



Partnering with Food Service to Reduce Sodium:

A TOOLKIT FOR PUBLIC HEALTH
PRACTITIONERS

 National Network
of Public Health Institutes

 Health Resources in Action
Advancing Public Health and Medical Research

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CONTINUED WORK IN SODIUM REDUCTION

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Introduction

Over three-quarters of the sodium consumed by Americans comes from processed and prepared foods¹ — and the average American is consuming well over the recommended daily allowance.² Consuming too much sodium is associated with elevated blood pressure, posing health risks including heart disease and stroke, which are leading causes of death³ in the United States.

Partnering with food service providers in venues such as worksite cafeterias, hospitals, and congregate food sites (such as meal delivery and elder services) presents a key opportunity to reduce sodium consumption. Yet these food service providers experience constraints and real-world challenges that can make it difficult to reduce sodium content of foods or offer lower-sodium alternatives. Time, professional training, availability of ingredients, consumer preference, and overall concerns about costs and the bottom line are important considerations when working with food service providers to reduce sodium.

In the last few years, market demands and food trends have helped to build a case for reducing sodium in the food supply. Many companies in the food industry have embarked on efforts to reduce sodium, with several meeting National Sodium Reduction Initiative standards.⁴ And consumer interest in fresh, locally-sourced foods and “clean labels” (simplified ingredient lists on food labels) present opportunities and motivation to reduce sodium content.

On behalf of Health Resources in Action (HRiA) and the National Network of Public Health Institutes, we hope you find this toolkit useful for your partnerships with food service providers. If you have any questions or comments, please direct them to HRiA.⁵

RELATED RESOURCES:

Dietary Guidelines for Americans 2015–2020, US Department of Health and Human Services and US Department of Agriculture

Health and Sustainability Guidelines for Federal Concessions and Vending Operations, US Department of Health and Human Services and General Services Administration

Smart Food Choices: How to Implement Food Service Guidelines in Public Facilities, US Department of Health and Human Services

The resources above and others can be found on the CDC's Healthy Food Service Guidelines web page: <https://www.cdc.gov/obesity/strategies/food-serv-guide.html>

Salt Stats, CDC

One-page, quick facts about salt and the toll it takes on our health and health care costs

¹ <https://www.ncbi.nlm.nih.gov/pubmed/1910064>

² http://www.ars.usda.gov/SP2UserFiles/Place/80400530/pdf/1112/Table_1_NIN_GEN_11.pdf

³ <https://www.nap.edu/read/10925/chapter/1>



A TOOLKIT FOR PUBLIC HEALTH PRACTITIONERS

This toolkit provides public health practitioners with a list of strategies, tools, and resources to build new and/or enhance existing partnerships with food service providers to reduce sodium in foods prepared, served, and sold. It is meant to help public health practitioners identify and engage food service providers to reduce the sodium content of food by understanding the context of food service settings as well as the language and drivers of food service providers. Case studies and success stories provide examples of stories from the field, aiming to inspire and generate ideas for implementation. Finally, tools and resources developed for public health and food service professionals are included to impart the experience and learnings of previous sodium reduction efforts.

⁴ <http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2016.303397>, <http://www.naturalproductsinsider.com/news/2013/02/21-companies-met-national-salt-reduction-initiative.aspx>

⁵ <https://hria.org/about/contact-us/>



SODIUM AND FOOD SERVICE GUIDELINES

Food service guidelines are often used to provide specific support to food service providers for delivering and encouraging healthier foods and beverages in food service facilities.

The U.S. Department of Health and Human Services (HHS) and General Services Administration (GSA) developed the *Health and Sustainability Guidelines for Federal Concessions and Vending Operations*⁶ for food available for purchase at food service concession operations and vending machines in federal facilities. One of the goals of these guidelines is to assist contractors in maximizing a healthier and sustainable food service by decreasing the sodium content in available foods. Such guidelines are in place to help individuals meet the dietary recommendations for a healthy eating pattern outlined in the 2015–2020 Dietary Guidelines for Americans,⁷ which limit sodium to less than 2,300mg per day for adults and children ages 14 years and older.

“Standard criteria” for sodium from these guidelines include:

- All individual food items must contain ≤ 480 mg sodium as served, unless otherwise designated in the specific categories of the Food Selection Standards in Concessions and Vending
- All meals must contain ≤ 900 mg sodium, as served

Food Standards in Concessions (related to sodium):

- **Standard Criteria**
 - ✓ All vegetable offerings must contain ≤ 230 mg sodium, as served
 - ✓ Mixed dishes containing vegetables must contain ≤ 480 mg sodium, as served
 - ✓ All cereal, bread, and pasta offerings must contain ≤ 230 mg sodium per serving
 - ✓ Processed cheeses must contain ≤ 230 mg sodium per serving
 - ✓ Canned or frozen tuna, seafood, and salmon must contain < 290 mg sodium per serving, and canned meat < 480 mg sodium per serving
 - ✓ Vegetable juices must contain ≤ 230 mg sodium per serving
- **Above Standard**
 - ✓ Offer at least one prepared vegetable option with ≤ 140 mg sodium as served
 - ✓ If cereal is offered, offer at least one cereal with ≤ 140 mg sodium per serving
 - ✓ Offer at least one low sodium vegetable juice (≤ 140 mg sodium per serving)

Food Standards in Vending (related to sodium):

- Only snack items that contain ≤ 230 mg sodium per serving can be offered (excluding refrigerated meals)
- Individual meal items must contain ≤ 480 mg sodium per serving.⁸

⁶ http://www.cdc.gov/chronicdisease/pdf/guidelines_for_federal_concessions_and_vending_operations.pdf

⁷ <https://health.gov/dietaryguidelines/2015/guidelines/>

⁸ https://www.cdc.gov/obesity/downloads/guidelines_for_federal_concessions_and_vending_operations.pdf

Building Partnerships

These partnerships are essential since all play a role in the foods that are prepared, sold, and served in different food service establishments.

IDENTIFYING VENUES, TARGET POPULATION, AND POTENTIAL PARTNERS

Consumer demands and preferences are shifting, and consumers express interest and demonstrate receptivity to healthier foods, including foods with less sodium.⁹ This presents an enormous opportunity for public health to “ride the market wave” and effectively appeal to food service partners while working toward improvements in population health.

In order to reach large populations, your first step as a public health professional is to determine potential opportunities for sodium reduction and key partners to engage or maintain. Consider the population you are trying to target in terms of health risk, demographics, and reach, and the food service venues that reach those populations. Alternately, you might have existing relationships on which you can build to include sodium reduction goals.

Food service settings can be quite different in terms of the population they serve, their structure, and their operations. Worksites, hospitals and health care systems, and universities can serve hundreds or thousands of people a day, and vary by the populations they serve and the facilitators and challenges they experience in reducing sodium. However, all food service settings share one thing in common — reliance on the food supply chain. This is important to understand in order to impact sodium content and sodium consumption.

All along the food supply chain, sales are the driving force

While you can make a health case for sodium reduction, and a food service partner might wholly support it, there are several levels of business collaborators involved in most food preparation and service. The key is to know what roles they can play in reducing sodium, what their interests and challenges are, and how you can align your objective to improve population health with their need to maintain sales.

⁹ <http://www.foodinsight.org/articles/2014-food-and-health-survey>

FOOD SECTOR COLLABORATORS

Here is a list of the various food sector collaborators, all of whom play a role in the food supply chain:



MANUFACTURERS

Private or public companies that develop and produce processed and fresh foods for commercial and retail service.

Potential roles in sodium reduction: Develop, reformulate, and produce lower sodium products



DISTRIBUTORS AND VENDORS

Intermediary between manufacturers and their buyers, distributors purchase, stock, sell, and deliver goods and services for food service providers. Distributors are generally “one-stop shops” for multiple food service needs such as food and food safety products, marketing services, point of sales tools, and food service training programs. Examples of large food distributors include Sysco, US Foods, and Gordon Food Service. Not all distributors deliver goods, such as large membership warehouse clubs like Costco to small, cash and carry distributors.

Potential roles in sodium reduction: Source and stock lower-sodium products and demonstrate consumer/client demand for lower-sodium products to manufacturers; assist food service providers by sharing information on the availability of products



BROKERS

Employed by manufacturers to work directly with local salespeople, brokers market products through the distribution system and are paid on volume of food they sell. Examples of large, national brokers include ACOSTA Foodservice and Waypoint.

Potential roles in sodium reduction: Demonstrate consumer/client demand for lower-sodium products to manufacturers and promote lower-sodium products to clients (salespeople) based on interest



SALESPeOPLE

Employed by distributors, salespeople are the face of the distributor to the food service provider. Salespeople manage multiple accounts, generally work on commission, and need to have an ear to the ground for consumer and food service demands.

Potential roles in sodium reduction: Demonstrate consumer/client demand for lower-sodium products to manufacturers and promote lower-sodium products to clients by marketing items that meet the client’s needs, maintaining communication and product supply, and potentially contacting a broker if a specific product of interest is difficult to find, new, or uncommon



CONTRACT FOOD SERVICES

Companies that manage large-scale dining and catering services across institutional settings (e.g. correctional facilities, military dining facilities, senior living communities, universities) and other settings (e.g. hospitals, worksites, sport and cultural venues and vending machines). Examples include Sodexo, Aramark, and Compass Group.

Potential roles in sodium reduction: Develop lower-sodium, standardized recipes, implement modified cooking techniques to reduce sodium, replace high-sodium products in inventory, and engage in marketing and behavioral economic strategies to encourage healthy eating



FOOD SERVICE MANAGERS/DIRECTORS

Employed in institutional and commercial settings by self-operated or contract food service companies. Food service managers/directors are responsible for the daily operations of the food service provider. They may have cooking experience or nutrition background, such as an Executive Chef or Registered Dietitian.

Potential roles in sodium reduction: Demonstrate commitment to sodium reduction; support staff in implementing kitchen-based strategies, such as with training; engage in marketing and behavioral economic (based in how people make decisions) strategies to maximize healthy eating; demonstrate demand for lower-sodium products to distributors



GROUP PURCHASING ORGANIZATIONS (GPO)

Collectives of food purchasers organized to buy in larger quantities with greater negotiating power. The market share controlled by such groups is projected to grow.

Potential roles in sodium reduction: Use purchasing power to demand development and sourcing of lower-sodium foods, support product replacement



CHEFS

Executive chef, cafeteria chef, etc. Different food service settings/institutions may use “chef” or “cook.”

Potential roles in sodium reduction: Lead the implementation of kitchen-based strategies to reduce sodium including modified cooking techniques and “scratch cooking;” support staff such as with training; identify opportunities for product replacement; manage portion size; engage in marketing and behavioral economic strategies to maximize healthy eating



FOOD SERVICE LINE STAFF

All staff directly involved in the preparation and serving of food. Can include cooks, prep cooks, and servers.

Potential roles in sodium reduction: Implement kitchen-based strategies to reduce sodium including modified cooking techniques and “scratch cooking;” identify opportunities for product replacement, manage portion size, engage in marketing and behavioral economic strategies to maximize healthy eating.



FOOD SERVICE PURCHASING STAFF

Staff members responsible for maintaining product inventory and controlling costs, if not already managed by the food service manager/director.

Potential roles in sodium reduction: Demonstrate demand for lower-sodium products to distributors, identify product replacements, and participate in group purchasing for lower sodium foods.



DIETITIANS

A trained health professional with expertise in nutrition and dietetics commonly found in institutional settings.

Potential roles in sodium reduction: Perform nutrient analysis and menu planning; advise on kitchen-based strategies to reduce sodium including recipe reformulation, portion size establishment, modified cooking techniques, and product replacement; engage in marketing and behavioral economic strategies to maximize healthy eating.

Food sector collaborators adapted from:

<http://www.dialogue4health.org/resource-library/detail/julie-bongard-connecting-public-health-and-the-food-industry-through-public>

BUILDING SUCCESSFUL PARTNERSHIPS

Key to an effective sodium reduction effort are strong partnerships that fully utilize the skills, experience, and leverage of every stakeholder.

As a public health practitioner, your goal is to improve health outcomes among the populations you serve. This might be specific to sodium reduction in higher-risk populations, or you might be working to improve overall nutrition. Food service providers may share your motivation to improve health, but often they must also maintain sales, save costs, or generate profit. It is in this context that you must work. In building relationships with food service providers and supporting the implementation of sodium reduction strategies, you are offering your expertise. However, it is critical that you understand the environment in which your food service partner works and are able to speak their language.

Sodium reduction initiatives, led by public health at the local, state, and national levels in collaboration with the food industry, have yielded valuable lessons for how to build strong partnerships:

1

RECOGNIZE THE VALUE AND EXPERTISE OF FOOD INDUSTRY PARTNERS

Consult with partners as expert advisors at every step, including the earliest stages of planning.

2

MAKE THE BUSINESS CASE

Demonstrate consumer support and demand for lower-sodium, healthy products, and address potential financial impacts of sodium reduction efforts.

Consumer Support

- **Infographic: 74% of Americans Want Less Sodium**, American Heart Association, Nearly 6 in 10 adults have tried to reduce the amount of sodium in their diets, and three-quarters want less sodium in processed and restaurant foods.
- **What Do Consumers Really Think About Policies to Reduce Sodium?**, CDC

Business Solutions

- **Talking Points for Public Health: Responding to Common Perceived Barriers among the Food Industry**
- **Sodium reduction can bring costs savings and other benefits:** For employers offering food service to their employees, reduced sodium can improve health outcomes and thereby improve employee productivity and reduce absenteeism. For employers who self-insure, reduced sodium consumption can lead to the additional benefit of reduced health care costs. Sodium reduction in institutional settings can lead to lower health care costs and taxpayer savings. Reduced sodium consumption among the entire population will lead to decreased health care costs overall (States Stand to Save Hundreds of Millions in Health Care Costs with National Sodium Reduction Effort, Center for Science in the Public Interest, May 21, 2105).
- **Success Story: Reducing Sodium Makes Cents: How Morrison Healthcare Is Moving the Marketplace toward Healthful, Lower Sodium Food for Smaller Purchasers**

DEMONSTRATE THE VALUE THAT PUBLIC HEALTH BRINGS TO THE PARTNERSHIP AND THE OVERALL SODIUM REDUCTION EFFORT

As a public health practitioner, you can help food service providers to:

- Establish nutrition goals and healthy food service guidelines
- Leverage the resources and learnings of other nutrition initiatives
- Communicate the benefits of sodium reduction to different stakeholders or constituencies based on their needs and circumstances
- Provide trainings and education
- Establish systems to evaluate outcomes and success in meeting sodium reduction benchmarks¹⁰

Additional tips:

- Get to know the workflow of the food service setting of your partner, and their related challenges in implementing sodium reduction strategies. Don't assume anything — kitchens and food service systems operate differently from one establishment to the next.
- Explore the food service provider's needs in implementing sodium reduction strategies: What needs or concerns do they have related to training, cost, facilities, or expertise, and what can you offer?
- Know what the trends are in food and food service and how you can align sodium reduction efforts with market demand and trends. Resources include:
 - *What's Hot 2016 Culinary Forecast*, *National Restaurant Association*
 - *Fun Food Trends*, *Culinary Institute of America*
- Seek input and feedback from food service staff at all levels impacted by the implementation of sodium reduction strategies, and throughout the process.

¹⁰ http://www.dialogue4health.org/uploads/resources/Wood_060816.pdf





Case Study:

Bush's Beans — Riding the market wave

BACKGROUND

After 13 years working in the retail division at Bush Brothers & Company, Erik Henry became their Director of Foodservice in 2008. He had a vision of expanding the company's client portfolio; in his words, *"I saw the potential for beans to play an important culinary role and not just be seen as a poor man's filler."*

OPPORTUNITY

Looking to elevate beans in the development of new and exciting cuisines, Mr. Henry engaged culinary experts from institutions such as the Culinary Institute of America (CIA), Harvard's Department of Nutrition, Yale's Hospitality Services, and the University of Massachusetts-Amherst Dining Services. This revealed that consumers increasingly preferred more healthful options and had growing awareness around high sodium levels, especially in canned products. In addition to these consumer trends, there was recognition that institutions (such as schools and hospitals) were beginning to set or employ nutritional standards or guidelines to govern the healthfulness of their food service offerings. Mr. Henry recognized that offering reduced sodium beans was *"where the future will be."* The development of a reduced-sodium product line would increase its nutritional value; in addition, it would likely be a smart business decision.

STRATEGIES

With the ambition of developing a reduced sodium line, Bush's Beans identified the four top-selling ingredient beans: black beans, garbanzos, kidney beans, and pinto beans. A team of product engineers successfully developed "low sodium" versions of each, as designated by the Food and Drug Administration Guidelines (≤ 140 mg per serving). Once the products were developed, they were launched and their stock keeping units (SKU) were monitored to determine how sales would be impacted.

According to Mr. Henry, the low sodium line took about a year to launch. In foodservice, new products need to be pitched to institutional food purchasers such as distributors, chefs, dietitians, and others who may be reluctant to change purchasing patterns. The low sodium line was pitched to foodservice providers at conferences and events. Remembering back to the first year, Mr. Henry said, *"It was a slow build. Oftentimes, Foodservice is a shoe leather business. You have to knock on a lot of doors, one at a time."*

Early on, Bush's Beans also marketed the low sodium line directly to colleges and universities, believing that they could be early adopters as they have more flexibility to determine what they want on their menus.

SUCCESSSES

- Overall, Bush's Beans deems the low sodium line of ingredient beans a great success both in sales and in expanding the company's client portfolio to a wider array of institutions.
- Specifically, the passage of the Healthy, Hunger-Free Kids Act (HHFKA) in 2010 was fortuitous in its timing for Bush's Beans' sodium reduction efforts. HHFKA prioritized sodium reduction overall; additionally, it required that beans and legumes be served once a week as part of school meals. Bush's Beans had not previously prioritized school lunch programs, but once the legislation went into effect, they were well poised to access this foodservice market.
- In addition, Bush's Beans successfully marketed its low sodium line over time to large contract management companies that work with universities, hospitals and healthcare facilities, stadiums, etc. Mr. Henry found these companies, sometimes on their own accord and sometimes due to client requests, have been proactive in reducing sodium and increasing the healthfulness of their options. Some companies have even limited their bean offerings to the low sodium versions when the options were available. Thus, as an early developer of low sodium bean products, Bush's Beans again found themselves to be well-poised to promote their new products.
- Since the launch of the first four low sodium beans, Bush's Beans launched a low sodium cannellini bean. Mr. Henry aspires to eventually offer reduced sodium versions of as many products as possible.

CHALLENGES

While Bush's Beans views the development of their low sodium line as a success, there were a number of challenges that they encountered, including:

- **Reducing sodium, while maintaining product quality:** While salt is known for its flavor enhancing properties, it is also used as a firming agent in canned items. Some bean varieties lose their structural integrity with sodium reduction (140mg) and could not be modified.
- **Marketing to food service settings:** Large contract management companies and distributors do not want to carry a wide variety of the same product, unlike a grocery store. As Mr. Henry said, *"It's a logistical challenge. They don't want to carry two types of [the same product]; they just want to sell the best-selling one. Sometimes we run into headwinds when trying to build distribution for the [low sodium product]."*

RECOMMENDATIONS FOR PUBLIC HEALTH AND CONCLUSION

Bush's Beans demonstrates how sodium reduction can be beneficial for consumers, and the business. From their experience, they made recommendations to the public health sector to support future partnerships with the food industry. These recommendations include:

- **Identifying opportunities for alignment with health and consumer trends:** The bottom line is one of the drivers of food industry business decisions. Public health can set food industry partners up for greater success by identifying opportunities to align health and consumer/

industry demand. The Healthy, Hunger-Free Kids Act legislation helped Bush's Beans expand their client portfolio to schools across the nation. Intentional alignment with legislative and/or consumer trends might encourage other food manufacturers to invest in strategies to promote the healthfulness of their products.

- **Engaging culinary experts and nutritionists and reaching out to culinary influencers:** The food industry will be more likely to buy in to sodium reduction efforts if they know that public health is engaging and involving trusted and/or reputable culinary experts and nutritionists. For example, when it comes to modifying recipes, food industry partners would rather hear from someone who "knows food" like the Culinary Institute of America.
- **Providing support in health education and promotion:** While Bush's Beans recognized the importance of sodium reduction in health promotion efforts, they *"didn't want to be in the business of making health claims."* Through collaboration with the food industry, public health can provide the expertise, credibility, and resources to play an educational role.

Bush's Beans was able to identify consumer demands and preferences for reduced sodium options early on, and then "ride the market wave" to successfully develop and promote their low sodium product line. Public health can work collaboratively with food industry manufacturers and partners to make the case that sodium reduction is not only the healthier choice, but a sound business choice.

RELATED RESOURCES

Tip Sheet: Sodium Reduction in Food Service, Culinary Institute of America and National Network of Public Health Institutes

Provides key strategies and helpful approaches for public health to consider when engaging food service providers to reduce sodium in foods sold and served. Content ranges from assessing the capacity of a food service operation to balancing public health priorities with business goals to cost-effective culinary techniques that lessen the amount of salt used in common food items.

Web Forum: Reduce the Salt, Keep the Flavor: Getting Started with Food Service Providers

The Culinary Institute of America examines sodium content in food, trends in consumer preference, sodium reduction strategies, and illustrations of the sodium content of prepared foods with alternative, lower-sodium preparation techniques.

Success Story: Building Relationships through Sodium Reduction — County of San Diego

Describes how the County of San Diego built relationships with food service providers in multiple settings and leveraged two different funding sources to address sodium reduction and nutrition standards within these settings to achieve successes in reducing sodium at county venues.

WORKING IN HOSPITALS

Web Forum: Connecting Public Health and Food Service Operators: Reducing Sodium in Hospital and Healthcare Settings

Highlights simple yet broad reaching strategies for reducing sodium in hospital cafeterias, including low-sodium product replacement, alternative salts, menu design, and the messaging and marketing of healthier menu items. Representatives from two local health departments also share their experiences working with food service operators to reduce sodium in healthcare and hospital cafeteria foods.

Creating Healthier Hospital Food, Beverage, and Physical Activity Environments, CDC

How to form teams, engage stakeholders, and conduct assessments and evaluations.

WORKING WITH MANUFACTURERS

Web Forum: Connecting Public Health and the Food Industry: Reducing Sodium through Food Manufacturing

The National Dairy Council shares efforts by cheese makers to lead process control and product innovations as part of the solution to help lower sodium — while maintaining expectations for food safety and taste. Also, representatives from an integrated healthcare system and local pizza dough manufacturer discuss their unique partnership to lower the sodium content in pizzas sold and served to customers.

Web Forum: Connecting Public Health and the Food Industry: Voluntary Commitments to Reduce Sodium

The County of San Diego describes how sodium reduction efforts are supporting the development of County nutrition standards. General Mills highlights the factors that led to their voluntary public commitment to reduce sodium, approaches used to reduce sodium, results to date and lessons learned. General Mills also discusses lower-income consumers' food values and beliefs, and the importance of understanding what drives their health and food decisions.

WORKING WITH CONTRACT FOOD SERVICE

Web Forum: Connecting Public Health and the Food Industry: Voluntary Commitments to Reduce Sodium

Representatives from the Morrison Healthcare discuss the role of food service vendors in the food system, factors that can affect positive supply chain changes in the industry, and the barriers/challenges often faced. They also provide examples of successful endeavors by a regional food service vendor to increase the availability and variety of lower-sodium products. A public health representative presents efforts to scale healthy food procurement and engage food industry partners in Los Angeles.

Assessing the Food Service Environment

Now that you've begun building a partnership with a food service provider, the next step is to assess the food service environment to identify opportunities and targets for sodium reduction. The data and information collected through the assessment phase will inform the selection and implementation of the most effective strategies for sodium reduction. There are different approaches to assessing the sodium content of foods within a food service environment, depending on the goals of your initiative.

SODIUM-SPECIFIC ASSESSMENT TOOLS

Environmental tools assess multiple levels that contribute to the preparation, selection, and consumption of high-sodium foods, including ingredient procurement, kitchen preparation practices, and marketing and consumer selection of foods.

Sodium Weighted Evaluation Tool (SWET), Spokane Regional Health District (SRHD)

The SRHD Sodium Weighted Evaluation Tool organizes sodium reduction strategies into five indicators to assess availability and accessibility of lower sodium options. The tool uses a weighted scale for each sodium reduction strategy. The weighting was developed through consensus by a panel of sodium experts who represented medicine, clinical nutrition, food production in large worksites and product sales. The SWET tool helped SRHD work with large worksite cafeterias to prioritize their sodium reduction efforts in order to have the biggest impact possible. SRHD adapted the Restaurant Assessment Tool and Evaluation (RATE) developed by Schenectady County Public Health as part of the Sodium Reduction in Communities Program. The RATE tool was the first sodium-specific, food service-oriented assessment developed to measure changes in food preparation and product usage over time.

Sodium Practices Assessment Tool and Action Plan, New York State Department of Health

The Sodium Practices Assessment Tool (SPAT) was developed to help individual food sites assess and improve their sodium practices. The tool is appropriate for use in a wide variety of settings, including government agencies, hospitals, worksites, and senior meal programs. It is currently being updated and adapted for use in early childcare centers and college universities. The SPAT uses an interview format to gather background information, assess current practices, and develop a sodium reduction action plan. The SPAT can also be re-administered to measure changes in sodium practices. For more information, contact Ann Lowenfels at ann.lowenfels@health.ny.gov.

Making use of the SPAT, one CDC Sodium Reduction in Communities Program grantee conducted a pantry inventory of food service partner sites. They worked with a team to photograph all pantry items in worksite cafeterias and conduct nutrition analysis, which then informed menu and recipe development.

NUTRITION ENVIRONMENT ASSESSMENT TOOLS THAT INCLUDE SODIUM

Healthy Hospital Food and Beverage Environment Scan, CDC

Comprehensive tool assessing cafeteria and vending in the hospital setting

A Step-by-Step Guide, Using the Healthy Hospital Food, Beverage, and Physical Activity Environment Scans, CDC

Comprehensive guide for implementing strategies based on the Healthy Hospital Food and Beverage Environment Scan

Nutrition Environment Measurement Surveys, or NEMS

Tools that assess the overall environment based on different settings, including restaurants, cafeterias, vending, and others. Tools, resources, and trainings are offered by the Perelman School of Medicine at the University of Pennsylvania.

- **NEMS Restaurant Measures (NEMS-R), Perelman School of Medicine at the University of Pennsylvania**

The updated NEMS-R assesses the nutrition environment in restaurants based on eight types of food indicators, including healthy main dish choices, availability of fruits and vegetables, children's menus, pricing, and others.

- **Nutrition Environment Measurement Survey-Vending (NEMS-V), NEMS and Iowa Department of Public Health**

The NEMS-V is a survey tool used to measure the availability of healthy food and beverage items in a vending machine environment. The assessment evaluates contents of a vending machine on a “traffic-light” scale to determine how many and which healthy items are stocked. The nutrition standards were originally based on Institute of Medicine (IOM) Nutrition Standards for Foods in Schools with some modification for Iowa's Healthy Kids Act (2008). Criteria has been updated to match Health and Sustainability Guidelines (HHS) for Federal Concessions and Vending Operation (2012).

NUTRITION ANALYSIS

Nutrition analysis refers to the process of determining the nutritional content of foods. The process can be performed through a variety of methods but web-based nutrition analysis software services are among the more popular. Online nutrition analysis allows users to access online databases and draw from certified ingredients to produce instant nutrition information. Sodium content and other nutrition values can be compared to food service guidelines to assess the extent to which the food contributes to recommended daily allowances. A dietitian is best qualified to conduct nutrition analysis.

Nutrition analysis may be part of a larger environmental assessment (in which you are assessing multiple nutrients), or it can be a stand-alone approach to understand the sodium content in foods. Additionally, you may decide to analyze all foods prepared, or start with the top-selling dishes or categories of foods.

For accurate nutrient analysis of a prepared food, you need to start with a recipe — which may be your first challenge. In many kitchens, recipes are not recorded, are modified over time, and/or are executed differently by different cooks. If recipes do not exist or are not consistently followed, then a recipe must be developed, and cooks must adhere to them.

Online nutrition analysis software and databases include the USDA Food Composition Databases (free) <https://ndb.nal.usda.gov/ndb/>, and other paid databases including FoodProcessor, Computrition, Nutritionist PRO, and others.

RELATED RESOURCES

Success Story: Reducing Sodium in Steuben County: Purchase, Preparation, and Portions, New York State Department of Health

Highlights rigorous assessment processes with food service providers which informed sodium reduction strategies to implement.

Success Story: Teaming up to Reduce Sodium in Meals for Seniors, San Antonio Metropolitan Health District

Demonstrates how nutrition analysis led to product replacement and food preparation techniques to reduce sodium among meals served to seniors.

Success Story: Sodium Reduction in University Cafeterias, Spokane, Washington

Using their own Sodium Weighted Evaluation Tool, the Spokane Regional Health District worked with food service providers to identify sources of excess sodium and apply modified food preparation techniques and product substitution to reduce sodium.



COST- AND TIME-EFFICIENT ASSESSMENT APPROACHES

“Sodium Savvy”

Use this simple 14-question survey to determine how “sodium savvy” a food service setting is, and to identify areas for improvement.

High-Sodium Product Categories and Key Ingredients

Assess use of these five high-sodium product categories in food preparation to guide decisions about product replacement and kitchen preparation practices. Many of these ingredients are used across recipes, so addressing one high-sodium ingredient can lead to reduced sodium in multiple recipes.

- Soup bases
- Canned tomato products (see Training Video for Food Service Providers: Reducing Sodium with the World’s Premier Culinary College: Tomato Sauces,¹¹ Culinary Institute of America and National Network of Public Health Institutes
- Breads and rolls
- Cheese
- Sauces and dressings
- Cold cuts and cured meats
- Poultry

¹¹ <https://vimeo.com/193588413>

The Healthy Hospital Foods Toolkit

The Healthy Hospital Foods Toolkit shares lessons learned from a two-year pilot program measuring the effectiveness and sustainability of efforts to reduce sodium content in food items offered by hospital cafeterias in the Eastern Maine Healthcare System. It is designed by and for foodservice professionals and includes practice innovations and successful strategies such as: procurement mechanisms, environmental changes, recipe and menu reformulation, as well as health promotions and education.

For more information about the project or if you would like a copy of the toolkit please contact:

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Implementing Effective Strategies for Sodium Reduction

Using assessment data, input from the food service provider, and other expertise you might be able to draw on (such as a Registered Dietitian or other food service staff), review the list of strategies below to determine the most appropriate and effective strategy or strategies for reducing sodium in targeted venues.

As you review each strategy, consider the following:

- **Feasibility:** What kind of resources (human and financial) are needed to implement this strategy? Would this strategy have a significant negative effect on the bottom line? Are the supports or infrastructure in place necessary for the strategy to be successfully implemented? Are there significant barriers to implementation?
- **Potential for impact:** How much will this strategy contribute to lower sodium content of foods? To what extent will this strategy increase availability and access to lower sodium foods? To what extent will this strategy result in reduced sodium consumption?
- **Will:** Is there enthusiasm for this strategy? From the consumer, to line staff and managers, to administrators and policy makers, will this strategy be met with support?

Sodium reduction efforts tend to have greater success when a new product and new formulations/recipes are implemented gradually, allowing people's palates to adjust. Therefore, you may choose to start with one strategy and implement additional strategies on a phased approach, or you may choose to implement multiple strategies simultaneously. Additionally, strategies can be tailored to meet the needs of your partners and venues. For example, product replacement can focus on top-selling prepared food items or base products used with most frequency.



REMINDER

If you have not done an assessment as outlined in the Assessing the Food Service Environment section, it is important to first establish some baseline measurements and set benchmarks, before implementation, so that you can demonstrate progress or success.



STRATEGY: MODIFIED KITCHEN PREPARATION METHODS/CULINARY TECHNIQUES TO ENHANCE FLAVOR

This is the use of different methods of cooking to develop recipes that are lower in sodium but still well received by the customer. This may include strategies to limit salt (such as outfitting cooks to follow recipes, precise measurement, and not engaging in “free salting”), using other ingredients or methods to enhance flavor, and even scratch cooking — preparing foods using basic ingredients rather than using prepackaged items. Some examples include:

- Replacing salt in recipes with more herbs, spices, and fresh garnishes
- Making scratch marinades or dressings, allowing for the amount of salt to be controlled
- Using techniques such as roasting, searing, and sautéing instead of frying food to avoid the salt and fat that can come from the oil and coating

RELATED RESOURCES

Culinary Demonstration Video Series for Food Service Providers: Reducing Sodium with the World's Premier Culinary College

The Culinary Institute of America and National Network of Public Health Institutes, with support from the CDC, produced a series of four instructional videos on simple culinary strategies and techniques to reduce sodium in food service settings. The videos are intended for food service professionals and public health professionals working with food service partners.

VIDEOS INCLUDE:

- **Salad Dressings**
Demonstrates how to make an everyday low sodium vinaigrette from scratch and how to reduce sodium in ready to use/commercially available dressings by incorporating fresh ingredients.
- **Flavor Building Techniques**
Explores cooking and seasoning techniques that enhance the flavor of dishes without the sodium.
- **Tomato Sauces**
Prepares reduced sodium versions of a classic tomato sauce from frequently-used canned tomato products as well as several other tomato-based sauces using different ingredients and methodologies.
- **Ready to Use Foods**
Identifies the sodium content of common Ready to Use foods and then demonstrates methods for decreasing the sodium in dishes using Ready to Use foods through the addition of fresh, low sodium ingredients.

Web Forum: Connecting Public Health and Food Service Operators: Culinary Techniques for Reducing Sodium

The Culinary Institute of America examines how different tastes and flavors impact the perceived need for sodium in food, and showcase how certain ingredients and culinary techniques can help reduce sodium use in prepared foods. In addition, a representative from the Philadelphia Department of Public Health shares the experience of working with Chinese takeout restaurants to use culinary techniques to reduce sodium.

Restaurant Guide: Cut the Sodium but Keep the Flavor, California Department of Public Health

Includes nine easy strategies for reducing the sodium while maintain optimal flavor with examples and tips.

Success story: Reducing Sodium and Added Sugars at a Leading Academic Institution, Association of State and Territorial Health Officials

An institutional snapshot of Harvard University Dining Services highlighting several strategies, including modified and scratch cooking, to reduce sodium content. This success story also demonstrates how schools of public health can play a role in reducing sodium on their own campus.

Food Navigator: Sodium Reduction

Articles and trends related to sodium reduction in the food industry



STRATEGY: SOURCING & DEVELOPING LOWER-SODIUM INGREDIENTS

Seeking products with less or no salt added, such as breads, canned sauces, and beans can be an effective method to significantly reduce the sodium in food. For example, replacing a sourdough bread for a multigrain option can not only reduce salt, but improve the nutritional content of the bread served. Food service providers may need to work with distributors to identify or source lower-sodium options (also see Group purchasing for lower sodium). Remember, some foods/ingredients can actually be lower in sodium than those labeled “low sodium.” Reviewing nutrition labels or consulting nutrition databases is key.

Occasionally good low-sodium options are not readily available, and partnering with a distributor or vendor to develop a lower-sodium option is a strategy to pursue.

RELATED RESOURCES

National Salt Reduction Initiative Packaged Food Categories and Targets, National Salt Reduction Initiative

List of packaged food categories including baseline sodium content and targets over a 5-year period

Web Forum: Connecting Public Health and Food Service Operators: Tactical Steps to Sodium Reduction

The Culinary Institute of America examines how public health practitioners can work with commercial and non-commercial food service operators to identify high sodium menu items and begin to change purchasing practices through label reading and buying standards.

Success story: Reducing Sodium and Added Sugars at a Large Food Service Management Company, Association of State and Territorial Health Officials

National company snapshot of Sodexo USA demonstrates how the food management company has been able to source lower sodium products as well as how to overcome challenges related to demand/volume.

STRATEGY: GROUP PURCHASING FOR LOWER SODIUM PRODUCTS

Some food service settings — particularly hospitals — use group purchasing in order to leverage purchasing power by buying products or services with other organizations. Group purchasing provides an opportunity to negotiate prices and product inventory, such as demonstrating demand for lower-sodium products. For example, Morrison Healthcare used their purchasing power through the group purchasing organization Compass Group to acquire lower sodium ingredients without negative impact on the bottom line. Due to their large purchasing power and demand for lower sodium products, the new, lower sodium ingredients are available to Compass Group's other foodservice sectors as well as to other purchasers outside the Compass system.



RELATED RESOURCES

A Strategy Worth Its Salt: Group Purchasing to Supply Lower Sodium Foods & Reduce Food Costs, ChangeLab Solutions

List of group purchasing resources

Reducing Sodium Makes Cents: How Morrison Healthcare Is Moving the Marketplace toward Healthful, Lower Sodium Food for Smaller Purchasers

The Shakedown on Sodium: Using Group Purchasing to Provide Lower-Sodium Foods, ChangeLab Solutions

Steps to implement group purchasing, success stories, and additional resources



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STRATEGY: PRODUCT REPLACEMENT

Product replacement involves identifying ingredients and foods that contribute to the sodium content of meals or dishes, and identifying lower-sodium alternatives in order to reduce overall sodium content without compromising flavor. This is often achieved by assessing pantries, dishes, and recipes for sources of high sodium and replacing them with lower sodium options, such as low-sodium beans, soup stock, and tomato-based products.

RELATED RESOURCES

Restaurant Guide: Cut the Sodium but Keep the Flavor, California Department of Public Health

Includes 9 easy strategies for sodium reduction that maintains flavor with examples and tips

How Sodium Savvy is your food service and Sodium Savvy Food Service Tips, Schenectady County, NY

Simple 14-question quiz and related tips to reduce sodium

Reducing Sodium: Citywide Partnerships and Nutrition Standards, Philadelphia Department of Public Health

Describes strategies to reduce sodium including product replacement

Success Story: Partnering with Worksite Cafeterias to Provide Lower Sodium Options: San Antonio Metropolitan Health District

Highlights product substitution and how partners used purchasing power to negotiate lower-sodium products.

STRATEGY: PORTION SIZE REDUCTION

Managing portion sizes is not only a good sodium reduction strategy, but can contribute to healthy eating overall by ensuring that consumers are eating recommended portions and not consuming more calories and other nutrients than recommended. Portion sizes can be modified to meet HHS/GSA Food Service Guidelines criteria for sodium in foods and help consumers better adhere to US Dietary Guidelines recommendations for sodium intake. For example, pasta offerings can be portioned so that a serving contains <230mg sodium, within the HHS/GSA Food Service Guidelines standard criteria for cereals and grains. Portion size can also be guided by consumer preference and acceptance, such as offering snack-size portions that many consumers find appealing and that also meet guidelines for sodium content.

Examples of portion size modifications to reduce sodium include:

- Using smaller/thinner sliced breads or sandwich buns to cut back on sodium
- Requiring portion-controlled items in the kitchen, such as using limited amounts of higher sodium cheeses and cured meats and using more naturally low-sodium foods like fruits and vegetables to fill the plate without adding sodium
- Offering menu items that can be higher in sodium in smaller bowls, on smaller plates, or pre-portioned, such as dressing packages
- Ensuring kitchen staff measures ingredients used and food served, such as utilizing measuring spoons and cups to both prepare recipes and plate food

RELATED RESOURCES

Restaurant Guide: the Sodium but Keep the Flavor, California Department of Public Health

Includes 9 easy strategies for sodium reduction that maintains flavor with examples and tips

Article: Smaller Portions, Big Benefits

Article about implementing reduced portion sizes and cost savings and profitability



Case Study:

Feeding America — Employing behavioral economics to promote healthy choices

BACKGROUND

Feeding America aims to “*feed America’s hungry through a nationwide network of member food banks and engage our country in the fight to end hunger.*” Providing more 4 billion meals through the network’s 200 food banks and 60,000 food pantries and meal programs across the U.S., Feeding America serves over 46 million people each year.

OPPORTUNITY

Feeding America recognizes its unique opportunity to not only end hunger through the provision of food, but also to promote health. As Registered Dietitian Christine Rivera, Feeding America’s community health and nutrition manager, stated, “*Food banking traditionally focused on just providing food. But in the last decade we have gone from asking, ‘Are we meeting the needs of the people we serve?’, to ‘How are we meeting their needs?’ We increasingly recognize the need to support the population’s health, and Feeding America can play a role in the health of the people we serve.*”

STRATEGIES

HungerandHealth.org, a Feeding America-hosted public platform, aims to educate, connect and engage cross-sector professionals on the intersections

of food insecurity, nutrition and health. The website hosts an array of high-quality tools and resources, including health recipes. All assets are aimed at further informing and empowering professionals working with communities experiencing food insecurity, while ensuring that resources which reach end consumers (in this case, people experiencing food insecurity) are approachable and appropriate. While HungerandHealth.org is not focused on sodium reduction specifically, the website supports sodium reduction overall through its efforts to “*increase access to healthful foods (e.g., whole grains, fruits, vegetables, low-fat and fat-free dairy, lean proteins, and water), and promote nutrition and wellness*” throughout the sector — including at food banks and food pantries, soup kitchens and food programs. According to its *Hunger in America* 2014 study, 79 percent of the people Feeding America serve purchased inexpensive, unhealthy foods just to make ends meet; yet, the most desired foods to receive at food pantries by people served includes fresh fruits and vegetables (55 percent), proteins (47 percent) and dairy (40 percent).

Foods to Encourage (F2E)

As a first step to improve the healthfulness of food offerings, Feeding America developed the Foods to Encourage (F2E) framework.¹² In concordance with the USDA’s *Dietary Guidelines for Americans: 2015–2020* and MyPlate food groups, food qualifying as a

F2E include fruits, vegetables, whole grains, fat-free and low-fat dairy, and lean protein. Approximately 68 percent of food that currently moves through the Feeding America network are F2E. Each year, Feeding America aims to reach higher targets.

Nudges

Beyond ensuring the availability of F2Es in food banks and food pantries, Feeding America employs behavioral economics approaches through “nudges,” or environmental cues to ensure F2E items are selected by consumers. These cues include:

- **Signage** (e.g. a shelf tag with a product’s potential health benefits and an appealing photo);
- **Placement** (e.g. placing a F2E at the first of a series of food items offered and ensuring that F2Es can be seen and accessed easily);
- **Packaging** (e.g. repackaging or bundling food to make them look more attractive);
- **Multiple exposures** (e.g. making F2Es visible at multiple points throughout the pantry); and,
- **Abundance** (e.g. increasing the number of F2E items displayed, and/or ensuring that items look plentiful or overflowing).

SUCCESSSES

- Research by Feeding America and Cornell University found that nudge interventions increased the likelihood that a F2E food item was taken by clients, and the average number of F2E items taken by clients. For more information, find the full report: *The Power of Nudges: Making the Healthy Choice the Easy Choice in Food Pantries*.¹⁴

- Anecdotally, Ms. Rivera stated, *“Our role in making the healthy choice the easy choice for our clients is emerging, and we are seeing through these strategies and through others, that we can have a positive impact on our clients’ health. There is also a culture shift happening, where food banks and pantries are putting policies in place that emphasizes nutritious foods.”*

CHALLENGES

Food pantries and banks have unique challenges of incorporating many F2E due to their perishable nature. These challenges include:

- **Moving perishable items through the donation system:** Donated items are often already close to their shelf life; thus, maintaining a supply of attractive, fresh F2E can be an operational challenge when fresh foods start to perish or wilt shortly after arrival.
- **Operational infrastructure:** Food pantries are often *“church basement initiatives”* without coolers, freezers, etc. to transport or keep perishable foods safely.
- **Staff bias:** Food pantry staff often have their own biases based on personal food preferences or knowledge. For example, if a staff person does not like beets or know what they are, they may be less likely to choose them for the pantry, or display them prominently.

RECOMMENDATIONS FOR PUBLIC HEALTH AND CONCLUSION

The Healthy Bank Food Hub provides practical and evidence-based strategies to bridge anti-hunger efforts with public health and nutrition. These strategies are applicable in a variety of settings.

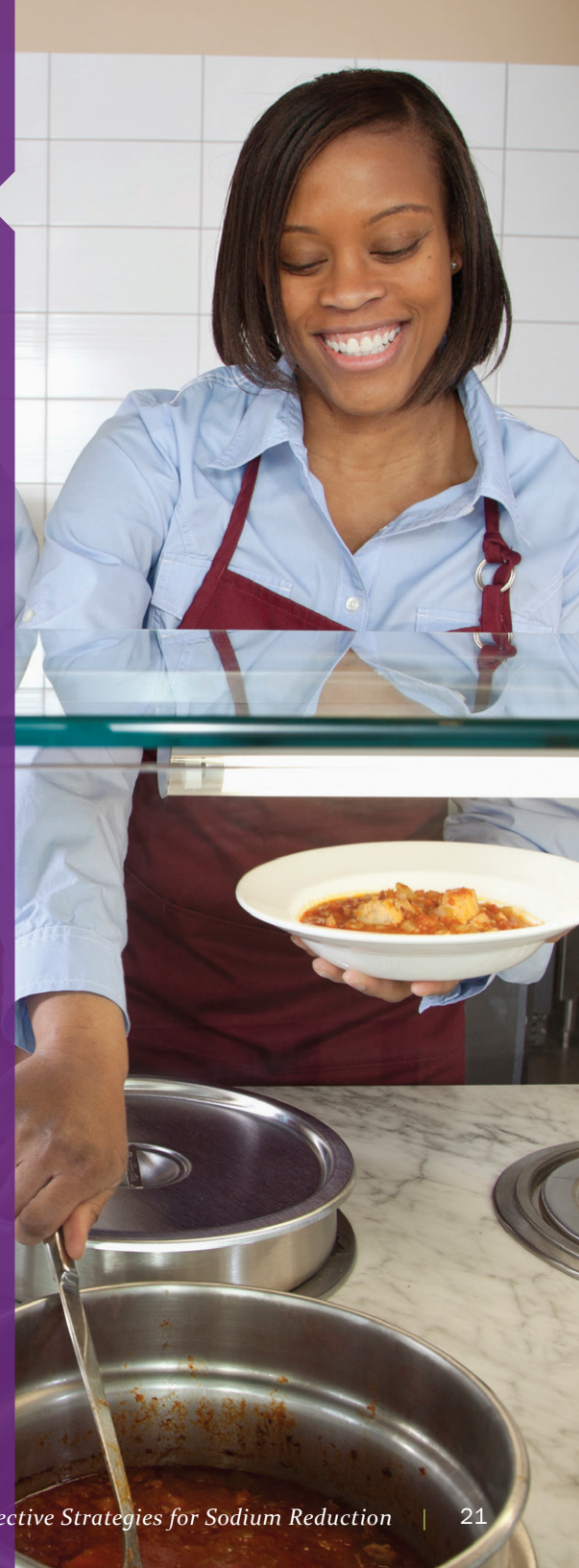
Other recommendations include:

- **Supporting the development and implementation of healthy food distribution environments at the local level:** As Feeding America identifies best practices for its national network, public health can partner in state and local level implementation efforts to identify ways to practically integrate and/or adapt recommendations given unique contextual or resource constraints.
- **Dissemination of research findings and building momentum:** While Feeding America disseminates its research within its own network and in the spheres of public health and nutrition, more work can be done to support these efforts and leverage research findings for greater impact beyond Feeding America’s network of food banks and food pantries.
- **Identifying the impact of F2Es and Nudges upon sodium reduction and developing messaging:** Since Since Feeding America is not currently focused on looking at the impact of its strategies upon sodium reduction, they are not developing messaging around sodium’s health risk. As Ms. Rivera stated, *“There is still deception in how much sodium is in a product...I think working on that perception through messaging and evidence-based strategies will be helpful to educate our clientele.”*

Public health can partner with hunger-relief organizations and food distribution environments to improve the health of some people facing hunger and impact health equity.

¹² <http://healthyfoodbankhub.feedingamerica.org/resource/foods-to-encourage/>.

¹³ <http://healthyfoodbankhub.feedingamerica.org/resource/the-power-of-nudges-making-the-healthy-choice-the-easy-choice-in-food-pantries/>.





6

STRATEGY: BEHAVIORAL ECONOMICS AND MARKETING

Behavioral Economics

These approaches involve altering features of the physical or social environments to lead to behavior changes to increase purchase and/or selection of lower sodium foods.

Examples may include the display and presentation of lower-sodium options, positioning of lower-sodium options relative to higher-sodium choices, taste testing/sampling, and labeling and other promotional strategies. These strategies come at low- or no-cost, and they can have a positive impact on sales.¹⁴

Marketing

Research has found that sodium reductions of up to 20% are not noticeable to consumers, depending on the food product (Sodium Reduction in Food

Service: A Resource for Public Health Professionals Partnering with Food Service Providers, NNPHI and CIA). “Stealth health” approaches, that is incorporating healthier ingredients or preparation methods into food items without drawing consumer attention to these changes, can be an effective strategy when reducing sodium in dishes, as long as the changes are gradual over time and do not “hide” ingredients from consumers who may have food intolerances, allergies, and dietary preferences. Another option is to consider a labeling system that identifies foods as “heart healthy,” using colors (“red, yellow, or green”) or other image/naming conventions. The term “heart healthy” may include but not be limited to reduced sodium. With any marketing strategy, attention should focus on making the healthier option the easier and more appealing option and be adjusted based on consumer selection and sales.

See Case Study: Feeding America — Employing behavioral economics to promote healthy choices on page 22.

RELATED RESOURCES

Talking Points for Public Health: Responding to Common Perceived Barriers among the Food Industry, ChangeLab Solutions

Smart marketing, including “stealth health”

Smart Food Choices: How to Implement Food Service Guidelines in Public Facilities

Includes marketing and promotion strategies (placement, promotion, pricing, labeling)

¹⁴ <http://www.doh.wa.gov/Portals/1/Documents/Pubs/340-224-CafeteriasImplementationGuide.pdf>



GENERAL NUTRITION ENVIRONMENT STRATEGIES THAT INCLUDE SODIUM

These are strategies that aren't limited to sodium only, but that do aim to reduce sodium while achieving other goals. These strategies might be driven by health- or nutrition-related goals, marketing and sales goals, or both.

You and your food service partner might intend to implement food service guidelines that meet specific nutrition benchmarks, or might take a market-driven approach to appeal to health-conscious customers. Some food service settings have also implemented strategies that emphasize locally-sourced and/or fresh foods, which can also achieve goals to reduce sodium. Examples of specific tactics include:

- Using the “whole foods” approach when preparing food, such as making a pasta dish from scratch using ingredients that have not been processed or have been minimally processed (fresh vegetables, whole wheat pasta, fresh pasta sauce) and being mindful of nutrition content (fat, sugar, sodium, etc.)
- Incorporating standards in preparing food, such as committing to baking instead of frying, using ingredients naturally lower in salt, fat, etc., using prepackaged items sparingly, using less healthy ingredients in limited portions

See Case Study: University of Vermont Medical Center — Redefining “hospital food” as fresh, local, and sustainable on page 26.

RELATED RESOURCES

Webinar: Connecting Public Health and Food Service Operators: Changing the Way America Eats

The Culinary Institute of America highlights market-driven menu changes that also address sodium reduction

Implementation Guide: Healthy Nutrition Guidelines: Implementation Guide for Cafeterias, Washington State Department of Health

Comprehensive guide for implementing nutrition guidelines in a cafeteria setting

Implementation Guide: Under Pressure: Strategies for Sodium Reduction in the Hospital Environment, CDC

Guidance for implementing a comprehensive sodium reduction strategy in the hospital environment

Implementation Guide: Under Pressure: Strategies for Sodium Reduction in Worksites, CDC

Guidance for implementing a comprehensive sodium reduction strategy in worksite settings

Implementation Guide: Under Pressure: Strategies for Sodium Reduction in the Institutionalized Environments, CDC

Guidance for implementing a comprehensive sodium reduction strategy in institutionalized environments





Case Study:

University of Vermont Medical Center — Redefining “hospital food” as fresh, local, and sustainable

BACKGROUND

In 2006, the University of Vermont Medical Center (UVM MC) was one of the first organizations in the country to sign Health Care Without Harm’s Healthy Food in Health Care Pledge (Pledge). The Pledge aimed to improve the health of patients, communities, and the environment through the foods procured and served in hospital and health care settings.

The following are some highlights of what Pledge signers commit to do:

- Increase offerings of fruits, vegetables, and nutritionally-dense and minimally processed foods;
- Promote and use foods that are locally and sustainably sourced; and
- Encourage vendors and/or food management companies to procure foods that are free of synthetic pesticides, hormones, or antibiotics.

To access the full Pledge, go to:

<https://noharm-uscanada.org/content/us-canada/healthy-food-health-care-pledge>.

OPPORTUNITY

University of Vermont Medical Center has always recognized that health goes beyond clinical care, and that “nutrition and food systems are inextricably linked to the health of their patients and community.”¹⁵ Prior to signing the Pledge, UVM MC already engaged in scratch cooking for most foods served; thus, signing the Pledge was a natural extension of the direction in which they were already going. As Diane Imrie, Director of Nutrition Services stated, “*The Pledge was an important commitment to make. The foods we offer should reflect University of Vermont Medical Center’s mission of health promotion.*”

STRATEGIES

Surrounded by farmland, UVM MC is uniquely positioned to partner with local farmers and access locally sourced produce, meats, and cheeses. UVM MC collaborated with and supported farmers to scale up production of ingredients such as produce and chicken, and established volume incentives.

UVM MC also employed numerous health-promoting strategies, including (but not limited to):

- Procuring organic products from distributors;
- Eliminating fryers from hospital kitchens;

- Cooking from scratch more frequently, and minimizing the use of processed ingredients;
- Using larger cuts of meats and fish (versus purchasing frozen meats) and slow cooking in house;
- Starting a farmers market for staff, patients, and community members;
- Opening the Harvest Café on UVM MC's campus that is open to the public, which emphasizes waste reduction and healthy menu options that are cooked to order; and
- Building a rooftop garden to source ingredients and educate patients, employees, and the community on how to grow and use fresh foods.

Sodium reduction is a part of UVM MC's holistic approach to serve foods that are fresh, local, and sustainably-sourced, minimally processed, and cooked from scratch. As line chef Jon Beach said, *"We are able to keep our sodium levels down because we rarely use canned, processed, or fried foods. We constantly develop recipes that utilize spices instead of salt to create new flavor profiles. Naturally, when you go healthier all around, you try to reduce fats, red meats, and of course, sodium."*

SUCCESSSES

UVM MC's efforts have been recognized nationally, most recently with the 2016 International Foodservice Manufacturers Association's Silver Plate Award.¹⁵ UVM MC's approach is deemed innovative and impactful in promoting healthy, sustainable food service practices.

These efforts have also proven to be good for business. Their business successes include:

- **Increased patronage and sales** on-site restaurants and cafeterias by UVM MC staff and patients, and community members who come to the campus specifically for the food. In Ms. Imrie's Silver Plate Award feature, she said, *"[They're consuming] healthier food, which is the cheapest health insurance."*
- **Keeping costs neutral.** With increased sales and the expanded customer base, coupled with assertive contract negotiations through group purchasing with the University of Vermont Health Network, UVM MC has managed the cost impact of the premium products purchased.

CHALLENGES

Even with UVM MC's long-standing commitment to approach food services with health in mind, cultural shifts among chefs and kitchen staff were required. For example, Mr. Beach recalled that when fryers were removed from the kitchen, initially *"we didn't get the best feedback."* Similarly, Ms. Imrie reflected, *"It requires more culinary training to ask staff to cut a whole chicken or fish, rather than purchasing pre-cut, frozen meat. Staff felt challenged when products arrived in different forms than they were used to."* In both examples, however, staff were excited and got on board quickly once they received training on how to adapt their culinary practices.

In addition, distributors sometimes would not have products available due to a lack of demand from other institutions. For example, Ms. Imrie described, *"Not every hospital is demanding antibiotic-free chicken, so even if there is access to it, [distributors] will not put it on your shelves."*

RECOMMENDATIONS FOR PUBLIC HEALTH AND CONCLUSION

UVM MC's healthy foods initiatives were led by mission-driven leadership and staff, a long-standing commitment to population health promotion and food systems sustainability, and cultivated relationships with food distributors and local farms. While these ingredients for success might seem unique to UVM MC, Ms. Imrie and Mr. Beach insist that their efforts are replicable. To support other food industry partners to engage in similar efforts, public health can apply the following recommendations:

- **Consider a whole, healthy foods approach instead of focusing on sodium alone.** It is important for public health to work with food industry partners to determine which strategy is most salient, impactful, and feasible in their context.
- **Identify public health's specific expertise and role.** While the food industry is a critical partner in promoting population health, it takes time and resources to change practices. Without dedicated funds or staff, or without a clear market interest, food industry partners may be reluctant or unable to change typical practices. Public health can support the food industry to undertake health promotion efforts that they do not have time or resources to invest in on their own. Such efforts might include making the health and business case for healthy foods and sodium reduction, articulating how such efforts connect to the mission of an organization, marketing and promoting efforts, and educating consumers.

¹⁵ <https://www.uvmhealth.org/medcenter/Pages/About-UVM-Medical-Center/Environmental-Leadership/Center-for-Nutrition-and-Healthy-Food-Systems.aspx>

¹⁶ <http://food-management.com/healthcare/silver-spotlight-lessons-leadership-university-vermont-medical-center-s-diane-imrie?page=1>

Continued Work in Sodium Reduction

Across the country, large and an increasing number of entities representing both public health and the food sector are making great strides to reduce the sodium content of foods served and sold in a variety of settings.

Sodium reduction efforts are being implemented as part of local, state, and national nutrition strategies, including the federally-funded Sodium Reduction in Communities Program (SRCP).¹⁷ Effective approaches have been reported at multiple social-ecological levels, from public policies, such as nutrition standards or guidelines; to organizational level purchasing agreements and procurement practices; to behavior economic strategies that directly influence consumer choices. These successes are supported by changing consumer preferences and the food industry's response to such demands, resulting in reduced

sodium content of both packaged and prepared foods. This toolkit describes and refers to the work, research, and lessons learned through the SRCP and other initiatives, and is designed to help public health practitioners build or enhance partnerships with key stakeholders in the food sector.

Additional resources, tools, and learnings will emerge to support public health-food service partnerships. An easy way to keep updated on the latest developments in sodium reduction is to register for the CDC Salt e-Update (email sodium@CDC.gov to sign up).

¹⁷ http://www.cdc.gov/dhdsp/programs/sodium_reduction.htm



