

INTERVENTION

Healthy Food Environments Pricing Incentives

NC Prevention Partners

The Duke Endowment

The NC Hospital Association

FirstHealth of the Carolinas (Moore Regional Hospital)



INTENT OF THE INTERVENTION

Healthy Food Environments is a practice-tested policy intervention developed by NC Prevention Partners to increase availability, visibility, and affordability of healthy foods and beverages for employees, volunteers, and visitors on hospital campuses. The intervention includes a pricing policy incentive to encourage purchase of healthier items (through a price decrease) and discourage purchase of less healthier items (through a price increase).

This is an organizational policy and environmental change intervention that targets individual behavior.

OVERVIEW

In 2006, NC Prevention Partners (NCP) was funded by The Duke Endowment in a partnership with the NC Hospital Association to help NC hospitals go 100% tobacco-free. In 2008, The Duke Endowment provided continued funding for NCP and the NC Hospital Association to further improve the health environment by promoting healthy eating for employees and visitors in NC hospitals.

The Healthy Food Environment (HFE) initiative is funded for three years with the goal that it will be fully implemented in more than 125 acute care hospitals across NC by 2011. The \$1.1 million grant is to transform hospital cafeterias, vending machines and food offerings at all hospital-related events.

There are five principles in the overall Healthy Food Environment initiative (see conceptual model):

- Provide access to healthy foods
- Use pricing to promote healthy foods
- Use marketing techniques to promote healthy foods
- Use benefit design & incentives to encourage behavior change, and
- Educate staff and visitors about healthy foods.

The Center of Excellence for Training and Research Translation's (Center TRT's) review of this intervention focused on implementation of the pricing principle at FirstHealth's Moore Regional Hospital.

Intended Population: Employees, volunteers, and visitors within hospital worksite settings

Setting: Worksite

Length of time in the field: Since October 2007

HEALTH EQUITY CONSIDERATIONS

Healthy Food Environments Pricing Policy (HFEP) is an organizational policy implemented by hospitals to increase availability, visibility, and affordability of healthy foods and beverages for their employees, volunteers, and visitors. The pricing policy incentive encourages the purchase of healthier items through a price decrease and discourages purchase of less healthier items through a price increase. In North Carolina, 95 hospitals have fully adopted the policy and 23 more have an action plan to reach full implementation. These hospitals are all sizes and located in all parts of the state. HFPP reaches 200,000 hospital employees and millions of visitors. Additionally, hospitals in South Carolina have begun implementing the Healthy Food Environments Pricing Policy.

CORE ELEMENTS

This section outlines the aspects of an intervention that are central to its theory and logic and that are thought to be responsible for the intervention's effectiveness. Core elements are critical features of the intervention's intent and design and should be kept intact when the intervention is implemented or adapted.

1. **Stakeholder input and buy-in:** Secure input and buy-in from upper management, food vendors, human resources/wellness, and other critical worksite staff. In addition, form a wellness committee to conduct formative research to better understand preferences, potential barriers, and ownership of cafeteria changes (pricing, access, and marketing), and develop an implementation and compliance plan.
2. **Nutrition Criteria/Standards:** Adopt and implement healthy food guidelines based on NCPP's established criteria or adapt the criteria to be more stringent (NCPP guidelines are posted with the materials for this template).
3. **Procurement Specifications:** Collaborate with vendors to offer healthy food and beverage items based on the established nutrition criteria.
4. **Training for Food Service Personnel:** Provide training for food service personnel on implementation of nutrition criteria, including healthy food preparation methods and portion sizes.
5. **Pricing Incentives:** Implement pricing incentives to encourage the purchase of healthier foods and decrease the purchase of less healthier foods. This may take the form of increasing the cost of less healthy options while decreasing the cost of healthier options or bundling healthy food items together for a reduced price as "healthy value meals."
6. **Marketing:** Post nutrition information at the point of service, use a uniform icon for healthy items, and position healthy items to be more prominent and accessible.
7. **Equitable Access:** Ensure that the same standards are implemented on site for all work shifts, i.e. that all shifts have access to healthy foods with a pricing incentive.

RESOURCES REQUIRED

Staff: It is essential that a multi-disciplinary wellness team within the worksite is assembled to assist with the planning, implementation, and maintenance of a healthy food environment, including the pricing policy.

There are several components to implementation, so members of the wellness team may take the lead for different responsibilities. For example, the Food Service Director may be responsible for working with the food vendor to determine the pricing points for the healthier (reduced price) and less healthier (increased price) items.

There does not need to be a designated full-time equivalent position for the work as it is carried out by the wellness team. While it will vary at each worksite, the anticipated hours invested in planning, implementation, and maintenance are as follows (actual work is described in “Implementation” section):

Planning: 2 hours/week for approximately three months
Implementation: 4 hours/week for three months
Maintenance: 1 hour/week ongoing to evaluate and sustain the program

Training: Worksites interested in implementing this intervention may benefit from training in menu redesign, pricing incentives, point-of-decision marketing, and communication to staff and visitors regarding changes in practices. NC Prevention Partners works with foundations, state and local stakeholders to provide the community and business sectors access to assessments, implementation tools, and trainings on nutrition, physical activity and tobacco worksite wellness policies through their WorkHealthy America initiative. (See contact information under **Additional Information.**)

Materials: The primary materials include items for marketing, such as developing/using an icon to identify healthy items and posting nutrition information. The cost to develop an icon varies. The cost is nothing/minimal if using an existing icon (many hospitals have their own wellness icon; NCPP offers the use of a no-cost healthy food icon). There is a modest cost to design a new icon, including contracting with a graphic artist and signage costs. Printing and posting nutrition information at the point of selection can vary and depends on how customers currently receive menu information. Some worksites use paper/print methods and others display information on a large television or computer monitor screen.

Other Costs: There may be initial costs to reimburse any loss of revenue due to price changes if this is negotiated as part of a contract with the food vendor. However, in worksites that have implemented the pricing policy, there is typically a leveling out or increase in sales within one year of implementation.

IMPLEMENTATION

The implementation steps described below are primarily for the pricing principle of the Healthy Food Environments intervention, along with supportive details regarding access and marketing.

How It Works:

Planning

- Ensure that senior administration is on board from the beginning, is a key part of communication to employees, and stays informed throughout the process. Securing executive-level support is key to successful implementation.
- Develop a wellness team with diverse representation from multiple departments. These members will be responsible for implementation of the policy. Representation will be varied at different worksites, but some roles/departments to consider include the executive team/senior administration, food service, dietitians, employee health/worksite wellness, and marketing/communications.

- Conduct formative research with your target audience to determine preferences and barriers re: purchasing healthier food items and beverages. This research can be achieved through employee focus groups in which all shifts and departments are represented. Establish pre-determined questions with facilitator to ensure consistency in obtaining information.
- Conduct an initial assessment of the food environment to establish the baseline, strengths, and areas for improvement. NCPP has developed WorkHealthy America, an online tool that inventories policies, environments, benefits, pricing, marketing/labeling, and educational efforts to provide feedback to worksites about their current practices.
- Develop an action plan to guide the collective effort that is agreed upon by all parties; assign timelines and parties responsible for implementing.
- Institutionalize changes to the food environment through inclusion in the policy manual, staff orientation, routine reviews of wellness goals, and direct communication from leadership via employee newsletters, intranet, etc.

Preparing the Food Environment

Access

- Use established nutrition criteria, for example USDA Dietary Guidelines or the guidelines developed by NC Prevention Partners, or develop your own set of science-based guidelines for healthy foods. The guidelines should be applicable to all venues at the worksite, including cafeteria, vending, catering, and other opportunities where food and beverages are sold or provided.
- Collaborate with contracted food services and food service vendors to develop procurement specifications consistent with nutrition criteria, i.e. identify and provide healthier alternatives to include as food items in the cafeteria, vending, and catering.
- Train food service personnel on appropriate portion sizes and healthier food preparation methods.
- Create the same equitable access by applying the policy to all shifts, and, if the cafeteria is not open, provide healthy options in vending machines.

Marketing

- Post nutrition information at the point of selection. It is preferable to label all foods, but you can start by labeling healthy items and regularly occurring items, and gradually add labels to other items. Additionally, post an easy-to-read menu with nutrition information at the cafeteria entrance and on the employee intranet.
- Use an icon consistently to identify the healthier items.
- Place the less healthy options in lower traffic areas of the cafeteria and position healthy meals in visible locations.
- Use price comparison displays to illustrate that eating healthy is the healthier, more affordable option.

Pricing

- Determine the pricing points for food/beverage items so as not to reduce revenue. There is no formula for determining the prices and approaches will vary at worksites. One site offered smaller portions at a decreased rate and increased prices on sodas to discourage consumption as a starting point. Other sites revised the full food and beverage menu to include healthier items at a reduced price and less healthier options at an increased rate. Formative work with your stakeholders may help with determining how to approach pricing points, as well.

- Once pricing points are determined, develop a pricing plan to incentivize healthy options. Lower the price of healthy options, increase the price of less healthy options, and/or provide “healthy value meals” that bundle healthy options for a reduced price.

Maintenance

- Monitor sales of items to assess the changes in sales.
- Conduct follow-up assessments through quarterly meetings with selected employees, online assessment, and/or paper surveys with staff to determine what they like/don't like about the Healthy Food Environment and refine the program based on staff input.
- Identify Wellness Team member to assess the food environment periodically (e.g. quarterly) to ensure the labeling, product placement, etc. is still active.

Keys to Success:

- Make it a win-win situation for your food service vendors; offer to reimburse them for any initial revenue losses for a designated trial period until revenue evens out or profit is generated.
- Communicate to staff so that food environment changes are linked to employee wellness benefits, ensuring that staff experience changes in a positive way. Use the cafeteria, vending, and other venues to market employee wellness benefits and use traditional employee communication channels to market food environment changes.
- Look to school wellness and vending initiatives as a model for change.
- Use the contract renewal period to negotiate changes focused on providing and promoting healthy foods.
- For those worksites without a cafeteria, promote low-cost or free healthy items (such as a community fruit bowl) or adapt the pricing policy by adjusting vendor contracts to require that a minimum of 40-50% of vending items meet nutrition criteria and are priced to promote healthier eating.

Barriers to Implementation:

- Existing contracts with food service vendors and distributors can delay contract negotiations and changes.
- Perceptions that staff prefer unhealthy foods creates concerns that healthy items will not sell well.
- Lack of executive level support makes it difficult to implement comprehensive policy change.
- Concern about the financial impact to the operational bottom line creates hesitancy to disrupt current sales strategies.

EVIDENCE REVIEW SUMMARY

Underlying Theory: Marketing is a primary guiding framework for implementation of the Healthy Food Environment pricing policy. This includes use of the four P's: product, place, price, and promotion.

Strategies Used¹: Healthy Food Environments uses the following evidence-based strategies for healthy eating:

¹ A full description of the intervention strategies used can be found on the Center TRT website with references to the sources of evidence to support the strategies.

- **Changing access and availability to favor healthy foods and beverages** by using procurement specifications with vendors to offer healthy items, training food service personnel on food preparation and portion sizes, and applying the policy to all work shifts;
- **Pricing strategies (including taxation) to favor healthy foods and beverages** that encourage the sale of healthier food/beverage items through lower pricing and discourage the sale of less healthy options through higher pricing; and
- **Point-of-purchase and point-of-decision labeling to favor healthy foods and beverages** by displaying nutrition information and using icons that identify healthier food/beverage items.

Research Findings and Evaluation Outcomes:

At FirstHealth’s Moore Regional Hospital (the site submitted for review), overall sales increased after nine months of implementation of the pricing incentive. However, it cannot be stated that this increase is due solely to the pricing incentive. Increasing access, marketing, and/or other variables may play a role, as well.

While not all data are displayed, here is an excerpt of sales data:

Grill item	Status	Old Employee Price	New Employee Price	'06-'07 volume	'07-'08 volume	% Difference
Hamburger	Traditional (less healthy)	\$1.00	\$1.75	4,725	2,583	-45%
Turkey Burger	Healthy	\$1.75	\$1.25	583	4,655	698%
Fried Chicken Sandwich	Traditional (less healthy)	\$1.95	\$2.50	2,223	1,127	-49%
Grilled Chicken Sandwich	Healthy	\$2.25	\$1.75	6,003	9,036	51%

POTENTIAL PUBLIC HEALTH IMPACT

The potential public health impact is high for this policy intervention.

Reach: The reach is broad, given that policy implementation will impact all employees and volunteers eating in the hospital cafeteria, as well as visitors. Reach at FirstHealth’s Moore Regional Hospital is estimated to be 80% of employees.

Effectiveness: Sales data provided indicate that the policy, along with supporting principles (e.g. marketing) have been effective at increasing the sales of healthier food items and decreasing the sales of less healthy items.

Adoption: There is good adoption of this policy intervention in hospitals across NC. At the time of review, there was full implementation (all five principles of HFE, including pricing) at thirty-six hospitals in NC. NCPP is funded by the Duke Endowment to have full implementation in more than 125 acute care hospitals within a three-year project period.

Implementation: Implementation requires buy-in from staff and other stakeholders. Implementing the pricing principle itself does not require many resources. It seems that it can be implemented at a relatively low cost. While there may be initial revenue lost during the pricing transition, it is likely that this loss of revenue will be recovered and profits realized in successive quarters. Given that the pricing principle is being implemented at other sites and has been implemented with success at FirstHeath's Moore Regional Hospital, it seems reasonable to expect that the intervention could be implemented as intended in similar settings with similar infrastructure.

Maintenance: It is not possible to assess the sustainability of this intervention due to its relative newness, but it seems reasonable to expect that after initial implementation, the intervention could be institutionalized over time with relative ease.

INTERVENTION MATERIALS

The following intervention materials are available to download from the [Center TRT website](#):

- **Conceptual Model** – one-pager conveying Healthy Food Environments in its entirety with all five principles: 1) provide access to healthy foods, 2) use pricing to promote healthy foods, 3) use marketing techniques to promote healthy foods, 4) use benefit design & incentives to encourage behavior change, and 5) educate staff and visitors about healthy foods
- **NC Map of Implementation** – map illustrating varying levels of implementation of HFE in North Carolina
- **2008 Survey Results of Healthy Food Environments Assessment in NC Hospitals** – this report summarizes the results of nearly 100 of the more than 125 acute care hospitals in the state
- **Nutrition Criteria** – includes food item categories (e.g. beverage, fruit/vegetable) and the nutrition criteria in terms of calories, total fat, saturated fat, trans fat, sodium, etc. informed by the USDA Dietary Guidelines, FDA requirements, and other key nutrition recommendations by nationally recognized organizations
- **Sample Action Plan** – provides example of plan of action to take to implement this policy intervention in a worksite
- **Sample Recipe**—PDF sample from our WorkHealthy America Recipe Database; includes cooking instructions and nutrition information
- **Sample Promotions** – PDF sample from our WorkHealthy America Nutrition Toolbox; snapshots and examples of nutrition labeling and icons in worksite cafeterias

EVALUATION MATERIALS

Center TRT developed an evaluation [logic model and evaluation plan](#) for a program similar to the Healthy Food Environments (HFE) Pricing Initiative reviewed by the Center TRT. The logic model is intended to guide the evaluation process (as opposed to the planning process); the evaluation plan focuses on the implementation and effectiveness of an HFE pricing initiative at increasing availability, visibility, and affordability of healthy foods on hospital campuses. The evaluation addresses the reach, adoption, extent of implementation and effectiveness of an HFE pricing initiative at changing environments and behaviors related to healthy eating. The evaluation is a pre-post design. This evaluation plan provides guidance on evaluation questions and types and sources of data for both process and

outcome evaluation. If you are interested in answering evaluation questions not listed in the evaluation plan, please refer to the list of additional evaluation questions, which you can find [here](#). We suggest a variety of data collection tools throughout the evaluation plan.

TRAINING AND TECHNICAL ASSISTANCE

NC Prevention Partners is a non-profit organization located in Chapel Hill, NC and works nationwide with foundations, state and local stakeholders to provide the community and business sectors access to assessments, implementation tools, and trainings on nutrition, physical activity and tobacco worksite wellness policies through our WorkHealthy America initiative. Contact NC Prevention Partners for additional information regarding access to tools and available training.

Additionally, a Center TRT archived webinar presentation is available on the implementation of Healthy Food Environment's Pricing Incentive program, which includes an overview of the intervention, its core elements, summary of evidence and potential for public health impact. You can access the archived webinar from the Center TRT website.

ADDITIONAL INFORMATION

Web links: www.ncpreventionpartners.org

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