

SODIUM REDUCTION AT
ESKENAZI
HEALTH
A COLLABORATIVE JOURNEY



A RESOURCE FOR HOSPITALS AND OTHER WORKSITES

SODIUM REDUCTION AT ESKENAZI HEALTH

The U.S. Centers for Disease Control and Prevention (CDC) awarded Health and Hospital Corporation of Marion County, doing business as Marion County Public Health Department (MCPHD), a Sodium Reduction in Communities Program

11	2	17	2
Na	8	Cl	8
Sodium	1	Chlorine	7
22.990		35.453	

(SRCP) Cooperative Agreement to partner with Eskenazi Health Food and Nutrition Services to make changes to food served in the institution to reduce sodium and ensure closer alignment with the USDA Dietary Guidelines for Americans. The CDC



and the 2015-2020 Dietary Guidelines for Americans¹ recommend consuming less than 2,300 milligrams (mg) of sodium per day, but the typical American consumes more than 3,400 mg sodium daily². Excess sodium can increase blood pressure and risks for heart disease and stroke.

More than 75% of the sodium in Americans' diets comes from processed and restaurant foods³. Not the salt added at the table. The primary purpose of the project at Eskenazi Health (EH) was to reduce the amount of sodium consumed by staff and visitors by increasing the availability and accessibility of lower sodium items.

The purpose of this document is to share the strategies used at EH and the changes made in recipes, menus, and foods purchased resulting in a 37% sodium reduction in retail sites and vending between January 2014 and July 2016. Producing those sodium reduction results involved coordinating and integrating the needs, viewpoints, and concerns of multiple departments and individuals.

PROGRAM GOALS AND STRATEGIES

Program Goals:

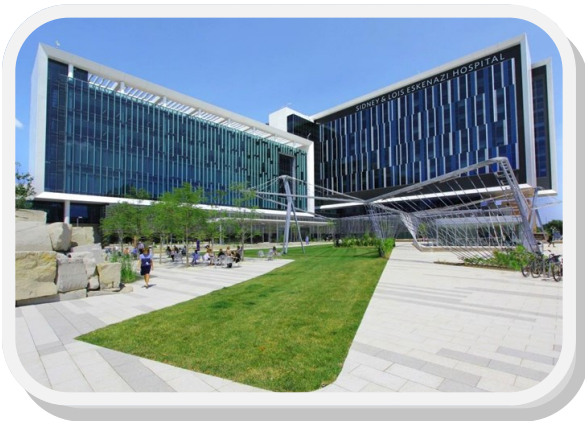
- Increase availability and accessibility of lower sodium food products
- Increase purchase and/or selection of lower sodium food products
- Reduce consumer sodium intake



Strategies:

- Develop and implement food service guidelines and nutrition standards
- Modify menus and recipes
- Consult with food vendors and manufacturers to identify and increase availability of lower sodium ingredients products
- Institute consumer messaging encouraging selection of lower sodium foods
- Offer food sampling and recipes with nutrition information

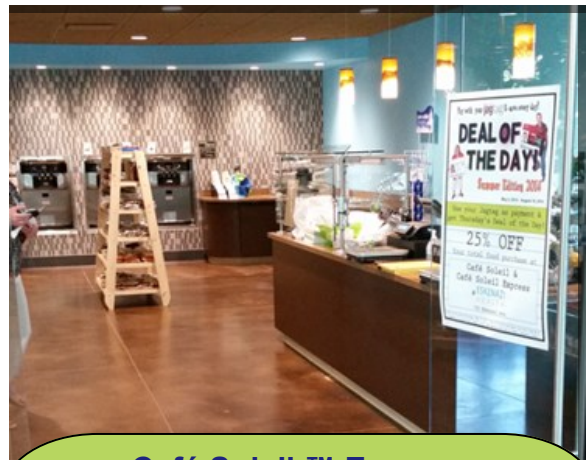
THE PROJECT INVOLVED FOUR SEPARATE SITES ...



Eskenazi Health includes the Sidney & Lois Eskenazi Hospital, an outpatient care center and administrative offices on the downtown Indianapolis campus (opened in December of 2013), and nine community health centers located throughout the county.



**The Ingram Micro
Mobility Marketplace
(cafeteria)**



**Café Soleil™ Express
(grab and go)**



**Café Soleil™
(restaurant)**



**Café Soleil™ Express
(satellite)**

...AND MULTIPLE VENDING LOCATIONS



At Eskenazi Health, the SRCP impacted four self-operated retail settings and vending; serving approximately 5,000 employees and 165,000 visitors annually. Vending is available within the hospital and at community health centers located throughout the Eskenazi Health system.

BE ON THE LOOK OUT — HELPFUL GRAPHICS

Graphics have been added for emphasis to better communicate important elements of vision, intent, and influence.

Strategies used will be identified as ...



Discoveries made after strategies were implemented will be indicated as...



Actions taken to avoid, anticipate and allay anxieties about the impacts of the program's changes, will be highlighted as...



*The 'FEAR-Busters' stood for:
Frequently Encountered Anxiety Reactions, or FEARs.

FIRST STEPS

The EH project team was created, and included a Culinary Nutrition Specialist, who is a registered dietitian nutritionist (RDN), to spearhead the Sodium Reduction efforts within the EH Food and Nutrition Services (FNS). Then an advisory team was developed to provide guidance in project planning, development, and evaluation. The advisory team included MCPHD staff, evaluation and program staff, and a RDN who served as a community liaison.



The project team aligned SRCP efforts with EH Wellness Team initiatives and the EH Dietitian Coalition (the Culinary Nutrition Specialist and EH RDNs representing administration, clinical, and outpatient services). The project team participated in EH Wellness initiatives and committees, avoiding duplication of effort, enhancing the collaboration, and increasing sustainability.

The project team identified factors that influenced FNS nutrition policies and practices. Understanding these factors helped assess, manage, and integrate changes to nutrition policy, procedures, and programming. Support from senior leadership was crucial for long-term success. FNS and the project team met regularly with senior leadership administrators throughout the project period.

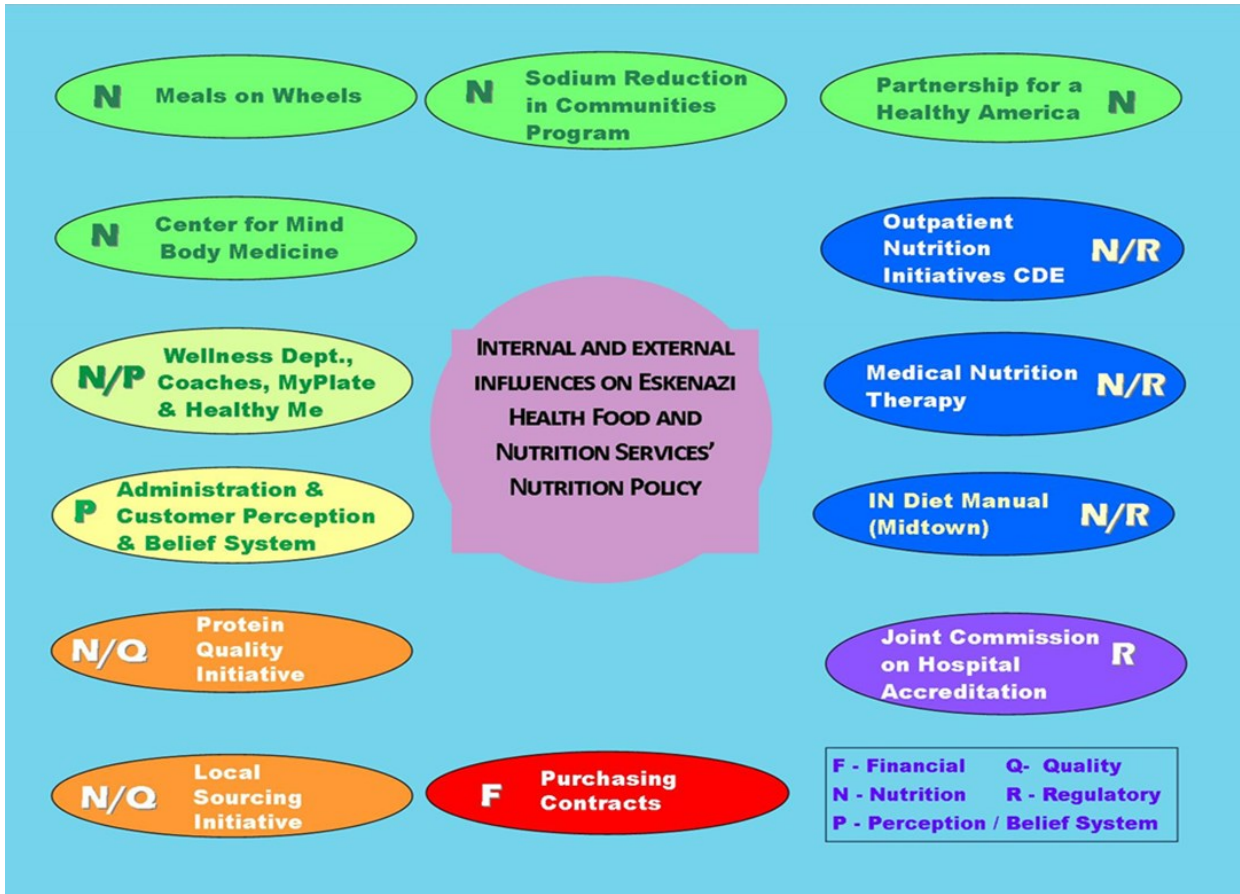
INFLUENCES ON NUTRITION POLICY AND PROCEDURES

The EH Dietitian Coalition concluded there were five major influences on nutrition policies and procedures: 1) financial considerations, 2) hospital nutrition programs with differing criteria, 3) quality initiatives, 4) regulatory requirements, and 5) the perception or belief systems of FNS, hospital administration, and clinical and non-clinical staff. The greatest impact was from perception and beliefs.



Understanding these influences assisted FNS in determining if there were contraindications or if the desired outcome was being met by another initiative when there were new requests.

INFLUENCES ON NUTRITION POLICY AND PROCEDURES



FNS NUTRITION GUIDELINES

The EH Dietitian Coalition established FNS Nutrition Guidelines for the EH retail operations and vending. These guidelines were influenced by the Health and Sustainability Guidelines for Federal Concessions and Vending Operations from the CDC, U.S. Department of Health and Human Services, and General Services Administration.



The EH Dietitian Coalition’s goal was to incorporate multiple, but not exclusive, food selections that met the nutrition standards and to increase the availability of overall healthier foods, including lower sodium foods. The FNS purchasing policy and nutrition standards were developed to enable an efficient nutrient review of products prior to purchase.

FNS NUTRITION STANDARDS

The EH Dietitian Coalition established the FNS Nutrition Standards for purchasing food and beverage selections in retail sites and vending.

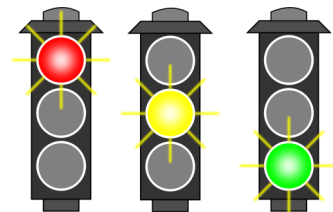
FNS NUTRITION STANDARDS				
Calories	Saturated Fat: ≤10% calories	Trans Fat: 0 grams	Sodium:	Sugar: ≤35% calories
Vending: ≤200 calories	✓	✓	≤230 mg	✓
Sides:	✓	✓	≤230 mg	✓
Individual Food Items:	✓	✓	≤480 mg	✓
CHOOSE HEALTH Meals: ≤ 600 calories	✓	✓	≤800 mg	✓

CHOOSE HEALTH INITIATIVE

Choose Health was the name given to the initiative aimed at assisting EH customers to identify healthier food and beverage choices provided in the retail sites and vending. Choose Health became the umbrella initiative for consumer messaging regarding nutritional improvements, including sodium reduction. Choose Health was well received because it identified healthier choices quickly and easily, provided positive consumer messaging, and promoted healthier choices with no punitive or compulsory impressions.



Hallmarks of the Choose Health initiative included nutrition information and a traffic signal color coding system used in retail sites and vending. Nutrition criteria were developed for each color, **red**, **yellow**, and **green**. (RYG). The design scheme allowed EH customers to easily and quickly identify healthier choices.

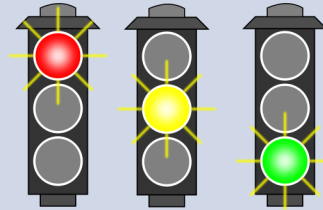


TRAFFIC SIGNAL NUTRITION CLASSIFICATION: GREEN, YELLOW, AND RED FOODS



Rich in nutrients and meets the following:

- ≤ 200 calories
- ≤ 35% calories from fat
- ≤ 10% calories from saturated fat
- 0 trans fat
- ≤ 35% calories from sugar
- ≤ 230 mg sodium



- ≥ 35% healthier fats
- ≤ 400 mg sodium



Exceeds the green and yellow nutrition criteria

CHOOSE HEALTH - SALAD AND YOGURT BAR



The cafeteria salad bar was the first to implement the traffic signal system. The salad bar hours were expanded to be available at breakfast and a yogurt and oatmeal bar were added. RYG pans were purchased for the salad and yogurt bar to further support the Choose Health initiative. Nutrition information was displayed on color-coded tags to identify specific nutrition information for the pan contents. The color-coded tags obstructed access to pans behind the front row, became entangled in sleeves or jewelry, and frequently broke off. The problem was corrected by use of color coded labels placed on the sneeze guard.

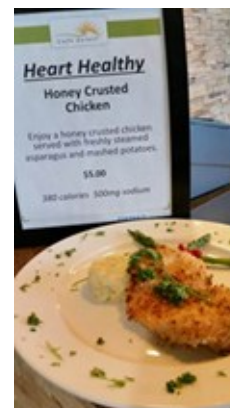


The digital signage was not available before the RYG pans were installed. Consumers did not make the connection between the color of the pan and the nutrition classification until the digital signage and other consumer messaging were available, including website information and brochures.

Assessment results following implementation of the traffic signal system indicated that more green foods, and fewer yellow and red foods were purchased.

CHOOSE HEALTH MEALS

A set of “heart healthy menus,” developed for the restaurant, were revised and expanded in number to meet the new nutrition standards. After a successful roll-out, they were offered at the cafeteria and the satellite operation.



CHOOSE HEALTH ANYTIME MEALS

Use of the Choose Health meals was also expanded for the daily meal delivery to over 60 Meals on Wheels clients. The Meals on Wheels partnership allowed clients to choose from 12 meals, based on their preferences. FNS purchased necessary equipment to freeze the Choose Health Anytime meals in conventional oven or microwave safe containers. The Choose Health Anytime meals provided a new option. Convenient, healthy meals were available for EH customers to purchase in the cafeteria Convenience Store and prepare in their office or home.



CHOOSE HEALTH INITIATIVE AND VENDING

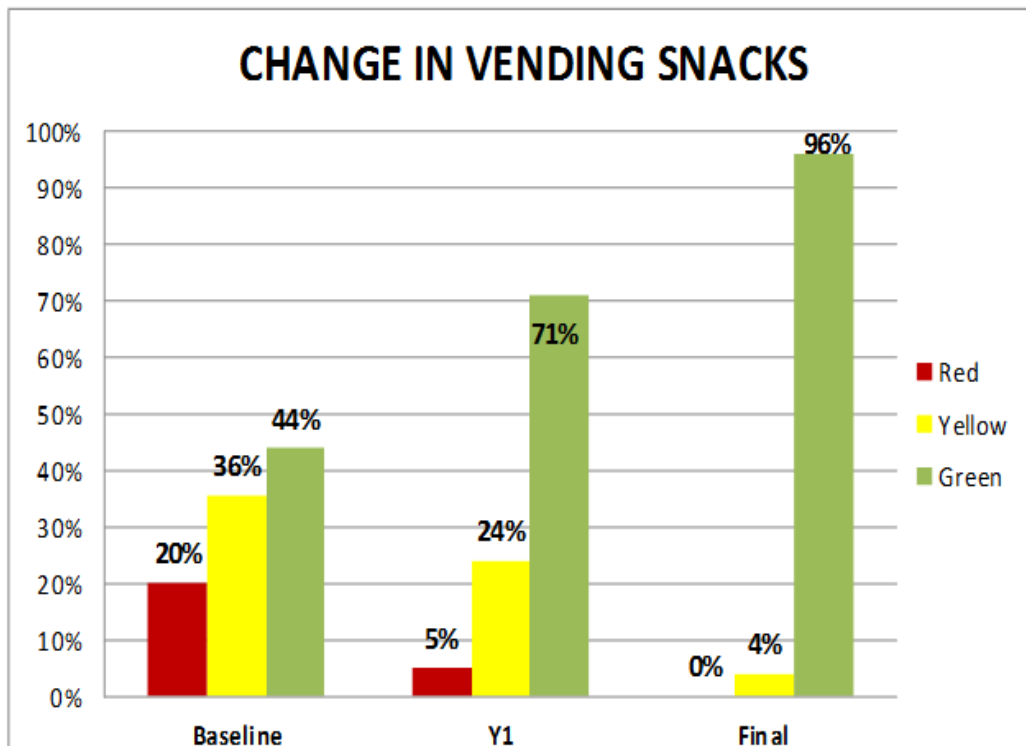
The Choose Health initiative was also utilized in vending machines. The self-operated vending program is managed by FNS and includes 66 vending machines (22 snack and 44 beverage). Two full-time employees purchase and stock the machines located on the EH campus and at multiple community health center locations.

The traffic signal system was implemented by purchasing RYG spiral sleeves to identify snack choices by the nutritional content. The Choose Health consumer message was attached to each snack machine to provide positive consumer messages.



Planograms for snack machines were developed for consistent stocking of approved items. Snack choices were constantly reviewed with vendors to increase the number of “green” selections available.

The creation of, and adherence to, the FNS purchasing policy that included the vending operation was critical to increasing the availability of healthier food items. Throughout the process FNS was committed to providing healthier vending choices. Reducing the number of red snack choices purchased to eliminate snacks with > 230 mg sodium per serving resulted in a 31% sodium reduction in vending products from January 2014 to July 2016.





STRATEGIES FOR SODIUM REDUCTION: PRODUCT, PRICING, PLACEMENT, AND PROMOTION

PRODUCT

An initial review of food purchased was limited to the cafeteria. FNS collaborated with all vendors to identify products to replace those with high sodium content that would impact numerous pre-existing and new recipes. The goal was to substitute alternate ingredients with a healthier nutrition profile that would significantly change the overall nutrition profile of the recipes, while not significantly altering the flavor profile or food costs.



Substitution of products without fanfare became known as the ‘stealth strategy.’ Informing consumers that a choice was lower in sodium may lead to a fear that the food may not be as tasty. As long as the flavor of the food was acceptable, consumers were not concerned that the ingredients met the nutrition guidelines. As a new ingredient or recipe was deemed successful in one retail site, it was often implemented for use at other retail sites.

RECIPE REVIEW

4 R's TO REVIEW RECIPES	
<p>REVIEW</p> <ul style="list-style-type: none"> • Cooking methods • Procedures (“salt to taste”) • Serving size • AP:EP (As Purchased vs. Edible Portion) • Nutrition analysis 	<p>REPLACE</p> <ul style="list-style-type: none"> • Salt, seasoned salt with salt-free versions • Broth, canned vegetables with low sodium varieties • Recipe with healthier option • Enriched grains with whole-grain • Processed vegetables or proteins with lower sodium
<p>REDUCE</p> <ul style="list-style-type: none"> • Serving size • High sodium ingredients (protein, cheese, sauces) 	<p>REMOVE</p> <ul style="list-style-type: none"> • High sodium garnishes (pickles and other condiments) • High sodium sauces

RECIPE REVIEW RESULTS

An initial concern from the FNS food production staff was that their recipes were going to be eliminated and that all new recipes would be provided to them. An exercise called the “Recipe Review Process” was done to reduce this fear and increase staff engagement. This involved the four steps: Review, Replace, Reduce, and Remove. During the initial use, the staff discovered several areas where recipes could be improved, and their willingness to participate in the process increased.



Changes initiated through the Recipe Review Process included:

- Deleting salt added to cooking water for pasta or other products.
- Deleting “salt to taste” from standard recipes.
- Adding or clarifying serving size to be consistent with the portion actually served.
- Weighing chips and popcorn to determine appropriate serving size.
- Adding new ingredients to replace those no longer purchased.
- Some protein foods purchased were reduced from 6 oz. to 5 oz.
- Pickles were eliminated as the standard garnish, but remained available by request.
- New recipes were created as needed.
- An audit was conducted and corrections made to products in the software ingredient database. For example, ingredients were described “as purchased” (AP) instead of “edible portion” (EP). The most common item chosen as AP instead of EP was celery, and the correction significantly altered the nutritional profile of recipes, especially the sodium and fiber.



After a period of time, the review process was less formal and became ingrained as a normal thought process. FEAR was busted!



STEALTH PRODUCT REPLACEMENT THE CHICKEN BREAST SUCCESS STORY

One of the best examples of successful stealth strategy outcomes was locating a chicken breast with less sodium. Chicken breasts were used in over 25 recipes and over 6,100 pounds of chicken breast were purchased in a three-month period. Consultation with the vendor determined there was a chicken breast, not frozen in a saline solution, that would meet the nutrition standards, and decrease the amount of sodium by 78%, and 30% less expensive.



The sales of foods with the new chicken increased 54%, and the use of the chicken was expanded to all outlets. An additional 25 products were reviewed and purchased using the stealth strategy to reduce sodium.

IMPACT ON SODIUM REDUCTION WITH SUBSTITUTION OF A 4 OZ. LOWER SODIUM CHICKEN BREAST IN 3 MONTHS						
SODIUM (mg)		PRICE/ 4 oz.		TRANSACTIONS (# / %)		SODIUM (mg)
Orig.	New	Orig.	New	Initial	Follow Up	Saved
180	↓ 40 78%	\$1.08	↓ \$0.76 30%	7,582 (3.35%)	16,445 (6.51%)	706,960

'GRAB AND GO' PRODUCTS

Grab and go items were reviewed and smaller sizes were purchased that had a more favorable nutrition profile. Food purchasing practices and a change to a different beverage company for the four retail outlets provided the opportunity to offer name brand 'grab and go' items, but in smaller sizes. Consumer satisfaction remained high while the nutrition standards were met.



Five shaker salad recipes were created that featured made-from-scratch salad dressings and smaller portion sizes. The shaker salads rotate weekly and are featured in the cafeteria grab and go case.



THE FRESH HARVEST STAND

Increasing the purchase of naturally low sodium fresh fruits and vegetables was another goal. EH is located in a 'food desert' and many staff and visitors have difficulty obtaining fresh fruits and vegetables. Initially, a small area in the cafeteria, called the Fresh Harvest Stand, provided fresh fruits and vegetables for purchase on payday Fridays.



The popularity of the Fresh Harvest Stand resulted in an expansion that increased the number of items offered and the allotted retail space. Days of operation also increased from every other Friday to every day.



Dietetic interns provided taste tests and recipes to encourage the purchase of new items. Sales and number of transactions in the Fresh Harvest Stand increased.



The strategy provided FNS an alternate revenue stream from the sale of fresh fruits and vegetables and supporting the Wellness Initiatives.

The strategy was easily maintained by FNS with minimal increase in labor or equipment costs.



INCREASED WATER CONSUMPTION

Another Choose Health goal was to increase consumption of water and reduce sales of beverages with added sugar or other sweeteners.

To increase opportunities to choose water, free water stations were placed throughout the campus, and the slots for water in vending machines were increased.



PRICING

Multiple adjustments in prices charged for food and beverages at EH were utilized as a strategy to support the Choose Health initiative.

Meal choices with and without protein were offered. Vegetarian choices were added at a reduced price. An option to add a protein source was available with an upcharge. This allowed reductions in price while also offering an incentive to purchase lower sodium choices.

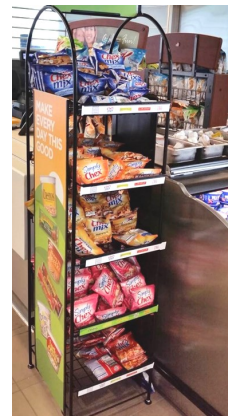
At a reduced price, half-portions of sandwiches, salads, and meatless choices were added to the restaurant menu with a fruit cup as the standard side item. Lower sugar and lower sodium, ready-to-serve cereal prices were lowered. Oatmeal was added to the yogurt bar at a price lower than the ready-to-serve cereals.



PLACEMENT

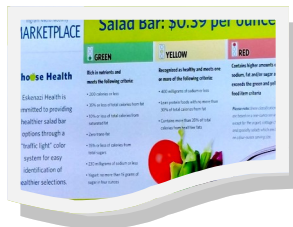
Placement strategies were employed in several ways:

- Planograms were used to determine the placement of pans on salad and yogurt bars, the deli bar, and for the snacks in vending machines.
- All planograms were revised to give more favorable placement to food choices that met the FNS nutrition standards.
- Green grab and go items were placed at eye level.
- Fresh fruits and whole-grain granola bars were moved to the cash register stations to encourage healthier impulse purchases.
- Low-fat yogurt, individual servings of cheese sticks, hummus, and yogurt were moved to waist level or above, in refrigerated cases.
- The number of chips and snacks displays was decreased.



PROMOTION

To draw consumer attention to the Choose Health messages, signage, shelf tags, banners, and posters were added. Signage encouraging unhealthy eating or overeating were removed.



SAMPLING

On several occasions, in several EH locations, free samples were provided to build customer awareness of new products. Before and after making recipe modifications to selected items, staff and visitors were surveyed to gauge their acceptance of the items.



STAFF TRAINING

Keeping the principles and practices of a sustained initiative requires the sharing of those principles and practices with individuals who join the staff after the initiative's launch. The project team, EH FNS and MCPHD, collaborated on staff training in a number of media, including producing a video for orientation and staff in-services.

How to Modify a Recipe to Improve the Flavor and Nutritional Content:

video and resource guide link: <http://marionhealth.org/programs/population-health/chronic-disease/sodium-reduction-in-communities-program/>



Who is ...



The Health and Hospital Corporation of Marion County (HHC) is a municipal corporation and political subdivision of the state of Indiana, created to administer the Division of Public Health and the Division of Public Hospitals.

HHC operates Eskenazi Health, the Marion County Public Health Department (MCPHD), Indianapolis Emergency Medical Services (IEMS), the Long Term Care Division, and a headquarters division that provides corporate-wide fiscal and legal administrative support. Through these service divisions, HHC provides a full range of preventative and curative health services to the residents of Marion County.



MCPHD provides a variety of public health services related to population and environmental health through three divisions: The Bureau of Environmental Health (BEH), The Bureau of Population Health (BPH), and The Public Administration Division. MCPHD operates from various clinics and district health offices located throughout Marion county.



For 157 years, Eskenazi Health has provided high-quality, cost-effective, patient-centered health care to the residents of Marion County and Central Indiana. Accredited by The Joint Commission, Eskenazi Health's nationally recognized programs include a Level I trauma center, regional burn center, women's and children's services, comprehensive senior care program, teen and adolescent care programs, Eskenazi Health Midtown Community Mental Health, and a network of primary care sites located throughout the neighborhoods of Indianapolis known as Eskenazi Health Center.

In December 2013, Eskenazi Health opened the brand new Sidney & Lois Eskenazi Hospital. It is Central Indiana's first Leadership in Energy and Environmental Design (LEED®) Gold health care campus and offers unique features such as a one-of-a-kind sky farm and an extensive art collection.

REFERENCES

¹U.S. Department of Health and Human Services and U.S. Department of Agriculture. *2015 – 2020 Dietary Guidelines for Americans*. 8th Edition. December 2015. Available at <http://health.gov/dietaryguidelines/2015/guidelines/>.

²U.S. Department of Health and Human Services and U.S. Department of Agriculture. *What We Eat in America. NHANES 2011–2012*. Available at http://www.ars.usda.gov/SP2UserFiles/Place/80400530/pdf/1112/tables_1-40_2011-2012.pdf.

³Mattes RD, Donnelly D. Relative contributions of dietary sodium sources. *J Am Coll Nutr*. 1991;10:383–93.

RESOURCES

Centers for Disease Control and Prevention, U.S. Department of Health and Human Services and General Services Administration. *Health and Sustainability Guidelines for Federal Concessions and Vending Operations: Health and Human Services General Services Administration* available at <http://www.gsa.gov/portal/content/104429>.

Creating Healthy Hospital Environments: Making Healthier Food, Beverage, and Physical Activity Choices. Available at <https://www.cdc.gov/obesity/hospital-toolkit/pdf/creating-healthier-hospital-food-beverage-pa.pdf>.

Sonnenberg L, et al. A traffic light food labeling intervention increases consumer awareness of health and healthy choices at the point-of-purchase. *Prev Med*, 2013; 57 (4): 253-7.

Thorndike A, et al. Traffic-light labels and choice architecture. *Am J Prev Med*, 2014; 46 (2):143-149.

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HEALTH**

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