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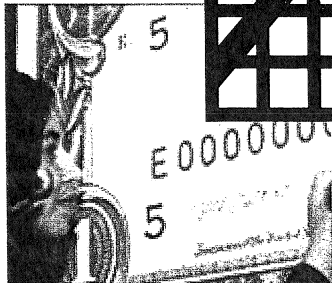
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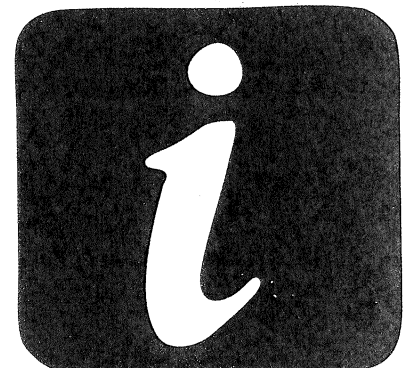
Growth



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## Pitt County Memorial Hospital Plays A Role In The “Eat Smart, Move More North Carolina” Movement

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for the University Health Systems Nutrition Initiative

### Introduction

As a healthcare organization, we focus the majority of our efforts on the health of our patients, just as we should. However, University Health Systems (UHS) takes healthcare a step further by also focusing on the health of our workforce. Long before the Journey to Excellence (J2X) culture transformation began, UHS committed many resources to creating a wellness culture for employees.

As a part of this, a Nutrition Initiative committee appointed by our own UHS Chief Executive Officer began the work of creating a culture and environment that supports good health practices such as healthy eating.

The early successes were chronicled in previous editions of *Perspectives* citing the hospital's significant strides to ensure healthy eating options are available to its employees. This effort is of course a partnership with the workforce – designed to provide the resources and environment to empower and support employees in practicing healthy behaviors. Moreover, to date the evidence shows that as we lead them to water, many employees are choosing to drink it.

In 2007, PCMH received the American Heart Association's Start! Fit-Friendly Companies recognition at the platinum level and was honored for Community and Fitness Innovation. This paper reports the progress made in the last year in the context of the J2X pillars.

### The People Pillar and Food

Pitt County earned the **FIT Community** designation for 2007-2010, one of only 15 communities to earn it. In 2006-2007, 80 North Carolina communities applied for this important recognition. In order to qualify, PCMH as the county's largest public employer had to do demonstrate it was actively creating a culture with policies and programs that supports healthy eating, physical activity and no tobacco use.

The J2X culture requires that PCMH. In the area of employee wellness, PCMH has faced the brutal fact that **74%** of its employees are overweight having a Body Mass Index (BMI) greater than 24.9. The organization addressed that reality by signing on as an “Eat Smart Move More North Carolina's Plan to Prevent Overweight, Obesity and Related Chronic Diseases” partner (Caldwell et al). However, addressing the issues is not simple. At the **FIT Community** award ceremony, Lieutenant Governor Beverly Perdue commented that as a society we have not really found a way to talk about obesity without making some people feel bad.

Throughout history, every culture and tradition has defined unacceptable weight for itself. Not all employees at PCMH who are categorized as overweight believe that they are overweight. However, at some point, excess weight for the entire work force becomes unacceptable and must be addressed because it impacts

employees' health and performance as well as the financial "bottom line" of the organization. The "Drop a Ton" campaigns became one response to assist employees with their weight. Many are participating, but some employees, for a variety of reasons, remain reluctant to change their habits. Some employees have revealed that they feel they are "disrespecting their culture" if they turn their back on the fried foods and fat seasonings that helped their grandparents and parents survive. Research even shows that some people actually eat more as a way to cope with weight stigmatization. Nonetheless, the journey to help our employees achieve a healthy weight continues.

It may be helpful for those who feel today's nutrition initiatives are turning its back on traditions and cultures, to reflect for a moment on the evolution of the Eastern North Carolinian diet.

### **The Food Culture of the Past**

Healthy and nutritious foods are grown in eastern North Carolina but most people who live here today do not have a healthy diet. Ancestors would be surprised to see how much food currently exists.

Today, even the poorest, have more food available and at cheaper costs than ever before. Most of the food consumed is preserved and processed commercially in ways to reduce spoilage and improve taste. Food preparation practices of the past evolved to meet the dietary needs of that time. Salt was used to mask the flavor of spoilage and reduce the taste of bitterness. Sugar and fat added calories needed to meet energy needs of intense physical activity.

As ancestors came from European, African and Native American

nations they had to change their food practices to survive. There were no drive-thru restaurant windows or convenient marts. They produced and processed their own food by drying, smoking, salting and canning it to get by in times of scarcity.

African slaves came to Eastern North Carolina, often through the Caribbean bringing okra, yams, groundnuts (peanuts), and the tradition of spicy stews with them as silent reminders of their homeland. Once here, they learned from the Native American populations to eat corn, fish, game, tomatoes, peppers, squashes and beans. Brunswick stew was originally prepared with squirrel and venison in the Native tradition.

Settlers from England learned to eat these foods, too, blending them with their own hearty foods of wheat and barley breads, pork, beef, milk, butter, fish carrots, parsnips, beets and preserved fruits. Ascendants' bodies were leaner, shorter and needed more calories than we do because of their intense physical activity. To meet their higher calorie needs they extended their food supply by seasoning pots of beans and greens with a piece of pork meat or adding extra sugar and fat to desserts. These foods and preparation techniques still provide the foundations of traditional "Carolina" cooking, habits and flavors enjoyed today. While this food tradition and culture ensured the survival of previous family members in today's world, it is promoting obesity, diabetes, heart disease, high blood pressure and early death.

### **Changing the Food Culture Today**

It is the "survival" traditions of these ancestors that deserve honor, not necessarily their use of fat, sugar and salt. Continuing to eat the foods deriving from ancestral recipes are fine to eat as

long as changes in the amount of fat, sugar and salt added to the recipes, meet energy needs and are eaten in appropriate portions. Just as past ancestors adapted to a new environment, the UHS Nutrition Initiative seeks to help employees adapt a healthier eating pattern without losing the taste of "Carolina".

The team uses science-based information to define healthy foods, beverages and meals. In 2007, UHS dietitians created the "Drop-A-Ton meal plan" based on the "Dietary Approaches to Stop Hypertension" Eating Plan (DASH) and using foods available in the hospital eateries. The meal plan found on the ViQuest web site ([ViQuestwellness.com](http://ViQuestwellness.com)) has been distributed widely. Data supports DASH (AHA) has been shown to help individuals both prevent and treat excess weight, high blood cholesterol, and high blood pressure. It is a plan that can be followed by the entire family and is recognized in the Dietary Guidelines for Americans (USDA, HHS).

The team not only wants employees to learn how to eat healthy but wants to create opportunities for them to practice good eating behaviors. ARAMARK, the company managing the cafeteria, continues to expand the number of Just 4 U™ designated food choices (menu items that meet the "Dining Style" criteria). When Just 4 U™ was introduced, the menu had 660 icons for a 4-week cycle; this has increased to 720 icons. The Just 4 U™ recipe database has grown from 1000 recipes to 2400.

ARAMARK has received rave reviews for their use of healthy cooking displays to communicate the concept of a healthy meal. They have introduced healthier versions of some favorite foods. For example, ARAMARK introduced a vegetarian whole-wheat

crust pizza with 40 servings being sold every day, Monday through Friday. Now, they grill chicken and since March 2007, more than 80 grilled chicken sandwiches are purchased daily. This item features a side salad instead of the traditional French fry side option. In response to employee requests that healthier soups be offered daily rather than a few times a week, about 185 servings of non-meat, broth soup are sold each day.

ARAMARK communicates these and other opportunities to employees through their website, launched in 2007, (<http://www.aramarkcafe.com>) that lists the menu for the day, descriptions of healthy meal options and ways for employees to learn their own dining style.

Other activities being offered through the in-house ViQuest program, ViQuest Rewards help employees achieve and maintain a healthy weight. ViQuest provides incentives through the following Rewards' sponsors:

- Free nutrition counseling with a registered dietitian,
- Weight management classes,
- Promotes health behavior messages through an article in UHS People,
- Offers weekly health nuggets in the UHS weekly briefing,
- Sends daily email nutrition tips,
- Visits to employees in their own departments by the wellness wagon, and
- Distributes posters and flyers throughout the hospital.

Monthly messages have included: "Practicing Portion Control", "Cues for Emotional Eating", "Boosting Your Metabolism", and "Increasing Fruit and Vegetable Consumption". Additionally, Wellness Challenges are offered quarterly. The 2007

“March Madness Fruit and Vegetable Challenge” was popular with 190 employees who recorded their fruit and vegetable consumption for three weeks and met the goal of eating a minimum of five servings per day.

**The Service Pillar Linking Employees and Food**

Currently there are no national standards defining a healthy hospital food environment. It is not as simple to define healthy eating, as it was to define “tobacco free”. There is one hospital in the northeast that went “junk food free” but that does not seem appropriate to the PCMH setting.

North Carolina Prevention Partners (NCP), a not for profit group active in the tobacco free hospital movement, now with support from the Duke Endowment hopes to help hospitals throughout North Carolina provide enjoyable, health promoting foods and beverages to its employees,

patients and visitors. NCP named PCMH a “Center of Excellence” because of changes it has already made and its willingness to share its journey with other hospitals.

Between 2006 and 2007, the team committed to consistently making healthy foods available to all employees regardless of shift or location has achieved this. The cafeteria alone has more than 3,200 transactions a day. While the Nutrition Initiative does not expect that every employee would select a “healthy” food or beverage 100% of the time, the team wants them to have the opportunity to do so and be rewarded for making healthy choices. All foods and beverages can fit into a health promoting diet and not every food choice needs to be low fat, diet, and unsweetened or high fiber.

In 2006, the team defined healthy meals, beverages and snacks for UHS. Refer to the following table (Table 1).

Table 1. Healthy Choice Criteria for University Health Systems

<b>MEAL</b>	
It is recommended that eateries provide at least one healthy meal choice at every dining shift.	
Meals designated as healthy should meet the following criteria:	
Calories	less than 600 per meal
Total Fat	less than 35% of calories
Saturated Fat	less than 10% of calories
Tran fats	zero
<b>SNACKS</b>	
Every snack machine and the gift shop (where applicable) should have at least one (more would be preferable) snack item that meets the criteria that follows. That snack should be in the vending machine in a facing that is at eye level. The snack should not be priced higher than other snacks in the machine.	
Items that are meal replacements (e.g. sandwiches, meal replacement bars, shakes, and yogurt) are not included in this definition.	

The vendor should supply a way of noting the snacks that are healthy or allow the UHS Nutrition Committee to supply signage (e.g. icon) to note the healthier snack's facing (e.g. symbol next to the price and code for the item on the inside of the machine)

**A healthier snack is defined as PER PACKAGE**

- Calories less than 200
- Sugar less than 30% of calories. That translates into a maximum of 15 grams of sugar as listed on the Nutrition Facts label
- Total Fat less than 5 grams (as listed on the Nutrition Facts Label), excluding products that have nuts or seeds as an ingredient
- Sodium less than 500 mg (as listed on the Nutrition Facts Label)
- Dietary Fiber recommended having at least 1 gram, preferably 2 grams

**BEVERAGES**

Water should be available at every vending location and should not be priced higher than any of the other beverages vended at that place

Considering sugar, sweetened beverages are a significant contributor to excess calories consumed, 50% of the beverages in a machine be "diet" or "reduced calorie. Recommend that both water and "diet" beverages be priced at a lower price than the full calorie beverages.

We recommend that other beverages meet the Winner's Circle Dining criteria

Water and flavored water have less than 50 calories per 8 ounce serving

Skim or 1% milk be available

Available juices be at least 50% juice (not juice drinks) with the exception of cranberry drinks

Sports drinks be less than 100 calories per 12 ounce serving

Additionally flavored coffees should have no more than 100 calories per 12 ounce serving and have low or no fat additives available.

These criteria, based on recommendations from health authorities, are not as restrictive of fat and sodium as recommended by many health organizations and agencies, including Winner's Circle and North Carolina Department of Public Instruction (public schools).

Rather they are tailored for the UHS environment and define meals available in the cafeteria every weekday and during all shifts.

Diners on all shifts selecting this option receive as a reward a free diet fountain beverage or low fat milk. When introduced about 160 individuals each month selected that option. The volume has grown to more than 490 per month. We know that more people actually select most of the components of a

healthy meal, but miss getting "credit" because they choose a different side dish or a larger beverage.

The coffee shop, operated by FoodMasters, Inc., too, has started promoting a daily "Healthy Meal Deal" that meets the UHS Healthy Choice criteria. Healthy snacks are available in all vending locations. The team intends to communicate, communicate, and communicate this nutrition information so employees can make health-promoting choices.

In addition to the ViQuest and ARAMARK websites, postings occur on the PCMH Intranet, ViQuest dietitian, Jenny Biggs, prepares and emails daily nutrition tips designed to help employees learn about opportunities to eat healthy. These reach employees

who might not have the time to access nutrition consultation services. Many employees look forward to daily hints and report that they are helpful. An audit of one month in 2007, revealed more than 20% of the 8,000 "tip" recipients opened the "tip". The "tip" often stimulates follow up with the dietitian. Other communicated successes include the 2007 "Drop A Ton" campaign where names of the teams of leading losers and their Cap-Tons are regularly published in the UHS PEOPLE newsletter. In 2007, 2,164 UHS employees participated in the campaign. **More than 11,000 pounds were lost by 1,139 employees.** Moreover, most impressively, 240 employees lowered their BMI category, contributing to the reduction of their risks for heart disease, high blood pressure, diabetes, cancers and other chronic diseases. *The UHS goal for 2008 is to drop Seven Tons.*

Implementing the J2X culture within the Nutrition Initiative is not without its challenges. Baptist Health Care, the basis of J2X at PCMH, clearly states rewards are critical to success. The Baptist materials suggest many food rewards, such as ice cream or treats for meeting attendance; rewards of favorite candy bars, pizzas with favorite toppings, soft drinks and other snack foods. In part because of obesity rates among employees, a goal is to find non-food rewards that employees will enjoy. PCMH offers fresh fruit or a lower calorie/fat alternative for many hospital sponsored reward events. Suggestions are welcome.

### **The People Pillar and Physical Activity**

The *FIT Community* application acknowledged that PCMH along with other community partners is involved in supporting physical activity. It specifically noted the creation and

promotion of walking trails available as a brochure, as a CD and on the web (<http://www.co.pitt.nc.us/depts/planning/cdwalk/pages/pcmh.pdf>). This ensured that not only employees but people receiving services, across the life span and at all ability levels, have opportunities for activities using trails and parks. Throughout the hospital campus, walking trails have been measured and are printed in a brochure available throughout the hospital and at the ViQuest Rewards office.

Physical activity is also promoted through articles in UHS People, wellness wagon, posters and flyers. Additionally, twice a year the "Walking Works" eight-week pedometer challenge is offered. More than 400 employees utilize pedometers to track their steps with the goal of reaching 10,000 steps per day.

Beyond the promotions within the hospital, the ViQuest Wellness Center offers employees, at a discount, a variety of services including a state of the art fitness floor, group exercise classes on land and in the water, as well as personal training.

These are only some of the activities available specifically related to fitness. The Nutrition Initiative recognizes that no single program works for everyone and strives to provide programs desired by employees. One example is that ViQuest continues to respond to employee requests for the commercial "Weight Watchers at Work" program. In addition, PCMH introduced a 2-hour wellness benefit for employees in 2007.

### **Finance and Growth Pillars**

While creating a culture that encourages employees to make health promoting food and activity choices is the "right thing to do", it also impacts PCMH finance and growth. At the *FIT Community* award ceremony, Bob



Greczyn, president and CEO of Blue Cross Blue Shield of North Carolina stated that his company spent 70% of its claims budget on bills related to chronic diseases associated with obesity, poor diet, sedentary lifestyle and tobacco use. It might be assumed that PCMH spends a similar proportion of its health benefits fund in the same way.

Table 2 provides a snapshot describing the incidence of Metabolic Syndrome among UHS employees. Metabolic syndrome is a clustering of health risks that lead to cardiovascular disease and/or Type 2 diabetes. Healthy eating and physical activity are the best ways to prevent and to treat this condition. Encouraging fitness and

healthy weight then could save PCMH and its employees' significant health care costs and improve the bottom line.

The team does not know if the intensity of these interventions to improve opportunities for physical activity and healthy eating are sufficient to help employees achieve a healthy weight and prevent obesity related chronic diseases.

The Nutrition Initiative will continue to work to create a hospital, a community and a North Carolina where people view eating smart and being physically active as a normal part of everyday living.

Table 2. How Do the Employees of UHS Stack Up?

**Chart based on UHS employees who received their Wellness Assessment between July 1, 2005 and July 31, 2006- Sample size of 4004.** (Originally published in "UHS PEOPLE", September 2006.)

	# Of employees	% Of employees
Waist circumference $\geq$ to 35	1935	48%
Triglyceride $\geq$ to 150	2441	61%
HDL $\leq$ 40	1242	31%
BP $\geq$ 130 systolic OR	2018	50%
BP $\geq$ 85 diastolic	1025	26%
FASTING Glucose $\geq$ 100	228	6%
RANDOM Glucose $\geq$ 100	1540	38%

**Projection with FASTING Glucose**

Metabolic Syndrome (3 or more factors)	870	22%
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## **“I Should Consult Physical Therapy For What?!”**

Melissa Taylor PT MPT CLT and Stephanie Slayton PT DPT CWS

### **Introduction**

Have you ever had a patient with swelling in their legs of unknown origin? The swelling may not decrease with usual treatment and the legs continue to get larger. The patient may have had several medical opinions and yet no one has been able to give them a cause. Many treatments have been attempted including diuretics that seem to increase their urine output but the swelling continues and now the legs have become hard and fibrotic. Other symptoms include swelling and pressure on their feet from shoes, causing open wounds that continue to get deeper. Again, many treatments have been attempted but the wounds seem to get worse and the swelling continues to increase.

Why should you consult physical therapy for a patient such as the one noted? Physical therapy involves much more than patient mobility. Physical therapists are trained to address impairments related to skin integrity, vascular issues, lymphatic insufficiencies, and pressure redistribution. Specialty certifications are offered for health care professionals for training in wound care, lymphedema, and wheelchair seating system assessments.

The focus of forthcoming information discusses lymphedema, the resulting complications and wound care.

### **Lymphedema**

#### *What is Lymphedema?*

Lymphedema is a condition that exhibits excessive swelling and non-healing wounds. Edema has to be reduced before healing can occur. Edema affects wound healing because of an increased diffusion distance and the patient's local immune response becomes

compromised. With the increased diffusion, distance the nutritional supply to cells suffers causing frequent infections and decreases the ability of the body to heal itself.

#### *How is it caused and where on the body does it present?*

It is the result of an abnormal accumulation of a protein rich fluid in the interstitial spaces that causes edema. Lymphedema is a chronic progressive disease that once present will not disappear and will require life long management. Lymphedema occurs most often in the extremities but can also occur in the face, trunk, abdomen, and genital areas.

#### *Who gets Lymphedema?*

Lymphedema can be considered primary or secondary. Primary lymphedema is caused by a congenital malformation of the lymphatic system and may be present at birth or develop later in life (i.e. puberty, pregnancy). Secondary lymphedema which is more common than primary lymphedema, is often the result of surgery, infection, radiation, trauma, malignancy or self-induced. An example of secondary lymphedema is a patient whose upper extremity is edematous following a mastectomy.

#### *What are the consequences?*

Lymphedema is a very common and serious condition and can have serious pathological and clinical consequences if left untreated.

There is no cure for lymphedema and the current treatment is complete decongestive therapy. This includes skin care, manual lymphatic drainage, compression and exercises. Skin care is very important due to the increased risk for infection. Skin care includes cleansing of the involved extremity with mild soap,