



# Moving Toward Healthier-Eating Environments in Hospitals

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**The American Medical Association and other groups call for health-promoting foods to be served in hospitals and other healthcare facilities. This article describes ways to accomplish this goal. *Nutr Today*. 2010;45(2):54–63**

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In addition to providing healthcare, people expect hospitals to provide health-promoting foods. Professional associations such as the American Medical Association and American Dietetic Association do as well.<sup>1,2</sup> Hospitals sometimes fall short of the mark. In 2006, the American Medical Student Association launched a media attention-grabbing campaign to remove “unhealthy foods” from hospitals, especially from children’s hospitals. The students’ concern was stimulated by the proliferation of commercial fast-food outlets on hospital campuses. With rising obesity and chronic disease risks, there is a public health movement based on the socioecological model to change policies and environments to support healthy eating and increased physical activity. Although, ultimately, it is individuals who must change their behavior, individuals need environments and policies that support the health behavior change they are attempting. In this case, hospital employees need easy access to affordable healthy foods and beverages. It is widely assumed that when healthy eating and physical activity are the norm rather than the exception, obesity and its health risks for many individuals will be reduced. Public health professionals believe that hospitals, as institutions of healing, should be role models of healthy food environments. Some of the strategies being used to create “healthy” hospital food and beverage environments are described in this article. Also discussed are challenges that hospital administrators, dietitians, and food service professionals encounter while trying to make healthy choices more accessible.

## Healthy Eating

The term *healthy-eating environment* is rarely defined. It might be described as an environment where customers can obtain fruits, vegetables, whole grains, and low-fat, low-sugar foods and beverages, in reasonable portion sizes and at affordable prices. Others might expand the definition of *healthy* to include farm management approaches and describe an environment where customers can choose foods that are “sustainably farmed,” “organic,” or “raised without hormones or antibiotics.” These 2 definitions are not mutually exclusive. For example, a hospital cafeteria might offer a low-fat vegetarian entree prepared with organically grown whole grains.

*Although many call for healthy-eating environments, this term is rarely defined.*

## The Hospital

Hospitals are complex businesses with a primary role of providing lifesaving care to people at very vulnerable points in life. Hospital food service is one of many patient support services and includes preparation and delivery of therapeutic diets to patients.<sup>3</sup> In addition to patients, food services are provided for the hospital and medical staffs, visitors, and outpatients, available 24 hours a day in cafeterias, coffee shops, commercial fast-food operations, and hot and cold vending areas. In many communities, the medical center is a major employer, and the number of nonpatient food service customers may actually exceed the number of patients. This article focuses on what is often referred to as the “retail operation” or meals and snacks not included in the daily room charge. To encourage healthy

eating in hospitals, many environmental barriers must be addressed. For example, hospital clinical staff often works 12-hour shifts with limited breaks for meals. They want accessible, quick service and affordable meals, beverages, and snacks. Some employees expect free or low-price meals as an employee benefit.<sup>3</sup> Both hospital staff and visitors may seek “comfort” foods such as chocolate, large cookies, fried chicken, creamy potatoes, macaroni and cheese, and other familiar foods that are typically higher in fat, sugar, and sodium.<sup>4</sup> The retail customers of hospital food services then differ in what foods they want, how they get food, and what they expect to pay.

*The number of nonpatient food service customers far exceeds the number of patients served.*

Since the 1970s, increasing numbers of hospitals have contracted with food services management companies for the food served to patients as well as sold or provided to others in the hospital setting. Hospital administrators often expect hospital food services to be revenue generating, and in response, vendors try to maximize sales volume.<sup>5</sup> The American Medical Association urged healthcare facilities to select vendors who shared their commitment to the health of patients, staff, and visitors and who would offer affordable and healthier items. However, marketing research has not demonstrated a substantial customer base for these healthier items, especially if they are more expensive. However, with the increase in obesity and chronic disease rates among their workforce, administrators are beginning to revisit their policies on food service and are beginning to understand that work-site environments can positively and negatively affect the health behaviors of their employees. Unfortunately, as administrators look for tools to assess their workplace environmental characteristics, they will not find an accepted standard by which to measure a healthy hospital eating environment. Those standards developed for foods and beverages served in the school environment<sup>6</sup> are thought to be too restrictive for adult work-site settings.

### Further Defining Healthy-Eating Environments

Although there is little evidence that changing types of foods and beverages available to hospital employees and guests will positively impact their health, policy and

environmental changes are occurring. This part of the article describes how different groups are defining healthy-eating environments.

Most efforts to define healthy-eating environments use a nutrient-based approach and create standards for meals or entrees. The findings from the Keystone Foundation’s 2006 “Away From Home Foods” study serve as one guide to hospital food service standards.<sup>7</sup> It recommends an emphasis on the promotion of less-calorie-dense foods including fruits, vegetables, skim milk products, whole grains, and foods low in saturated fat. It also recommends smaller portion sizes at reduced price, lower-calorie options, and “easy-to-use” point-of-purchase nutrition information. Some hospitals have developed their own programs, whereas others have adopted national programs such as the “Winners Circle Healthy Dining Program” or management company–developed programs such as Sodexo’s “Wellness and You” or ARAMARK’s “Just 4 U.” Examples of definitions are in Table 1.

Some believe that it is sufficient to give the customer information about the portion size and nutrition content through a label. Many others believe that information alone is insufficient to motivate most consumers to select healthier food. Customers may not have the time or the inclination to seek out and combine healthy items into a healthy meal. In response, dietitians are partnering with the food service operators and identifying at least 1 healthy meal option and ensuring its availability for all shifts. Some also use a pricing or other incentive policy to drive customers to the daily healthy choice. The implementation of this strategy meets few barriers as compared with the implementation of a policy to allow only healthy food and beverages be served. This is a policy change that many hospitals can successfully implement. Food service operators note that it is difficult to identify and serve popular meal items that meet the Food and Drug Administration criteria for “healthy” (Table 1). As a result, some are proposing less restrictive criteria, especially for cholesterol and sodium. For example, the Web site [healthydiningfinder.com](http://healthydiningfinder.com) defines a *healthy restaurant entree* as having a maximum of 750 cal, 25 g of total fat, and 8 g of saturated fat and including fruits, vegetables, and 100% whole grain and use of lean protein. The Nutrition Environment Measures Study for Restaurants assessment tool gives credit to restaurants for offering entrees that have less than 800 cal, have healthy foods available, and have facilitators to healthy eating such as pricing and signage promoting healthy foods.<sup>8</sup> Nutrient-based standards are also being applied to products sold in vending machines, which, in many hospitals, help meet the round-the-clock needs of hospital employees and visitors. There is little consensus on what constitutes healthy vending (Table 2). The

Table 1. Sample of "Healthy" Criteria

	ARAMARK Just 4 U "Heart Healthy" (www.diningstyle.com/just4u.htm)	Winner's Circle (www.winnerscircle.healthydining.com)	NC Prevention Partners (http://www.ncpreventionpartners.org/)	Sodexo's Wellness and You (www.wellness-and-you.com)	University Health Systems (www.aramarkcafe.com/universityhealthsystems)	
Examples of meals, food items	<p>FDA "Healthy" (www.cfsan.fda.gov)</p> <p>Low in fat, saturated fat, limited in cholesterol, sodium</p> <p>&lt;5 g fat/reference amount and 100 g Saturated fat/same &lt;2 g Cholesterol/same &lt;95 mg Sodium &lt;360 mg At least 10% of vitamins A and C, iron, calcium, protein, or fiber</p> <p>"Lean"</p> <p>Total fat &lt;10 g Saturated fat &lt;4.5 g Cholesterol/same as above &lt;95 mg</p> <p>Extra lean</p> <p>Total fat &lt;5 g Saturated fat &lt;2 g saturated fat Cholesterol/same as above &lt;95 mg</p>	<p>Heart Healthy</p> <p>Calories from fat &lt;30%</p> <p>Calories from saturated fat &lt;10%</p> <p>Cholesterol/100 g &lt;20 mg</p> <p>Sodium &lt;480 mg</p> <p>Low fat</p> <p>Calories from fat &lt;30%</p> <p>Cal Smart &lt;300 cal/serving</p> <p>Carbohydrate counter &lt;15 g/serving</p> <p>Vegetarian: no meat, fish or poultry except dairy, eggs, and honey</p>	<p>Calories/meal &lt;1,000</p> <p>Calories from fat &lt;30%</p> <p>Calories from saturated fat &lt;10%</p> <p>Trans-Fat: zero</p> <p>Must also have at least 2 Servings fruit/vegetables</p> <p>1 Serving of grains or beans or 245 mg calcium</p> <p>Calories &lt;400 cal</p> <p>Fat &lt;30% calories from fat</p> <p>Saturated fat &lt;10% calories</p>	<p>Main dish</p> <p>Calories &lt;550</p> <p>Calories from saturated fat &lt;10%</p> <p>Sodium &lt;800 mg</p> <p>Trans-Fat (negligible)</p> <p>Meal</p> <p>Calories &lt;800</p> <p>Calories from fat &lt;35%</p> <p>Calories from saturated fat &lt;10%</p> <p>Trans-Fat: negligible</p> <p>Sodium &lt;1,000 mg/meal</p> <p>Must include 2 or more of fruit/vegetable, whole grain, lean protein</p>	<p>Entrees</p> <p>Calories &lt;500</p> <p>Fat &lt;15 g</p> <p>Cholesterol &lt;100 g</p> <p>Sodium &lt;1,000 mg</p> <p>Sides</p> <p>Calories &lt;225</p> <p>Fat &lt;8 g</p> <p>Cholesterol &lt;5 mg</p> <p>Sodium &lt;400 mg</p>	<p>Calories &lt;600/meal</p> <p>Calories from fat &lt;35%</p> <p>Calories from saturated fat &lt;10%</p> <p>Trans-Fat: zero</p>
Snack		<p>Calories &lt;200</p> <p>Fat &lt;30% calories from fat</p> <p>Sodium &lt;480 mg</p> <p>Sugar &lt;35% by weight</p> <p>Must also contain 120 mg calcium/4 oz, 150 mg calcium/6 oz, 245 mg calcium/8 oz</p>	<p>Calories &lt;200</p> <p>Fat &lt;35%<sup>a</sup></p> <p>Saturated fat &lt;10% (100% nuts or seeds are exempt)</p> <p>Sodium &lt;480 mg<sup>a</sup></p> <p>Sugar: max 35% calories</p>	<p>Desserts</p> <p>Calories &lt;300</p> <p>Fat &lt;10 g</p> <p>Cholesterol &lt;25 g</p> <p>Sodium &lt;300 mg</p>	<p>Calories &lt;200</p> <p>Total fat &lt;5 g</p> <p>Sodium &lt;500 mg</p> <p>Recommended 1 g dietary fiber</p> <p>Sugar &lt;30% of calories</p>	

Beverages	Water, flavored waters <50 cal/8 oz and/or 200 cal/package Skim and 1% milk or soy milk. 50%–100% Real fruit juice <12 oz Sports drinks <100 cal/12 oz and/or 200 cal/package	Diet soda Water 50 cal Max/8 oz for flavored water, sports drinks 100% Real juice with max of 12 oz Unflavored skim or 1% milk or soy milk	Water available at every vending location and priced no higher than other beverages at that location; 50% of beverages in vending machines “diet” or “low-calorie”
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Abbreviation: FDA, Food and Drug Administration.  
<sup>a</sup>Some exceptions.

criteria vary in the amount of fat, saturated fat, and sugar allowed. Some set calorie, sodium, calcium, and sweetener standards. These criteria are generally consistent with the Dietary Guidelines for Americans and the American Heart Association’s (AHA’s) prevention guidelines. Snack vendors increasingly are responding with products that meet “healthier” criteria. But the debate continues as to what percentages of vended products need to be healthy to effect a positive health outcome for employees who routinely obtain meals and snacks from vending. Current practices range from having at least 1 healthy item at every vending location to up to 50% of the vending machine facings or slots consisting of “healthy” options to entirely “healthy” machines. In the absence of recognized nutrient standards, some administrators based their policy decisions on criteria established by groups offering recognition for healthy work sites. For example, in North Carolina, to be recognized as a “fit community,” major employers, which usually include the hospital, must serve healthy options at company events and have them labeled in the cafeteria and vending machines ([www.fittogethernc.org](http://www.fittogethernc.org)).

*Ensure the availability at all shifts of at least 1 “healthy meal” option and water at a reasonable price.*

### Recognition Programs Include Nutrient-Based Criteria

Awards and recognition programs may be used in some settings to persuade management or to convince administrators that employees should have access to healthier food and beverage options. The AHA’s “Start! Fit-Friendly Companies” program requires employers to document increased availability of healthy food options at work. “Healthy” food options defined by this group include fruits and vegetables, whole-grain foods, fat-free or low-fat milk or dairy products, and items that are low in saturated fat and *trans*-fat or have reduced sodium or no added sugar. Healthy beverage options include low-fat or fat-free milk and water. The AHA program requires that the companies have at least 2 of 5 different specified strategies to qualify. Those strategies include (1) nutrition education and/or healthy-eating information for employees, (2) a minimum of 1 healthy food and beverage option at each meal served, (3) a company policy that at least 1 healthy option will be available at company meetings/events, (4) on-site vending

**Table 2. Sample Snack and Vending Criteria**

Winner Circle Program (www.winnercircle.healthymind.com)	12 San Antonio, Texas, Hospitals (www.healthcollaborative.net)	Alliance for a Healthier Generation (www.healthiergeneration.org)	Fit Pick (www.vending.org)	UHS Snack Criteria
Healthy snack Fat <30% Sodium <480 mg Sugar <35% by weight	A "healthiest" snack ≤3 g or less total fat/serving; <30 g of carbohydrate/serving, and fruit in any form	School beverages Elementary school Water ≤8-oz servings of milk and juice Fat-free or low-fat milk and nutritionally equivalent (per USDA) milk alternatives Fat-free or low-fat nutritionally equivalent flavored milk with ≤150 cal/8 oz 100% juice with no added sweeteners, ≤120 cal/8 oz and ≥10% DV for 3 micronutrients Middle school Same as elementary school with the following exceptions: juice and milk that meet the elementary-school criteria may be available in 10-oz servings As a practical matter, if middle-school and high school students have common access to areas where beverages are sold on a common campus or in common buildings, then the school community has the option to adopt the high school standard	Fit Pick products are lower in fat and sugar Labels are available for 2 different categories of nutritional criteria; the most commonly selected criteria for adults is 35-10-35, which means no more than 35% of total calories from fat, 10% of calories from saturated fat, and 35% of total product weight from sugar	Calories <200 Sugar <30% of calories (<15 g/ serving) Total fat <5 g, excluding nuts/seeds Sodium <500 mg Dietary fiber at least 1 g, preferably 2 g
For dairy snacks: a 4-oz serving must have at least 120 mg calcium, a 60-oz serving of at least 150 mg calcium, and 8-oz serving of at least 245 mg calcium	"Healthier" snack: allows up to 5 g of fat/serving	High school Water No or low-calorie beverages		
	The "healthiest" beverages were 1% and nonfat milk of any			

juice (at least 50% fruit or vegetable)

with  $\leq 10$  cal/8 oz (eg, diet sodas, unsweetened or diet teas, low-calorie sports drinks, fitness waters, flavored waters, seltzers)  $\leq 12$ -oz servings of milk, light juice, juice, and sports drinks  
 Fat-free or low-fat milk and nutritionally equivalent (per USDA) milk alternatives  
 Fat-free or low-fat nutritionally equivalent flavored milk with  $\leq 150$  cal/8 oz  
 100% juice with no added sweeteners,  $\leq 120$  cal/8 oz, and  $\geq 10\%$  DV for  $\geq 3$  micronutrients  
 Light juices and sports drinks with  $\leq 66$  cal/8 oz,  $\geq 50\%$  of beverages are water and no or low-calorie options (10 cal/8 oz)

The "healthier" beverages included flavored or vitamin-enriched water, and those that were 12-oz servings with  $< 50$  cal (IATP, 2005); its criteria for beverages included water and flavored water with  $< 50$  cal/8-oz serving OR skim or 1% milk OR at least 50% juice and  $< 12$  oz OR, sport drinks with  $< 100$  cal and  $< 12$ -oz servings AND no added herbal supplement

Abbreviations: DV, daily values; IATP, Institute for Agriculture and Trade Policy; UHS, University Health Systems of Eastern Carolina; USDA, US Department of Agriculture.

with 25% healthy options, and (5) discounts on healthy options to encourage purchase. A higher level of recognition can be earned if the company actually documents an increased purchase in dollars of healthy foods/beverages per employee ([www.aha.org](http://www.aha.org)).

### Other Guiding Principles or Approaches to Healthy Foods in Hospitals

Some advocates for healthy hospital food environments focus on factors other than nutrients and calories. The assumption is made that foods that are simple, seasonal, locally produced, organic, and hormone- or antibiotic-free are healthier and better for the consumers. Advocates may also suggest that, for a hospital to have healthier foods, the beef should be grass fed, fish be sustainably caught, foods be monosodium glutamate- and *trans-fat*-free, use of high-fructose corn syrup be limited, and gluten-free products be available. Three organizations (Institute for Agriculture and Trade Policy [IATP], Physician's Committee for Responsible Medicine, and Health Care Without Harm) have shared stories of hospitals adopting these guidelines. The IATP reports that, even beyond the obvious nutritional, health, and environmental benefits, hospitals that increased access to healthy food gained positive publicity, differentiation from competitors, better employee morale, added patient satisfaction, more visible nutrition education, and improved community relations.<sup>9</sup> The IATP states that the significant purchasing power of hospitals can bring about change by hosting farmer's markets, purchasing locally grown foods, and improving nutritional quality of food in vending machines. The "Healthy Hospital Food Initiative" of the Physician's Committee for Responsible Medicine, an organization that advocates vegan diets, calls for hospital food service to have a daily salad bar (to include beans), serve fresh fruits and vegetables (when possible, from local farmers), offer healthier versions of prepared food products, offer vegetarian meals and soups, keep high-fat add-ons such as cheese or bacon optional, emphasize whole grains over refined grains, experiment with healthy world cuisine options, and offer nutrition information at the point of sale.<sup>10</sup> More recently, Health Care Without Harm ([www.noharm.org](http://www.noharm.org)) asked hospitals to pledge to serve not only food that is nutritious but also foods that are healthy because they are from a food system that is economically viable, environmentally sustainable, and supportive of human dignity and justice.<sup>11</sup> By May 2008, 122 US hospitals have signed a pledge to work toward practices such as adoption of recombinant bovine growth hormone-free dairy and fair-trade coffee, use of organic and/or local fresh produce and cage-free eggs,

minimizing and beneficially reusing food waste as well as educating patients and community about healthy food practices, and changing vending practices. Again, it is unknown to what extent these types of changes will impact the health of employees and the communities they serve. In the absence of outcome data, not all administrators and managers are convinced that efforts to provide healthier food for hospital employees are worth doing. There is almost no evidence, as yet, that these efforts will impact the obesity and chronic disease conditions of employees. There are reports of improved employee morale with access to healthy foods and no loss of food service revenue. Administrators fear negative employee reactions and increased food costs and/or reduced sales without the promise of improved health outcomes. There is the practical matter of availability of "healthy products," whether defined by Food and Drug Administration or by other nutritional, farm management, or social responsibility criteria. There are challenges in preparing and promoting healthy foods that employees enjoy, including standardization of recipes, training of food service staff, and marketing costs. Monitoring vending compliance is difficult, especially on a large medical center campus where the vendor filling the machine may be influenced by ease of stocking, company financial incentives, or employee preferences.

*Ask the question if these efforts to provide healthier food to hospital employees are worth doing.*

### Meeting the Challenge

When hospital administrations and food services choose to work toward a healthy hospital eating environment, they embark on a path not yet fully charted. The NC Prevention Partners (NCPP), funded by the Duke Endowment and in partnership with the NC Hospital Association, is assisting hospitals in promoting healthy environments through tobacco-free campuses and healthy food environment policies (<http://www.healthyhospital.org/whyhealthyfoods2.asp>). The NCPP assisted nearly 95% of North Carolina hospitals in achieving a 100% tobacco-free campus and has expanded its work to help change hospital food cultures. The NCPP core principles for the project include providing access to healthy foods, using the pricing structure as incentives for customers to purchase healthy items, using marketing techniques to promote healthy foods, using benefit design and/or wellness incentives to encourage behavior change, and implementing education campaigns to promote the

**Table 3. Creating a Healthier-Eating Environment at UHS**

2003

Identified obesity, diabetes, and cardiovascular disease rates for employees were higher than for the communities it served despite supporting employee wellness programs since the 1980s, a persuasive argument for changing policies  
 Joined the North Carolina Eat Smart Move More (ESMM) movement ([www.eatsmartmovemorenc.com](http://www.eatsmartmovemorenc.com)), accepting the challenge to find local solutions to obesity problem  
 CEO-endorsed implementation of "Winners Circle Healthy Dining Program" (<http://www.winnerscirclehealthydining.com>) in cafeteria and medical staff dining, which was a first step in helping employees identify healthy choices  
 Reviewed ESMM tools like the "Worksite Eat Smart Move More" tool kit, "Healthy Meeting Guide," "Bring Fresh Produce to Your Setting," and "Snacks and Drinks Guide" ([www.eatsmartmovemorenc.com](http://www.eatsmartmovemorenc.com)) identifying policies and resources that could be used in this environment  
 Encouraged regional hospital presidents to appoint a physical activity and nutrition committee and conduct an assessment of its best practices and opportunities for change (Figure), with some best practices found at each location  
 Recognized, based on a survey showing that only 30% of cafeteria customers were seeking healthy foods, that education, marketing, and incentives would be needed to effect change  
 Culture not ready to abandon employee rewards and recognitions that include meals, snacks, and beverages; high-fat, high-sugar items like sausage biscuits; bar-b-q pork and hush puppies; fried chicken and French fries; green beans seasoned with fat meat; pizza; sugar-sweetened tea or soft drinks; and candy or cakes and cookies

2005

Nutrition Initiative committee formed  
 Implemented "Just 4 U" in hospital cafeteria and medical staff dining room; maintained "Winners Circle" for prepackaged items  
 Reduced fat, increased fruit and vegetables, adjusted portion sizes at hospital-supported day care

2006

Launched "The Baptist Health Care Journey to Excellence" system-wide; includes questionnaire that identifies employees' preferences for rewards and recognitions (eg, type of candy, food celebration)  
 Efforts extended to regional hospitals; state-of-health report cards created (Figure)  
 Motivated by AHA recognition program, adopted healthy meal and vending criteria (Table 1 and 2) possible with current resources and employee preferences; initiated daily healthy choice meal deal in coffee shop; promoted heart-healthy Fridays in cafeteria

2007

Offered daily healthy meal with a free beverage incentive, available for all shifts in cafeteria  
 Designated healthy options at each cafeteria station  
 Provided healthy-eating demonstrations and daily e-mail nutrition tips  
 Posted cafeteria menu and nutrition information on the intranet  
 Maintained price for healthy choices while increasing price on other items  
 Distributed catering menu with healthier choices and guide to healthy dining in local restaurants  
 Offered health options at company functions (eg, picnics, training institutes) and rewards and recognitions  
 Conducted a yearlong weight management campaign that enrolled about 2,600 employees who experienced an 11,000-lb weight loss, with 240 employees lowering BMI category  
 Received AHA Platinum and Community & Fitness Innovation recognition for flagship hospital  
 Recognized by Baptist Health Care Leadership Institute for Best Practices in Rewards and Recognitions  
 Adopted various practices at regional hospitals like adopting Winner's Circle program, eliminating fried foods, labeling of reduced calorie options, and level pricing on healthy items

2008

Regional hospitals all earned AHA Gold recognition  
 Adopted criteria for new heart hospital that both promote heart-healthy ingredients and restrict calories, saturated fat, cholesterol, and sodium  
 Adopted strategic framework for 2009 that includes "create wellness culture that supports employee health improvements"

Abbreviations: AHA, American Heart Association; BMI, body mass index; CEO, chief executive officer; UHS, University Health Systems of Eastern Carolina.

healthy food environment with staff and visitors. Most administrators and food service operators find these principles easy to agree to, but “walking the talk” is not as simple as it may appear. The University Health Systems of Eastern Carolina (UHS), First Health of the Carolinas, and Wake Forest Baptist University Medical Center were named “Centers of Excellence” and are in continuous dialogue along with NCPP to describe/define a healthy food environment and how to reach that goal. Highlights of change at UHS demonstrate the way one hospital system charted its path to a healthier food environment (Table 3, Figure).

### UHS as an Example

The UHS includes a 761-bed tertiary-care and teaching hospital and 6 other regional hospitals that serve 29

counties in rural eastern North Carolina, with 1,207 beds and almost 10,000 employees. The UHS has had a formal employee wellness program since 1992. The system’s hospitals vary greatly in the opportunities provided for healthy eating (Figure). For example, there is no cafeteria at the smallest hospital, only a few vending machines. The flagship hospital has a sprawling campus with several vendors providing food services in many buildings. Some employees are in closer proximity to fast-food outlets than to hospital food venues. A major contract food service company provides foods and beverages in the cafeteria (3,000 daily transactions), medical staff dining room, catering, and the children’s day-care center. That same vendor has a coffee kiosk joint venture with a service organization that is proud of its efforts in raising funds for hospital projects. A service organization also

<p><u>Physical Activity</u></p> <ul style="list-style-type: none"> <li>• 100% have walking trails with brochures available</li> <li>• 100% participate in <i>Walking Works</i> – a physical activity challenge offered twice a year</li> <li>• 100% have access to local fitness centers at a reduced fee.</li> <li>• 4 of 6 offer access to on-campus exercise facilities (2 use PT gyms and 2 have ViQuest Centers)</li> <li>• 100% have access to counseling with exercise specialists and nurse case managers.</li> </ul> <p><u>Nutrition</u></p> <ul style="list-style-type: none"> <li>• 100% have increased healthy food and beverage offerings and nutrition information.</li> <li>• 2 of 6 have adopted UHS healthy criteria for meals, snacks and beverages</li> <li>• 4 of 6 have healthy meal of the day deals</li> <li>• 100% receive a <i>Nutrition Tip</i> weekly, some daily</li> <li>• 100% receive monthly education campaigns designed to educate employees about responsible nutrition choices</li> </ul>	<p><u>Weight Management</u></p> <ul style="list-style-type: none"> <li>• 100% have access to registered dietitians for individual or group nutritional counseling</li> <li>• 100% participate in the <i>Drop A Ton</i> system incentive program for employees to maintain a healthy weight or make progress toward a healthy week: 2007 result – 11,000 pounds lost.</li> <li>• 5 of 6 have access to <i>Weight Watchers at Work</i> program</li> <li>• 75% of UHS employee base has access to advanced level practitioners via the ViQuest Clinic in Greenville</li> </ul> <p><u>Tobacco</u></p> <ul style="list-style-type: none"> <li>• 100% are tobacco free as of Fall 2006</li> <li>• 100% have access to a tobacco cessation program at reduced cost</li> <li>• 75% of UHS employee base has access to advanced level practitioners via the ViQuest Clinic</li> </ul> <p><u>Awards and Recognition</u></p> <ul style="list-style-type: none"> <li>• 100% awarded <i>AHA Start! Fit Friendly Recognition</i> PCMH – <i>Platinum Status, Workplace Innovation and Community Innovation</i> Bertie, Chowan, RCH, OBH and Heritage – <i>Gold Status</i></li> <li>• Pitt County, Edenton and Tarboro each recognized as a <i>Fit Community</i></li> <li>• Health Access recognized as <i>BLI Best Practice for Healthy Reward &amp; Recognition Program</i></li> </ul>
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Figure. University Health Systems of Eastern Carolina best practices report of integrated health promotions strategies.

operates, with a different company, most of the vending on campus, the gift shop and the “candy cart,” and a lobby coffee shop. The wellness center operates a food cart and provides food and drinks served during after-school and summer camp care. Throughout the campus, staff lounges are equipped with refrigerators and microwaves, enabling employees to store and heat food from home or receive takeouts. Pharmaceutical representatives are allowed in some locations to supply foods, beverages, and snacks. The hospital chief executive officer was convinced that change must occur but had many questions, including how much change is needed to result in positive health outcomes for employees and visitors, what is the cost of making change, and will change bring about a positive short- and long-term return on investment or reduced healthcare costs or reduced absenteeism or improved employee morale? As hospitals undertake changes in policy and environments, it is important to document the experiences and develop the evidence base to answer these questions.

*Change—it is important to document and share the experiences.*

## Conclusion

There are calls for healthier foods to be served to employees and visitors of hospitals. There are hospitals responding to the challenge, but there is no consensus describing a “healthy hospital food environment.” No one anticipates that every employee would select a healthy beverage or food 100% of the time, but increasing access to healthy food and beverages may facilitate employees adopting key behaviors that affect their health. It is important for those working toward this goal to share best practices and measure their impacts.

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ARAMARK is the major food and beverage vendor at PCMH.

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## REFERENCES

- Landers SJ. Stepping up to the plate: hospitals move toward healthy eating. *AMNews*. January 29, 2006. [www.ama-assn.org/amaednews/2006/01/02/hlsa0102.htm](http://www.ama-assn.org/amaednews/2006/01/02/hlsa0102.htm). Accessed January 6, 2006.
- American Dietetic Association. Food and nutrition professionals can implement practices to conserve natural resources and support ecological sustainability. *J Am Diet Assoc*. 2007;107:1033–1043.
- Griffin D. *Hospitals. What They Are and How They Work*. 3rd ed. Sudbury, MA: Jones & Bartlett Publishers; 2005.
- Stein K. Contemporary comfort foods: bringing back old favorites. *J Am Diet Assoc*. 2008;414(10):413–414.
- Silverman MR, Gregoire MB, Lafferty LJ, Dowling RA. Current and future practices in hospital foodservice. *J Am Diet Assoc*. 2000;100(1):76–80.
- Institute of Medicine. *Nutrition Standards for Foods in Schools: Leading the Way Toward Healthier Youth*. Committee on Nutrition Standards for Foods in School. Washington, DC: National Academy of Sciences; 2007.
- Keystone Center. 2006. The Keystone forum on away-from-home foods: opportunities for preventing weight gain and obesity. [http://www.keystone.org/spp/documents/Forum\\_Report\\_FINAL\\_5-30-06.pdf](http://www.keystone.org/spp/documents/Forum_Report_FINAL_5-30-06.pdf). Accessed July 5, 2008.
- Saelens BE, Glanz K, Sallis JF, Frank LD. Nutrition environment measures study in restaurants (NEMS-R) development and evaluation. *Am J Prev Med*. 2007;32:273–281.
- Institute for Agriculture and Trade Policy. *Healthy Food, Healthy Hospitals, Healthy Communities*. Minneapolis, MN: IATP; 2005. [www.iatp.org](http://www.iatp.org). Accessed July 5, 2008.
- Physician’s Committee for Responsible Medicine. Healthy Hospital Food Initiative. September 2005. [http://www.pcrm.org/health/reports/hospital\\_food05/questionnaire.html](http://www.pcrm.org/health/reports/hospital_food05/questionnaire.html). Accessed July 3, 2008.
- Harvie J. Menu of Change. Healthy food in health care. A 2008 survey of healthy food in health care pledge hospitals. Arlington VA: Health Care Without Harm; 2008. [www.noharm.org](http://www.noharm.org). Accessed June 1, 2008. Also [www.healthyfoodinhealthcare.org](http://www.healthyfoodinhealthcare.org).

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