the location of the vending machines, it is likely that the purchasing from vending machines is a planned purchase rather than an impulse purchase. A planned purchase can be specific to brand or item, general, such as chocolate, or a substitute purchase. Price, selection, and desire typically are part of the planned purchase, but the Worksite Health Promotion Committee wanted to add nutrition as a consideration.

#### **The Intervention:**

The Healthier Vending campaign began on November 1, 2006 and continued until January 31, 2007. The campaign used three types of intervention: education, experiential, and point-of-sale. The campaign kick-off, held on November 8, 2006, featured a motivational speech by Director Julie Eckstein as well as educational and experiential incentives. The kick-off event offered a session about understanding nutrition labeling, taste-testing of seven healthier items, and the announcement of a prize drawing for a wrapper contest. For the wrapper contest, participants were to attach their name and contact information to a wrapper of a healthier vended snack and place the wrapper in a box for a drawing. A wrapper was randomly drawn and a 3-month membership to the YMCA was awarded.

Three brainteaser question contests were held from November to December (Appendix A). Each brainteaser question was emailed to the Wildwood Complex employees; it contained a question and a source for the answer on the Internet. Prizes were awarded in a random drawing of those with the correct answer.

The last intervention was a point-of-sale intervention in which healthier vended items were identified with a sticker. The stickers were either A's or I's, indicating items from the Advanced and Intermediate lists of healthier vended items, according to the Missouri Eat Smart Guidelines ([http://dese.mo.gov/divadm/food/PDF/eat\\_smart\\_guidelines.pdf](http://dese.mo.gov/divadm/food/PDF/eat_smart_guidelines.pdf)). However the stickers adhered poorly and were only available for the first week or two.

During the intervention period, 28 healthier vended snacks were offered. These additions included mostly crackers, chips, trail mixes, nuts, popcorn, granola bars, pretzels and popcorn (Table 1).

Table 1. Healthier foods provided during the Healthier Vending pilot project.

Item		Item
Sun Chips Harvest Cheddar	Dole Tropical Fruit Salad	Nutra-Grain Bar Apple Cinn.
David Sun Flower Seeds	Dole Peach Slices	Nutra-Grain Bar Strawberry
Baked Doritos Nacho Cheese	Dannon Cherry Yogurt 99% Fat Free	Kar's Sweet and Salted Mix
Sun Chips Garden Salsa	Dip 'n Sticks Carrots and Ranch	Kar's Salted Peanuts
Chex Mix Traditional	Deja Blue Water	Zoo Animal Crackers
Act II Popcorn Lite Butter	Kelloggs Corn Flakes	Planters Trail Mix
Braids Holiday Pretzels	Kelloggs Rice Crispies	Pop Tart Brown Sugar and Cinnamon
Welch's Fruit Snacks	Kelloggs Smart Start Cereal	Pop Tart Strawberry
Double Barrel Cooked Salami	Quaker Instant Oatmeal	Natural Valley-Oat/Honey Granola Bar
Propel Fitness Water		

The market's buying pattern and interest in healthier vending was assessed through pre- and post-campaign surveys (Appendices B, C). The surveys were provided over the intranet to DHSS employees at the Wildwood Complex.

## Results

Responses were collected from 484 (58%) employees on the pre-campaign survey. The post-campaign survey was distributed 6 months later; 151 of 866 (17%) employees responded, 71 of 151 (47%) purchased in the 920 building exclusively and 32 of 151 (21%) purchased exclusively in the 912 building. Together the surveys assessed the potential market, barriers and facilitators to purchases of healthier vended items, and satisfaction of customers and the vendor.

### Market:

The market for healthier vended foods seems to exist and be sustainable at DHSS. Only half the responding employees pre-campaign responded as having sometimes or often purchased foods or beverages from vending (2 no answer). Of the 50 (10%) who responded as never purchasing from vending machines, 38% cited the lack of healthier food choices, while 26% reported cost, as the barrier (Table 2). Six months later, on the post-campaign survey, half (74 of 151; 49%) the respondents said they were still making healthier selections, while a third (50 of 151; 33%) were not (27 of 151, 18% no answer).

Table 2. Categories of barriers reported by pre- and post-campaign respondents to the question, "if [you] never [purchase from vending at work], why not?".

	Pre-Survey Total		Post-Survey Total	
	#	%	#	%
Total	50	*	40	*
Access	8	16.0	13	32.5
Health	19	38.0	10	25.0
Cost	13	26.0	11	27.5
Uncategorized	13	26.0	9	22.5

\* Total percent will not equal 100% due do multiple answers on surveys.

Most employees (77%) wanted healthier choices in the vending machines. Most wanted to purchase the healthier items at the same or lower prices but some pre-campaign respondents

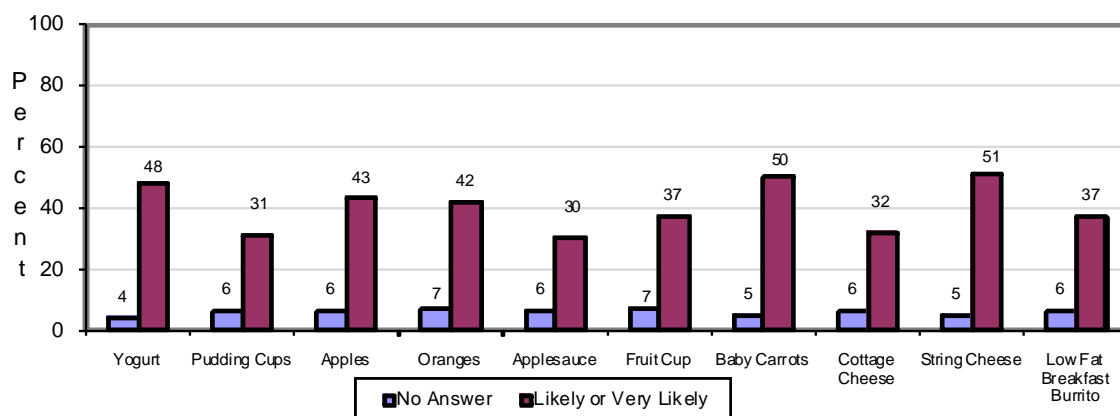
(20%) would be willing to pay more for healthier items, though fewer post-campaign respondents said they would (8%) (Table 3).

Table 3. Willingness of pre- and post-campaign respondents to pay more for healthier items.

	Pre-Survey Total		Post-Survey Total	
	Count	Percent	Count	Percent
No answer	10	2.0	21	13.9
Much more expensive	2	0.4		0.0
A little more expensive	95	20.0	11	8.5
The same price	230	48.3	56	43.1
A little cheaper	98	20.6	45	34.6
Much cheaper	51	10.7	18	13.8

To gain insight into what food items were of interest to employees, we asked them what they would like to have vended. DHSS employees were asked what foods they would like to have vended in the chilled food, beverage, and snack machines. Among chilled selections, pre-campaign survey respondents reported that they would be most likely to purchase yogurt (48%), baby carrots (50%), and string cheese (51%). Fruits would be almost as likely: apples (43%), oranges (42%) and fruit cup (37%) (Figure 1).

Figure 1. Chilled items of interest to pre-campaign respondents.



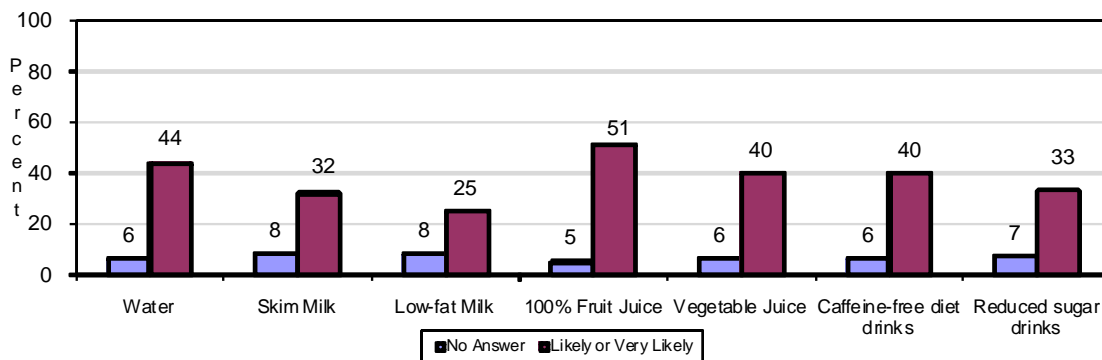
The healthier chilled items that were provided during the pilot project were primarily preserved fruits and breakfast items: Quaker Instant Oatmeal Golden Brown Sugar, Dole Tropical Fruit Salad, Dole Peach slices, Corn Flakes, Kellogg's Rice Krispies, and Dannon

Cherry Yogurt 99% fat free. Carrots with dip were available for about a week: Dip'n Sticks-Ranch and Carrots.

Among beverage selections suggested, respondents to the pre-campaign survey reported that they would be most likely to purchase water (44%), 100% Fruit Juice (51%) and almost as likely to purchase vegetable juice (40%) and caffeine-free diet drinks (40%) (Figure 2).

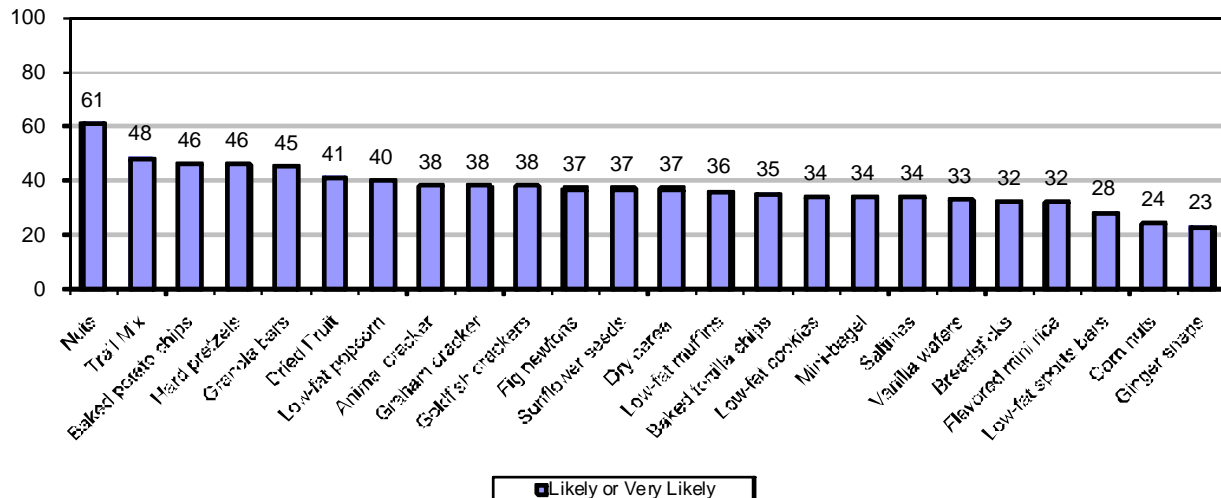
Beverages provided during the pilot-project were: Deja Blue water and Propel Fitness Water.

Figure 2. Beverages of interest to pre-campaign survey respondents.



Among snack foods, nuts (61%), baked potato chips (46%), hard pretzels (46%), trail mix (48%) and granola bars (45%) were reported as items that responding employees would be most likely to purchase (Figure 3).

Figure 3. Snack foods of interest to pre-campaign survey respondents.



When asked pre-campaign, what else they would like to have vended, a total of 3 or more responding employees suggested: 100 calorie snack packs, ice cream, sugar-free gum, bananas, flavored water, canned soup, frozen prepared meals, cold sandwiches, heat-able sandwiches, medicines, salads, tea, foods a diabetic can have, veggie snack packs, sugar-free or low/no carbohydrate items, raisins, and beef jerky.

#### Barriers to Healthier Purchases:

Bad experiences can be deterrents to future purchases; so it was important to assess availability and quality of the product. Although only two-thirds of post-campaign survey respondents answered the question series on product quality, a third of those who answered the question found that their item was sometimes sold out. Two people (1%) reported products that were outdated and one reported a stale item. It seems that preferred healthier items sold out on occasion and that outdated occurred infrequently (Table 4).

Table 4. Report of post-campaign survey respondents finding their preferred healthier snack sold out.

How often was your healthier snack choice sold out?	Frequency	Percent
No answer	45	29.8
Always	5	4.7
Sometimes	40	37.7
Never	61	57.5

#### Facilitators to healthier purchases:

A variety of promotional activities were part of the healthier vending campaign. The stickers, wrapper contest, and brain teasers required less planning and funds than the kickoff, though the kickoff set the stage for the other activities. Respondents reported that the kickoff event was the most encouraging intervention, though the point-of-sale stickers were listed as often as the other promotions (Table 5).



Table 5. Reported success of methods of facilitating healthier choices in vending machines as assessed from the question, “Which of the following encouraged you to purchase a healthier vending snack?”.

Method	Count	Percent
Kickoff	30	46.2
Stickers	17	26.2
Wrapper Contest	14	21.5
Brain Teasers	11	16.9
No Answer	86	57.0

Cost can influence a purchase. Though contradictory data regarding attitudes around cost were observed among responses to the various questions on the pre- and post-campaign surveys, direct inquiry suggested that the price of healthier items during the pilot time period was not an issue (Table 6).

Table 6. Post-campaign respondents consideration of pricing of healthier vended snacks.

In choosing a healthier snack, did you think that the product was reasonably priced?	Frequency	Percent
No answer	39	25.8
Strongly agree	2	1.8
Agree	68	60.7
Disagree	25	22.3
Neither agree or disagree	17	15.2

#### Customer Satisfaction:

Not many of the requested vended healthier foods were provided, so it was important to determine the level of satisfaction of the customers. Most respondents were satisfied with the selection offered during the pilot project (Table 7).

Table 7. Post-campaign respondents indicate their satisfaction with the selection of healthier items offered.

I like the healthier options that are now in the vending machines at the DHSS (check one): strongly agree, agree, disagree, neither agree or disagree.	Frequency	Percent
No answer	15	10.0
Strongly agree	29	21.3
Agree	60	44.1
Disagree	18	13.2
Neither agree or disagree	29	21.3

Post-campaign respondents had a higher preference for beverages other than soda, baked chips/Chex Mix/popcorn, animal crackers, nuts, and trail mix. Post-campaign respondents also added canned fruit and yogurt to the list of favorites (Table 8).

Table 8. Categories of items listed as frequent purchases by pre- and post-campaign respondents in response to the question, “Type the name of the item you most frequently purchase from a vending machine at DHSS”.

	Pre-Survey Total Responses		Post-Survey Total Responses	
	#	%	#	%
Total	412		116	
Soda	257	62.4	36	31.0
Chocolate Candy Bar	56	13.6	20	17.2
Chips	34	8.2	8	6.9
Crackers	31	7.5	5	4.3
Pretzels	27	6.6	5	4.3
Water	23	5.6	6	5.2
Candy	19	4.6	1	0.9
Breakfast	17	4.1	9	7.8
Nuts	15	3.6	9	7.8
Beverage	15	3.6	8	6.9
Trailmix/Granola Bar	13	3.1	14	12.1
Cakes	12	2.9	2	1.7
Milk	8	1.9	2	1.7
Animal Crackers	4	1.0	9	7.8
Baked Chips/Chex Mix/Popcorn	4	1.0	9	7.8

\* Total percent will not equal 100% due do multiple answers on surveys.

Also: Pre: 4 gums, 2 meats, 2 soups, 2 dried fruits, and 1 canned fruit and Post: 3 gums, 3 canned fruits, 2 fruit-snacks, 3 yogurts, and 1 oatmeal.

The most popular items of the new healthier items offered as reported by the post-campaign respondents were: Animal crackers, Sun Chips Harvest Cheddar, Deja Blue Water, Welch's Fruit Snacks, and Planters Trail Mix.

Ideas offered by participants for improvements to healthier vending campaigns were: (1) provide a chart of the nutrient table for all items on the side of the machine to assist patrons seeking to make a healthier choice, and (2) stock 2:1 ratio carbohydrate to protein snacks, as well as sugar-free, and caffeine-free items (some citing health issues such as diabetes).

#### Vendor satisfaction and profit:

The vendor reported an increase in revenue during the campaign of 5.9%, 16.4%, and 6.2%, over the respective month of the previous year's profit for a total of \$671.99, therefore, reimbursement was not necessary (Range for machines: -\$98.85 to +\$225.74, Table 9). Nearly half (47.8%) of the increase was from the chilled food vending machine in the 920 building, followed by the snack machine (39.8%) in the same building. The vendor reported a loss of \$71.47 for the 3 months from expiration of milk, yogurt, and carrots with ranch dressing; about half the loss was from expiration of 32 packages of carrots with ranch dressing. Because the carrot sticks are seasonally available and were stocked at the end of the season (at our request), it had a shorter shelf-life. He reported a loss of \$29.20 of yogurt due to competitive pricing, because the price was set the same as that at the onsite cafe.

Table 9. Comparison of vendor's profits with previous year.

Building	Contents	November Difference	December Difference	January Difference	Total
920	Snack	-40.25	225.74	81.85	267.34
920	Can soda on left	-53.95	71.05	-21.60	-4.50
920	Chilled Food	37.05	194.15	90.10	321.30
920	Can soda on right	-28.20	92.25	7.55	71.60
912	Snack	145.55	-98.85	-17.25	29.45
912	Can soda on 1 <sup>st</sup> floor	112.70	-64.80	0.10	48.00
912	Can soda on 3 <sup>rd</sup> floor	-30.75	-24.50	-5.95	-61.20
	Total:	142.15	395.04	134.80	671.99

The vendor was interviewed about his experience with vending healthier items (Appendix D). The vendor for DHSS at International Blends, found the pilot project a positive experience that required little or no deviation from standard procedures for a vending enterprise.

When asked if healthier items were more difficult to stock or to vend, i.e., caught in machines, slide through, etc.? He said ‘No. He was not aware of problems with the mechanics.’ And when asked, “What pricing advice would you give another vendor who wants to vend healthier foods?” he said, ‘Keep the standard operating pricing structure as much as possible, but be flexible to the customer (listen to the customer) and be aware of local competitors.’ When asked, “How would you go about vending healthier foods to other locations, that is what changes would you make?” he said, ‘Do it the same way. Stock many items for sampling the market then keep the items that sold.’ The vendor also mentioned that “shrinkage” or loss of inventory due to damages, out-dating, spoilage, and physical damage like dropping during the pilot project, was maintained within the 1-3% that is normal for the company. He said the acceptable industry standard for shrinkage is 5-7%.

Unfortunately, the concerns he had at the beginning of the pilot project persisted after the experience of vending healthier items as well. His business concerns were ‘Filling the machines with products that do not sell.’ Other persistent concerns were: loss of sales, increased time on routes resulting from watching dates and pulling expired products, and products going bad.

His advice to vendors considering healthier vending was: ‘Consult your supplier using the Missouri Eat Smart Guidelines. Work closely with your distributor and stock items that are in the “advanced“ and “intermediate” tiers. Vendors are not able to put in all healthy items – only 10-15 items. Slow sellers need to be pulled. Communicating with the organization makes it a team effort. Need a key contact so customers are not using the driver for feedback [driver’s time].’ Upon follow up, we discovered that 10-15 items was 50-60% of the capacity of the machine and the vendor wishes to achieve a balance so that both customer markets find acceptable choices. The vendor also mentioned that the majority of the cold food machines in operation in Missouri, the carousels, do not display foods as well as the new glass front beverage-max machines. The new machines make it easier to view the products and the machines appear fuller even when partially stocked. The carousel chilled food machine was stocked at a higher rate than demand but still appeared nearly empty, he said.

“Did better than originally expected in this location. In general there is a misconception that vendors want to sell junk food – in reality we want to put in foods that will sell. International Blends is not against vending healthy foods – we want to provide products that sell.”

## Conclusion

The Healthier Vending pilot project was a success from the standpoint of both the consumer and the vendor. The vendor showed increased profit and sustained demand for many of the healthier products. Many employees responding to the post-survey 6 months after the kickoff, reported continued selection of the healthier items. DHSS employees found the offered items appropriately priced. Many of the comments that were offered described a desire for better access to the vending machines and for specialized items such as sugar-free and caffeine-free selections. Of interest, the kickoff was selected as the most encouraging intervention activity for purchasing healthier items. Further inquiry is needed to specifically say which aspect of the kickoff was most influential, however a kickoff of this kind is a relatively inexpensive way to promote a product or concept. The point-of-sale decision prompts – the stickers - were only posted for a couple weeks, but were reported about equally to the contests in influencing choices. It seems that people considering purchase from vending have diverse dietary needs or desires and that more diverse vending – vending that includes healthier selections – can be profitable.

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<sup>i</sup> Dale Brigham. 2004. Summary of 2004 M0ve Challenge Results. Missouri State Department of Health and Senior Services. Internal Report. 1 p.

## APPENDIX A BRAIN-TEASERS

December 6, 2006

E-mail to Wildwood regarding healthy vending project.

Subject: ***Got Health?*** Quiz Question #3

*Your e-mail reply may win a prize!*

Please email [Glenda.Schroder@dhss.mo.gov](mailto:Glenda.Schroder@dhss.mo.gov) the correct answer by 5:00 p.m. today and you will be entered in the prize drawing.

Approximately how many calories are in a **1.74 oz. (49 grams)** package of Peanut M & Ms from the DHSS 920 Wildwood break room vending machine?

- A. 125 calories
- B. 200 calories
- C. 250 calories
- D. 515 calories



To help you solve this quiz question, go to:

<http://us.mms.com/us/about/products/peanut/> or

<http://www.nal.usda.gov/fnic/foodcomp/search/>.

***Hint: be sure to use the correct serving size.***

***Got Health?*** quiz is a segment of the DHSS healthier vending awareness project. All prizes were donated.

December 8, 2006

E-mail to Wildwood regarding healthy vending project.

Subject: *Got Health?* Quiz Question #2

**Win a Prize for the correct answer!**

Please email [Glenda.Schroder@dhss.mo.gov](mailto:Glenda.Schroder@dhss.mo.gov) the correct answer by 5:00 p.m. today and you will be entered in the prize drawing.

Approximately how much total fat is in a **1 oz. (28 grams)** package of Lays Classic potato chips available from the DHSS 920 Wildwood break room vending machine?

- 5 grams
- 8 grams
- 10 grams
- 18 grams

To help you solve this quiz question, go to:

<http://fritolay.ca/nutrition/> or  
<http://www.nal.usda.gov/fnic/foodcomp/search/>.



***Hint: be sure to use the correct serving size.***

**\* *Got Health?* quiz is a segment of the DHSS healthier vending awareness project. All prizes were donated.**

December 15, 2006

E-mail to Wildwood regarding healthy vending project.

Subject: *Got Health?* Quiz Question #1

***Your e-mail reply may win a prize!***

During the next three weeks, you will receive a total of three *Got Health?* quiz questions. Participation is voluntary, but we hope you'll choose to do so. Participants providing the correct answer will be entered into a drawing for prizes.

Please email [Glenda.Schroder@dhss.mo.gov](mailto:Glenda.Schroder@dhss.mo.gov) the correct answer by 5:00 p.m. today and you will be entered in the prize drawing.

Approximately how much sugar is in a **12 oz. can** of regular coke available from the DHSS 920 Wildwood break room vending machine?

- E. 2 teaspoons
- F. 1 Tablespoon
- G. 3 to 4 Tablespoons
- H. 10 Tablespoons



To help you solve this quiz question, go to:

[http://education.wichita.edu/caduceus/examples/soda/soda\\_index.html](http://education.wichita.edu/caduceus/examples/soda/soda_index.html).

***Got Health?*** quiz is a segment of the DHSS healthier vending awareness project. All prizes were donated.



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dhssnet home >> Vending Survey



## Department of Health and Senior Services Worksite Health Promotion Committee Vending Survey

In an effort to provide healthier options in DHSS vending machines, the Worksite Health Promotion Committee is conducting a survey of your preferences. Please complete the survey by May 17, 2006. Questions concerning the survey should be directed to Anita Berwanger at 522-2820.

1.	How often do you purchase foods or beverages from a vending machine at DHSS?	<input type="radio"/> Never	<input type="radio"/> Rarely	<input type="radio"/> Sometimes	<input type="radio"/> Often
2.	If never, why not?				
3.	Type the name of the item you most frequently purchase from a vending machine at DHSS.				
	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither agree nor disagree</b>	<b>Agree</b>	<b>Strongly agree</b>
4.	I would like healthier options in vending machines at DHSS (select one):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<b>Much cheaper</b>	<b>A little cheaper</b>	<b>The same price</b>	<b>A little more expensive</b>	<b>Much more expensive</b>
5.	Compared to the cost of current				

items, I would purchase healthy items in a DHSS vending machine if priced (select one):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Please rate the likelihood of you purchasing the following items if they were available in DHSS vending machines by clicking on the number that best represents your rating.					
<b>Chilled Snacks</b>	<b>1= not likely</b>	<b>2= somewhat likely</b>	<b>3= likely</b>	<b>4= very likely</b>	<b>Additional Suggestions</b>
Low-fat yogurt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Pudding Cups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Apples	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Oranges	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Applesauce	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Fruit cup in juice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Baby carrots	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Cottage cheese	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
String cheese	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Low fat breakfast burrito	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
<b>Beverages</b>	<b>1= not likely</b>	<b>2= somewhat likely</b>	<b>3= likely</b>	<b>4= very likely</b>	<b>Additional Suggestions</b>
Water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Skim milk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Low-fat milk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
100% fruit juice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
100%					

vegetable juice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Caffeine-free diet drinks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Reduced sugar drinks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
<b>Snack Foods</b>	<b>1 = not likely</b>	<b>2 = somewhat likely</b>	<b>3 = likely</b>	<b>4 = very likely</b>	<b>Additional Suggestions</b>
Nuts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Baked potato chips	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Animal crackers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Fig Newtons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Sunflower seeds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Graham cracker bites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Corn nuts, plain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Hard pretzels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Trail mix	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Dry cereal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Ginger Snaps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Low-fat cookies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
	<b>1 = not likely</b>	<b>2 = somewhat likely</b>	<b>3 = likely</b>	<b>4 = very likely</b>	<b>Additional Suggestions</b>
Low-fat sports bars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Dried fruit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Mini-bagel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Bread sticks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Flavored mini-rice cakes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____
Low-fat muffins	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____

Baked tortilla chips	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Vanilla wafers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Low-fat popcorn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Goldfish crackers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Saltines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
Reduced fat/reduced sugar granola bars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<hr/>
List other items you would purchase from DHSS vending machines, if available: <hr/>					

**APPENDIX C**  
**POST-CAMPAIGN SURVEY**

**Department of Health and Senior Services**  
**Worksite Health Promotion Committee**  
**Vending Survey**

In an effort to determine if the project increased the number of healthier options in DHSS vending machines, the Worksite Health Promotion Committee is conducting a survey of your preferences. Please complete the survey by **April 13, 2007**. Questions concerning the survey should be directed to Ellen Ehrhardt at 573-751-6203 or [Ellen.Ehrhardt@dhss.mo.gov](mailto:Ellen.Ehrhardt@dhss.mo.gov).

1. How often do you purchase foods or beverages from a vending machine at the DHSS?  
Never\_\_\_\_ Rarely \_\_\_\_ Sometimes \_\_\_\_ Often \_\_\_\_
2. If never or rarely, why not?  
\_\_\_\_\_
3. Write the name of the item you most frequently purchase from a vending machine at the DHSS. \_\_\_\_\_
4. Did you purchase any vending products during the Vending Pilot Project from November to January from DHSS?  
  
912 Building yes no\_\_\_\_ 920 Building \_\_\_\_\_yes no
5. I like the healthier options that are now in the vending machines at the DHSS (check one):  
  
Strongly agree \_\_\_\_\_ Agree\_\_\_\_\_ Disagree\_\_\_\_\_ Neither Agree or Disagree\_\_\_\_\_
6. Compared to the cost of current items, I would purchase healthy items in a DHSS vending machine if priced (check one):  
  
Much cheaper\_\_\_\_ A little cheaper\_\_\_\_ The same price\_\_\_\_ A little more expensive\_\_\_\_ Much more expensive\_\_\_\_
7. What healthier vending snack did you purchase during the pilot project? (Please check)

Sun Chips Harvest Cheddar	<input type="checkbox"/>
David Sun Flower Seeds	<input type="checkbox"/>
Baked Doritos Nacho Cheese	<input type="checkbox"/>
Sun Chips Garden Salsa	<input type="checkbox"/>
Chex Mix Traditional	<input type="checkbox"/>
Act II Popcorn Lite Butter	<input type="checkbox"/>
Zoo Animal Crackers	<input type="checkbox"/>
Planters Trail Mix	<input type="checkbox"/>
Braids Holiday Pretzels	<input type="checkbox"/>
Natural Valley- Oat/Honey	<input type="checkbox"/>
Double Barrel Cooked Salami	<input type="checkbox"/>

Nutra-Grain Apple Cinn.	<input type="checkbox"/>
Nutra-Grain Strawberry	<input type="checkbox"/>
Kar's Sweet and salted mix	<input type="checkbox"/>
Kar's Salted Peanuts	<input type="checkbox"/>
Quaker Instant Oatmeal Golden Brown Sugar	<input type="checkbox"/>
Dole-Tropical Fruit Salad	<input type="checkbox"/>
Dole Peach slices	<input type="checkbox"/>
Deja Blue water	<input type="checkbox"/>
Propel Fitrem H2O	<input type="checkbox"/>
Corn Flakes	<input type="checkbox"/>
Kellogg's Rice Krispies	<input type="checkbox"/>

Pop tarts-Strawberry	<input type="checkbox"/>
Pop tart Brown Sugar and Cinnamon	<input type="checkbox"/>
Dip'in Sticks-Ranch and Carrots	<input type="checkbox"/>
Kellogg's Smart Start	<input type="checkbox"/>
Welch's Fruit Snacks	<input type="checkbox"/>
Dannon Cherry Yogurt 99% fat free	<input type="checkbox"/>

	<input type="checkbox"/>
	<input type="checkbox"/>

8. Which of the following encouraged you to purchase a healthy vending snack?

Kick-off Vending Presentation\_\_\_\_\_

Stickers "A" and "I" \_\_\_\_\_

Snack wrapper contest \_\_\_\_\_

Brainteasers via email\_\_\_\_\_

9. How often was your healthier snack choice sold out?

Always\_\_\_\_\_ Sometimes\_\_\_\_\_ Never\_\_\_\_\_

10. In choosing a healthier snack, did you think that the product was reasonably priced?

Strongly agree \_\_\_\_\_ Agree\_\_\_\_\_ Disagree\_\_\_\_\_ Neither Agree or Disagree\_\_\_\_\_

11. Did you ever purchase a healthier snack from the DHSS vending machine between November 2006 and –January 2007 that was:

Outdated\_\_\_\_\_ Stale \_\_\_\_\_ Other \_\_\_\_\_

If so, which items? \_\_\_\_\_

**Comments:**

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**Thank You!**

## **APPENDIX D**

### **INTERVIEW WITH VENDOR**

To observe and describe one vendor's experience of vending healthier foods at DHSS following promotional education of the market.

What were your concerns when approached to participate in vending healthier foods?

Which of your concerns continue to concern you about vending healthier foods?

What if anything was a positive realization about vending healthier foods?

How would you go about vending healthier foods to other locations, that is what changes would you make?

What pricing advice would you give another vendor who wants to vend healthier foods?

Were healthier items more difficult to stock or to vend, i.e., caught in machines, slide through, etc.?

Did selling out of healthier items occur? If so, which items?

Was there waste due to out-dating?

If you were talking to a vendor who was going to be doing a project like this for other customers, what else would you tell him/her to make the project as successful as possible?