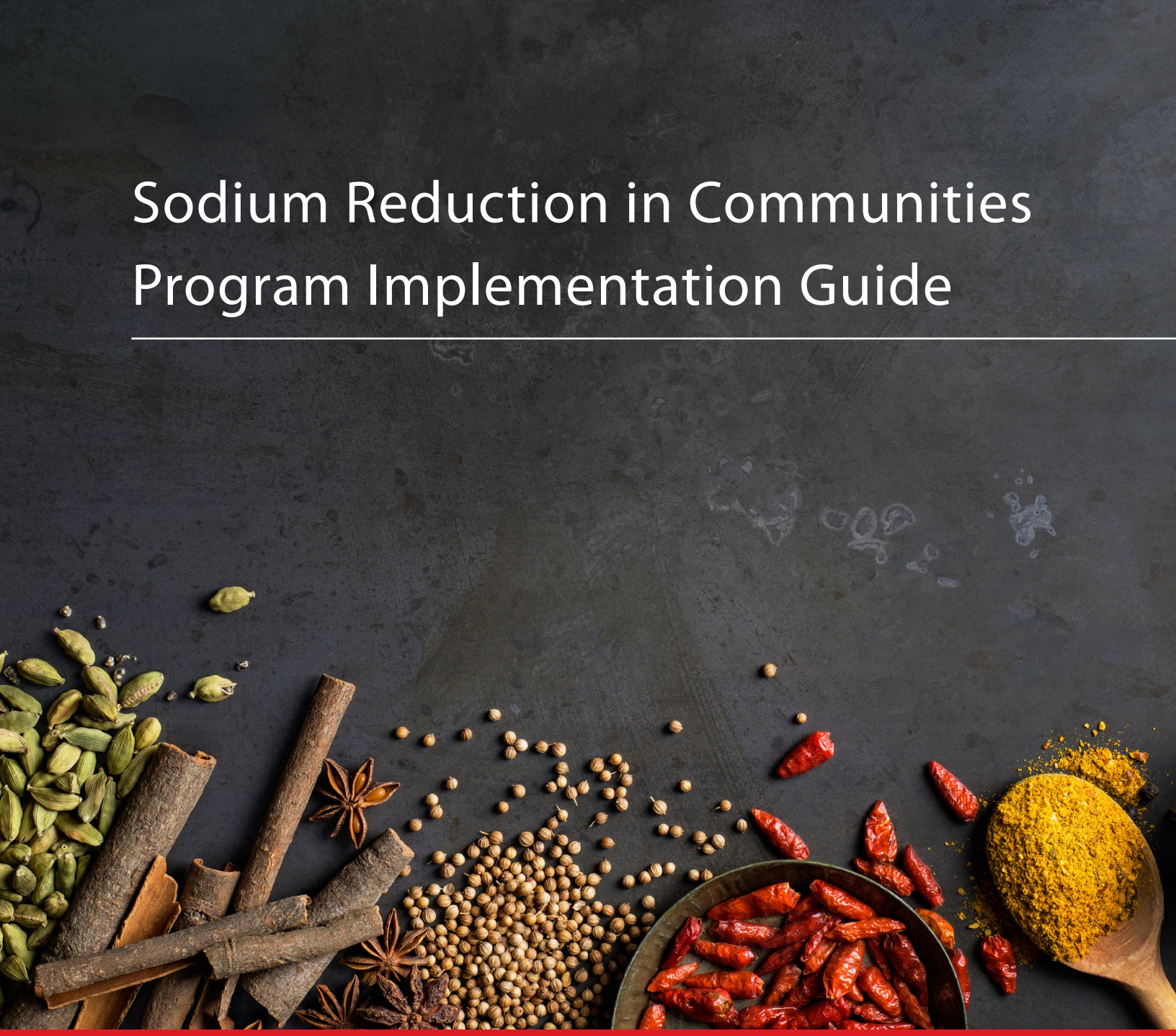
Sodium Reduction in Communities Program Implementation Guide



Sodium Reduction in Communities

Disclaimer

Any mention of companies, product names, specific programs, or resources does not reflect endorsement by the Centers for Disease Control and Prevention.

Contents

Exhibits

List of Acronyms

AHA	American Heart Association
CDC	Centers for Disease Control and Prevention
CFO	Charitable food organization
DOC	Department of Corrections
ECE	Early childhood education center
GSFB	Good Shepard Food Bank
LACDPH	Los Angeles County Department of Public Health
MCHD	Marion County Health Department
NYCDHMH	New York City Department of Health and Mental Hygiene
NYSDH	New York State Department of Health
NEMS	Nutrition Environment Measure Survey
OHA-PHD	Oregon Health Authority-Public Health Division
PDPH	Philadelphia Department of Public Health
PHSKC	Public Health Seattle King County
SKCFC	Seattle King County Food Coalition
SRCP	Sodium Reduction in Communities Program
SPAT	Sodium Practices Assessment Tool
UAMS	University of Arkansas for Medical Sciences

Glossary

Commodity — type of food item purchased in bulk usually at the beginning of the year by larger institutions like schools. USDA Foods is an example of an organization that provides commodity goods. Examples of commodity products include meat or cheese bought in larger, pre-determined quantities.

Cooperative purchasing agreement — type of group purchasing contract that brings together a group of institutions such as schools to jointly procure food items. Cooperative purchasing agreements increase purchasing power, allowing food items, including lower-sodium items, to be bought at a lower price.

Contract food services — also called contract management food service companies; companies that manage food services in large-scale institutions like universities, hospitals, and senior living communities. Examples: Sodexo, Aramark and Compass Group.

Registered Dietitian — health professional trained in nutrition and dietetics who can perform nutrient analysis, among other tasks. This individual can aid in identifying lower-sodium products and revising menus or recipes to support sodium reduction efforts.

Distributor — liaison between manufacturers and buyers. Distributors purchase, sell, and deliver products to coordinate sales between manufacturers, farmers, and others, who produce the food items, and organizations or institutions, who buy the food items. Examples: Sysco and US Foods.

Environmental/behavioral economic strategies — practices that focus on changing the physical or social environment where foods are selected, bought, or consumed to nudge patrons to purchase or select foods with a healthier nutrient profile (e.g., lower in sodium, lower in calories, etc.). Examples of strategies include product placement (e.g., placing water at eye-level, etc.), financial incentives (e.g., price of water cannot exceed the price of sugary beverages, etc.), or promotional activities (e.g., signage).

Executive chef — may be involved in training food service line staff, engaging in marketing strategies, and implementing new cooking techniques and "scratch cooking" to reduce sodium.

External partner — individual, group, or organization outside of the food service organization at the institution implementing sodium reduction activities that is involved in sodium reduction efforts. Examples: distributor, manufacturer, culinary institute, academic institution, nonprofit organization, etc.

Food bid — process to solicit or procure food items, most often commodity products ordered in large quantities, from distributors. Ordering in larger quantities can make lower-sodium products more affordable for food service organizations.

Food broker — an individual who works for a manufacturer to market products. Brokers work directly with local salespeople who market and sell products to food service organizations. Brokers can help to demonstrate patron demand for lower-sodium products.

Food innovation center — food research organizations that can partner with institutions, food service organizations, or manufacturers to develop lower-sodium products.

Food service guidelines — used to create a food environment that encourages healthy choices for patrons. Food service guidelines can include sodium and provide specific voluntary standards for food, nutrition, facility efficiency, environmental support, community development, food safety, and behavioral design for use in food service concession and vending operations. Many food service guidelines already exist. For example, CDC facilities use the Food Service Guidelines for Federal Facilities, which include standards on sodium content in foods among other recommendations, such as food safety and availability of healthy foods.

Food service line staff — staff at the organization or institution who directly prepare and/or serve food (e.g., cooks); these individuals would be directly responsible for implementing new lower-sodium recipes.

Food service manager/director — individual employed in institutional or commercial settings that is responsible for oversight of daily operations of a food service organization. This individual has decision-making power to support sodium reduction efforts.

Food service organization — entity responsible for providing food in organizations or institutions. Involved in the purchasing, preparing, and serving of food. Partners with state and local health departments to implement sodium reduction.

Food service purchasing staff — the individuals responsible for managing costs and product inventory. Sometimes this task is completed by the food service manager/director. This individual would be responsible for negotiating for and purchasing the lower-sodium products.

Group purchasing organization — collectives of food purchasers that buy items in larger amounts. These groups have more negotiating and purchasing power important to creating the demand for lower-sodium products. Some group purchasing organizations work with specific types of organizations, like hospitals or schools. Examples: Premier or Vizient.

Manufacturer — companies who develop and produce food products for commercial and retail service. These organizations can produce lower-sodium products. Examples: Nestle or PepsiCo.

Macronutrients — category of nutrients that includes protein, carbohydrates, and fat.

Menu cycle — also called a cycle menu; a series of menus repeated over a specific time (e.g., weekly, monthly). The menu is different each day during the cycle. The menu is then repeated at the end of the cycle (e.g., school meal calendar).

Menu modification — changing the food items or frequency that food items are offered on a menu. Menu modification may involve replacing ingredients/products or altering recipes or meals to reduce sodium.

Nutrition analysis — process to determine the nutritional content of food, which can include measurements of sodium and macronutrients (e.g., fat, protein, and carbohydrates). This is often completed using a nutrition analysis software tool.

Nutritional guidelines — written recommendations implemented by institutions like schools and hospitals or food service organizations that outline the nutrition criteria food offered or served must meet. These are generally mandatory, whereas food services guidelines are recommendations or suggestions.

Pantry assessment — an inventory of food items at the organization or institution. The process often involves photographing all pantry items and collecting nutritional information, including sodium content, to conduct nutrition analyses. This assessment provides a cross-sectional assessment of the food ingredients that an institution has available in the pantry.

Procurement — process of soliciting food items, including lower-sodium foods, to purchase (e.g., the contracting process).

Product placement — where food items are placed in a food service setting, such as near the cash register.

Public health practitioners —individuals trained to conduct research and implement programs, policies, and practices to promote health and wellness in a community or population. Public health practitioners can work in a variety of settings, including state or local health departments, community-based organizations, hospitals, schools, and worksites.

Food purchasing contract — a document describing what food products a food service organization agrees to purchase from a distributor and at what quantity and price. Lower-sodium items can be included in the food purchasing contract.

Purchasing power — an individual or group's ability to buy a product at a discounted price. A large order of goods can convince a distributor to sell or create a product at a lower price. Institutions such as hospitals and schools can increase their purchasing power through group purchasing to demand development and sourcing of lower-sodium foods.

Reformulation — changing a recipe for a menu item or food product to improve the nutritional content of the food. Reformulation is a strategy used to reduce the sodium content in foods offered or sold by food service organizations. This process may involve replacing or altering ingredients or modifying how the item is cooked or prepared.

Salt — a food item (also known as table salt) that is comprised of a combination of two minerals—sodium and chloride—and is often added to meals or products to flavor and preserve foods.

Sodium — a mineral found in many foods that supports multiple functions in the human body, yet is often overconsumed, which can contribute to poor health outcomes.

Wait staff — individuals who serve food to patrons' tables or other location.

Wellness committee — a peer group of employees often a part of the institution or food service management organizations responsible for guiding efforts to promote health and wellness in their workplace. The group is usually led by a wellness coordinator who can serve as a champion for reducing sodium.

Definitions adapted from Partnering with Food Service to Reduce Sodium: A Toolkit for Public Health Practitioners,[1] Collective Purchasing of Food for Federal School Nutrition Programs,[2] Solving the Procurement Puzzle,[3] Smart Food Choices: How to Implement Food Service Guidelines in Public Facilities,[4] and Food Service Guidelines for Federal Facilities[5] Oregon Department of Education, Child Nutrition Programs.[6]

1

Overview

Purpose

The purpose of this guide is to assist food service staff and public health organizations reduce sodium in food service organizations by drawing upon the experiences gained during the Sodium Reduction in Communities Program (SRCP). SRCP was launched by the Centers for Disease Control and Prevention (CDC) in 2010 to reduce the sodium intake of Americans by helping to create healthier food environments.[7]

State and local health departments that received SRCP funding have worked with food service organizations to increase the availability and purchase of lower-sodium food options. Over the last 11 years, state and local health departments and their partner institutions tested multiple approaches to sodium reduction, and they identified four key strategies as the most effective and feasible:

1. Implementing food service guidelines and nutrition standards
2. Changing procurement practices
3. Making meal or menu modifications
4. Implementing environmental strategies or behavioral economics approaches

This guide provides information on how to implement activities related to each of these strategies. Food service staff, including registered dietitians, food service managers/directors, executive chefs, and food service line staff, can draw upon this guide to plan, implement, and maintain sodium reduction activities. This guide will help public health staff determine how to support partners in planning, implementing, and maintaining sodium reduction strategies to achieve lasting change.

Background

Average sodium intake in the United States vastly exceeds the recommended amount. The 2020–2025 Dietary Guidelines recommend that individuals consume no more than 2,300 mg/day,[8] yet individuals consume on average 3,393 mg/day. This is more than 1,000 mg over the daily recommendation.[9] In the United States, high sodium intake originates primarily from processed foods and foods prepared outside the home—sources that patrons have little control over.[10]

High sodium intake is associated with hypertension,[11] a common and costly health risk in the United States.[12] Even modest sodium reductions can lead to significant decreases in blood pressure and potentially lead to enormous savings both in lives and in dollars.[13,14] Food service organizations are well-positioned to help their patrons reduce sodium intake and ultimately improve patrons' health.

How Should This Guide Be Used?

Each section of this guide has information for food service organization staff, as well as information to help public health practitioners collaborate with food service organizations. Headers indicate information appropriate for each audience.

Food service organization staff may wish to review the guide from beginning to end with special focus on the four sodium reduction strategies (Section 2) and the different types of sodium reduction activities and the steps needed to implement them (Section 3). This may stimulate thinking about which activities are feasible. To finalize the decision, Section 3 offers approaches for thinking through resources needed to move forward.

Public health practitioners may wish to review the guide from beginning to end. When reviewing the four strategies (Section 2), public health practitioners may consider potential partners for implementing sodium reduction activities. Although the guide focuses on how food service organizations can implement these strategies, each section has information that public health practitioners can use when collaborating with their implementing partners.

When reading through this guide, please keep the following suggestions in mind:

- Use resources and tools when practical. This guide provides sample resources, tools and links to resources and tools. Resources include links to organization-specific implementation guides and stories as well as how-to webinars. Tools include sample templates (e.g., Organizational Resource Gap Analysis worksheet, Action Plan template) and links to assessment tools (e.g., Sodium Reduction: Assessment to Action Tool; and Nutrition Environment Measures Survey [NEMS]). Choose those that are most useful.
- Adapt guidance, tools, and resources as needed. Tools, templates, and other resources found in this guide can be modified to fit users' unique context.
- Be flexible. Planning and implementation require flexibility to adapt to changing circumstances.

2 Sodium Reduction Strategies for Cafeteria and Non-cafeteria Settings

Strategies and Associated Activities At-a-Glance

Strategy 1: Implement food service guidelines or standards that include sodium

- Implement sodium standards or guidelines

Strategy 2: Implement procurement practices to reduce sodium content in purchased food

- Purchase lower-sodium products
- Implement farm-to-school/institution programs
- Work with food suppliers to formulate new lower-sodium products

Strategy 3: Implement meal or menu modifications to reduce sodium content

- Change recipes/menus
- Replace ingredients or products
- Modify condiments
- Modify portion sizes

Strategy 4: Implement environmental strategies or behavioral economic approaches

- Use product placement strategies to encourage purchase of lower-sodium foods (vending)
- Use product placement to encourage purchase of lower-sodium foods or modify appearance of healthy foods (non-vending)
- Market improved nutrition standards and availability of lower-sodium products
- Use pricing strategies

This section describes the four key sodium reduction strategies and provides examples from cafeteria and non-cafeteria settings. Because cafeteria and non-cafeteria settings differ in the way that they distribute food, the four sodium reduction strategies also vary in how they are applied to each setting. For example, cafeteria settings might focus more on meal and menu modifications to reduce sodium content, as their meals may be prepared in-house.[1] Non-cafeteria settings might focus more on implementing procurement practices to reduce sodium in purchased food items, as their items are often premade.

Cafeteria Settings

- Cafeteria settings are dining areas in which patrons serve themselves or receive their food from food service line staff or wait staff. Meals can be sold or served at no cost (e.g., congregate meal programs). Within this implementation guide, cafeteria settings also include restaurants and can be in organizations such as worksites, hospitals, and schools.

Non-cafeteria Food

- Non-cafeteria settings are organizations that sell or distribute food but do not have sit-down areas for their patrons to eat. Non-cafeteria settings include food banks, gift shops, and vending machines.

[1] Of note, there are differences between contracted and self-operated cafeteria settings. Contracted cafeteria settings (e.g., Aramark) may have more difficulty making menu changes in individual settings because they have multi-year contracts. Self-operated cafeterias may have more flexibility and autonomy to make changes locally.

Strategy 1: Implement food service guidelines or standards that include sodium

Food service guidelines are a set of recommendations based on nutrition sciences that make healthier choices more accessible within food service organizations (e.g. Food Service Guidelines for Federal Facilities). In contrast, food service standards are mandatory specifications, generally required by governing bodies. Identifying and developing guidelines or standards for sodium reduction involves setting thresholds for sodium levels within meals or items served.

Examples of guidelines include establishing a maximum sodium level in purchased food, specifying the types of food that can be served or sold (e.g., healthier options such as frozen food over canned food, etc.), or creating monitoring and compliance plans to ensure that practices are sustained. Food service organizations that are interested in sodium reduction efforts may want to develop their own sodium reduction guidelines for several reasons: 1) federal or state guidelines are not always generalizable to all food service organizations; 2) food service organizations can tailor guidelines around specific sodium reduction goals; and 3) establishing guidelines help food service organizations become accountable to their goals for health. This strategy is well suited for both cafeteria and non-cafeteria settings.

Stories from the Field

Cafeteria Setting

- In 2018, the Children's Hospital Los Angeles (CHLA) worked with the Los Angeles County Department of Public Health (LACDPH) to develop and adopt a Nutritional Food Standards policy to increase access to healthier food available to employees, patients and their families for patient meals, cafeterias, and vending machines. The policy included sodium limits for food purchased and sold/served, as well as product placement and promotional strategies. CHLA completed a baseline environmental assessment to learn about the needs of each food setting in terms of sodium reduction and provided a summary report to key staff (i.e., wellness coordinator and food service director). This report outlined CHLA's adherence to the LACDPH recommended nutrition standards as a guide to track progress with implementing the policy. Using the summary report, the hospital adapted their previous nutrition standards to address sodium by reducing portion sizes of existing foods, creating recommendations for sodium reduction, and expanding the availability of healthy foods.

Non-Cafeteria Setting

- The Seattle King County Food Coalition (SKCFC) helped local food banks adopt nutrition guidelines starting in 2018. SKCFC provided worksheets to aid food banks in planning how to implement a nutrition policy. Tailored to align with the coalition's guidelines, these worksheets included detailed methods that would help food banks reach their nutrition goals, including reallocating funds to procurement of foods that meet the standards; updating procurement policies to consider nutritional value in addition to cost; and establishing relationships with a local grower.

Strategy 2: Implement procurement practices to reduce sodium content in purchased food

Food service organizations can decrease the amount of sodium in their served/sold foods by procuring lower-sodium ingredients. This strategy involves identifying and ordering lower-sodium products. Many food service organizations use food distributors to supply the majority of their ingredients. Swapping higher-sodium items with lower-sodium options allows organizations to incorporate similar ingredients into existing and new recipes. Activities for procurement practices to reduce sodium include implementing farm-to-schools/institutions programs and working with food suppliers to formulate new lower-sodium products. Non-cafeteria settings, such as food banks and gift shops, may need to focus on procuring premade, lower-sodium products. Changing food procurement practices to include lower-sodium products may also be more feasible than changing meals or menus (Strategy 3) for food service organizations with tighter budgets because of equipment or staffing limitations.

Stories from the Field

Cafeteria Setting

- The Oregon Department of Corrections (DOC) made strides in reducing the sodium content of items procured and offered through procurement practices and formulation of new lower-sodium products. Using the Sodium Practices Assessment Tool (SPAT) to analyze its menu cycles and recipes for sodium content, DOC identified and replaced recipe ingredients that contributed the most sodium. For example, the DOC purchased cheese slices, deli-meat, and bread that were all lower in sodium than the current offerings. DOC also continues to identify additional lower-sodium products and assesses feasibility of procurement based on the ability of distributors to meet volume needs and costs.

Non-Cafeteria Setting

- At many food banks, higher sodium food items often come from donations rather than from purchasing from distributors. The 12 food banks within the South King County Food Coalition (SKCFC) focused their efforts on changing procurement practices away from donations to reduce sodium. SKCFC established Elk Run Farm, a farm that grows and distributes fresh fruits and vegetables to all twelve of its food banks. Elk Run Farm locally grows over 35 different kinds of fresh fruits and vegetables and provides SKCFC with 10,000 lbs. of produce each year.

Strategy 3: Implement meal or menu modifications to reduce sodium content

This strategy focuses on developing new recipes or modifying existing recipes to reduce the sodium content of meals and menu items offered in food service organizations. In some cases, one or more ingredients can be substituted with a lower-sodium ingredient, but in others, the entire menu item may need to be replaced. This strategy often requires reviews of recipes, nutritional analyses, and working with culinary staff or outside culinary organizations to develop new recipes and identify which items need to be created. Many food service organizations may also need to provide technical culinary training to staff on food preparation techniques, such as limiting free-salting during preparation or rinsing canned beans. Activities for this strategy include changing recipes and menus, procuring ingredients or products with lower-sodium alternatives, making condiments and sauces in-house, and reducing portion sizes. This strategy will be most effective in food service organizations with cafeteria settings, such as restaurants, schools, or worksites because it requires modification of recipes. Non-cafeteria settings typically offer premade foods.

Stories from the Field

Cafeteria Setting

- The Greater Philadelphia Restaurant Association worked to decrease the amount of sodium in meals within the Asian restaurant community. Participating Asian buffet restaurants attended trainings on nutrition education and sodium reduction strategies led by professional culinary staff. These restaurants employed techniques such as decreasing the amount of high-sodium sauces in dishes, reducing the amount of table salt in dishes, replacing canned vegetables with fresh or frozen vegetables, and using in-house broth made with no added salt instead of prepared broth.

Non-Cafeteria Setting

- Good Shepherd Food Bank of Maine (GSFB) distributes purchased and donated food to food pantries, soup kitchens, youth programs, and emergency shelters. GSFB altered their menu offerings to reduce sodium content. They swapped out eight of 15 food items that are regularly purchased in bulk by the food pantries and offered them lower-sodium alternatives. Some items were replaced with lower-sodium versions of the same product, like substituting peanut butter with no-salt-added peanut butter. In other instances, the products were replaced by a similar lower-sodium alternative, like substituting lower-sodium vegetable broth for beef broth. The overall sodium reduction totaled 53% across the eight products.

Strategy 4: Implement environmental strategies or behavioral economic approaches

Food service organizations can promote lower-sodium foods through the implementation of environmental strategies and/or behavioral economic approaches. These approaches involve modifying physical and social environments to encourage the selection and purchase of lower-sodium foods. Environmental strategies make changes to a physical space. For example, the strategic placement of healthier food options is an environmental strategy used to encourage the purchase of those healthier items. Behavioral economic approaches blend human psychology with economics to influence the decision-making of an individual. For example, competitively pricing healthier options is a behavioral economic approach intended to incentivize the purchase of those healthier options. Activities in this strategy include using pricing strategies such as decreasing the price of lower-sodium products, using product placement strategies such as placing lower-sodium food at registers or putting lower-sodium foods at eye level, and marketing improved nutrition standards and availability of lower-sodium products. These strategies can be readily implemented in cafeteria and non-cafeteria settings.

Stories from the Field

Cafeteria Setting

- Because of limited budgets of congregate meal sites, many organizations focused their sodium reduction efforts on developing behavioral economic strategies that educate chefs and program coordinators on nutrition and sodium. Congregate meal sites in Arkansas hung posters in their kitchens to provide resources for staff on how to cook with less sodium. Educational materials included a "Shake the Habit" poster that featured spice options for different proteins and vegetables, a "Too Much Salt" poster, and a "High Blood Pressure Worldwide" poster. Some congregate meals also included individual spice shakers on tabletops to enable people to add flavor without adding salt to their meals.

Non-Cafeteria Setting

- Public Health Seattle King County (PHSKC) worked with twelve food banks in a Healthy Food Environments project that helped locations make changes to their service layout. Using one-on-one meetings with food banks, PHSKC helped educate workers on behavioral economics principles and think of ways to apply them in their own unique settings. Many food banks changed their layout and flow to operate more like a grocery store, while others focused on improving the visibility of lower-sodium foods (e.g., lighting and placement), convenience, and abundance (e.g., offering more produce/healthy food options). All the food banks also employ other environmental and behavioral economic approaches including "Rinse to Reduce" posters, can toppers, and shelf labels with sodium reduction messaging.

3 Planning and Implementing Strategies

Phase 1: Review the Strategies

This section describes the six phases for planning and implementing sodium reduction strategies for cafeteria and non-cafeteria settings (**Exhibit 3.1**).

Reviewing the sodium reduction strategies in Section 2 will provide an initial idea of which methods may be the best fit for the organization. Choosing the "right" strategy/strategies will depend on the organization's goals, available resources, existing workflow, and staff and leadership's readiness/willingness to make changes.

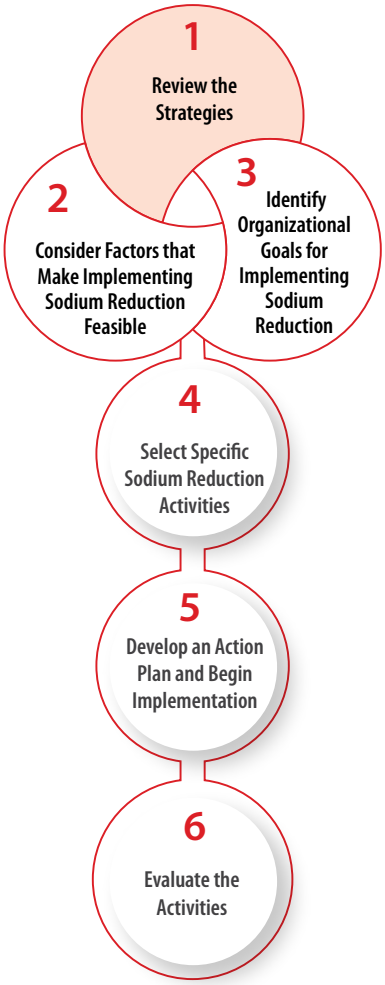
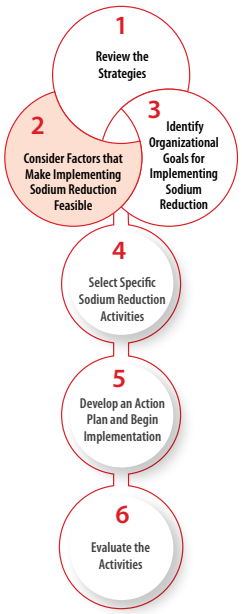


Exhibit 3.1 Sodium Reduction Implementation Phases



Phase 2: Consider Factors that Make Implementing Sodium Reduction Feasible

This phase focuses on identifying and describing factors that are outside of a food service organization's control and may affect implementation of sodium reduction strategies. This section describes considerations for food service organizations and public health practitioners.

Considerations for Food Service Organizations

In this phase, food service staff identify their resources and infrastructure; patron needs; relationships with food manufacturers or distributors; and policies that could affect the implementation of sodium reduction strategies. This phase will likely require food service staff to talk with their organizational leaders, patrons, and potential partners to gather information.

Exhibit 3.2 lists example questions and where subsequent answers could be found. After gathering information, consider which factors need to be addressed before implementing the strategy. If an existing policy, for example, prevents making changes, then moving forward may not be feasible.

Exhibit 3.2. General Considerations for Food Service Organizations and Where to Get Information

Information to Assess	
Resources and infrastructure	**Questions to Consider** • Is there an individual/team available to implement sodium reduction strategies? • Is the organization able to include lower-sodium food procurement in existing contract language? • What knowledge and experience do food service staff have related to sodium reduction (e.g., culinary skills, knowledge of how to maintain flavor while reducing sodium, understanding of purchasing contracts, knowledge of patron preferences, etc.)? • What knowledge do food service staff have on the health impacts of sodium reduction? • What relationships do staff have with food distributors, manufacturers, and farmers/growers? • Which staff could serve as liaisons to food distributors, manufacturers, and farmers/growers? • Does the organization have the physical space to display lower-sodium foods? • Does the organization have the equipment to prepare lower-sodium foods? • Does the organization have the financial resources needed to implement sodium reduction strategies? **Where to Get Information** • Conversations with organizational leaders and key staff who could be involved in sodium reduction (e.g., kitchen staff, procurement staff) • Conversations with financial managers within the organization

Exhibit 3.2. General Considerations for Food Service Organizations and Where to Get Information

Information to Assess	
Patron needs	**Questions to Consider** • Who are the patrons (e.g., students, older adults, the general public, etc.)? • What are the patrons' nutritional needs or concerns? • Are the patrons interested in healthy eating and sodium reduction? • What are patrons' food preferences? • How might cultural practices of patron populations influence food preferences? **Where to Get Information** • Conversations with food service line staff • Conversations with patrons or patron surveys • Hospital or health department's community health needs assessment
Relationships with external food manufacturers, food distributors	**Questions to Consider** • Is there an established relationship with the food manufacturers and distributors, or does that relationship need to be built? • Do manufacturers, distributors have a point person willing to work with the organization, or does one need to be identified? • What data or information is needed from external manufacturers, distributors (e.g., lower-sodium product lists, etc.)? **Where to Get Information** • Conversations with food manufacturers, distributors
Policies (e.g., federal nutrition guidelines, school nutrition guidelines, state and local government procurement policies or contracts, food donation guidelines)	**Questions to Consider** • What standards in federal food service guidelines are relevant to your goals? • What state and local policies may affect your ability to implement changes (e.g., menu labeling)? • Are there state, district, or other purchasing requirements (e.g., is the state or district in a cooperative purchasing agreement)? • Are there external purchasing timelines (e.g., placing orders across school districts, etc.)? Can purchasing contracts be modified to include lower-sodium products? **Where to Get Information** • HHS & USDA Dietary Guidelines for Americans • Food Service Guidelines for Federal Facilities • FDA Guidance for Industry: Voluntary Sodium Reduction Goals • Conversations with contracts and procurement staff • Federal and state procurement policies (e.g., search online for "[state] board of education child nutrition procurement" or "[state] government food procurement policies")

TIP

When selecting and engaging a food distributor, consider whether the distributor can provide a detailed product list that includes nutrition information—including sodium content—for each of its products. Without this information, food service staff cannot determine which products have less sodium or meet lower-sodium guidelines.

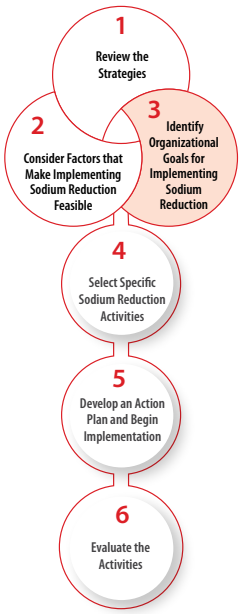
Considerations for Public Health Practitioners

Public health practitioners can support sodium reduction planning efforts by assessing food service organizations' readiness to implement changes. Key factors that can inform a food service organization's readiness to make changes include the following:

- **Staff Capacity:** Staff capacity is the availability, knowledge, and experience of staff who will be involved in or affected by implementation of sodium reduction strategies. Having adequate staff capacity means that an organization has enough full- and/or part-time employees with the necessary skills and experience to competently implement and maintain sodium reduction efforts.
- **Leadership Support:** Organizational leaders can include executive leaders, middle management, supervisors, and team leaders who have a direct or indirect influence on implementation. For an organization to succeed, leaders must demonstrate their commitment to sodium reduction, which may include attending meetings and allocating staff time, space, and funding.[2]
- **Champions:** Champions may emerge in different roles, from leadership to food service line staff, and may be either formal (e.g., a designated staff member whose primary focus is on healthy eating or sodium reduction) or informal (e.g., a staff member who dedicates themselves to supporting the efforts). Champions build and maintain momentum for sodium reduction by gaining support from organizational leaders and colleagues for the intervention, overcoming resistance to changes, and collaboratively solving problems.[3]
- **Financial Resources:** The amount of money an organization is willing to contribute to sodium reduction efforts will likely vary depending on the intervention chosen, but an organization may need to contribute some portion of its budget toward sodium reduction. Funding may also be pursued from external sources.
- **Infrastructure:** Infrastructure refers to the material resources, such as space and equipment, that are available to support sodium reduction. Infrastructure needs will vary depending on the intervention chosen. Food service organizations must be aware of which resources are available and which may need to be purchased or provided by external partners.

Appendix A provides information for public health practitioners to consider when partnering with food service organizations to implement sodium reduction strategies, including how to assess food service organizational resources and resource gaps.

[2]Definition adapted and expanded from the Consolidated Framework for Implementation Research: https://cfirguide.org/constructs/leadership-engagement/
[3]Definition adapted and expanded from the Consolidated Framework for Implementation Research: https://cfirguide.org/constructs/champions/



Phase 3: Identify Organizational Goals for Implementing Sodium Reduction

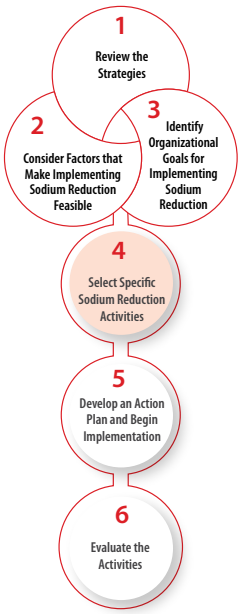
Food service organizations must consider their organizational goals for sodium reduction. Accurately defining sodium reduction goals can help one decide which of the sodium reduction strategies are best for the organization to implement. An organization's sodium reduction goals may vary based on the type of food service organization (i.e., cafeteria vs. non-cafeteria setting). For example, organizations serving congregate meals may want to focus on reducing the average amount of sodium in each meal, whereas non-cafeteria settings may want to focus on offering more lower-sodium items.[4] **Exhibit 3.3** lists example questions to help determine organizational goals and where to find information to answer those questions.

Exhibit 3.3. Aspects of Organizational Goals for Food Service Organizations to Consider and Where to Get Information

Information to Assess	
Goals	**Questions to Consider** • Why would the organization implement sodium reduction strategies (e.g., to comply with state or federal guidelines, internal directive, patron preferences)? • What are the organization's goals related to sodium reduction (e.g., to find cost-neutral lower-sodium substitutions that will not affect the bottom line)? • Do organizational leaders consider sodium reduction a priority? • Does the organization have a written policy or guidelines that promote sodium reduction or healthy food procurement? • How are the organization's sodium reduction goals being communicated to staff? • Do staff who may be involved in sodium reduction have a clear understanding of the organization's sodium reduction goals? **Where to Get Information** • Conversations with organizational leaders and key staff who could be involved in sodium reduction (e.g., kitchen staff, procurement staff)

[4]Definition adapted and expanded from the Consolidated Framework for Implementation Research: https://cfirguide.org/constructs/goals-and-feedback/

Phase 4: Select Specific Sodium Reduction Activities



Each of the sodium reduction strategies has activities with different steps that may require unique resources, tools, and staff expertise. Using the information gathered in Phases 2 and 3, the food service organization considers which specific sodium reduction activity to pursue. **Exhibit 3.4** provides basic requirements for each sodium reduction strategy. Organizations will have additional considerations when selecting a sodium reduction strategy, but these basic requirements must be met for a strategy to be selected.

Exhibit 3.4. Basic Requirement for each Sodium Reduction Strategy

Sodium Reduction Strategy	Basic Requirements
Implement food service guidelines or standards that include sodium	• Organizational structure that includes policies and procedures
Implement procurement standards (or specifications) and practices	• Use of procurement practices to supply food service
Implement meal or menu modifications	• Food preparation infrastructure
Implement environmental strategies or behavioral economic approaches	• Food display and/or marketing infrastructure

The tables throughout this section outline the implementation steps, suggested tools and resources, and key roles to include in the activity. The implementation steps provide general guidance on how to do the activity but can be customized. The suggested tools and resources were recommended by food service organizations and public health practitioners and support program planning and implementation. Some tools and resources may also support program evaluation when used to conduct baseline and follow-up assessments. Finally, the key roles column identifies the types of individuals that are useful to involve in the planning and implementation of the activity.

Appendix B presents real-world insights and lessons learned applicable to implementing all strategies. This appendix first presents lessons learned specific to food service organizations followed by lessons learned for public health practitioners.

1 Strategy 1: Implement food service guidelines and standards that include sodium

Strategy 1 has one activity (**Exhibit 3.5**), which begins with identifying existing guidelines or standards and altering or designing new guidelines. If there are existing guidelines or regulations for food standards (e.g., National School Lunch Program), the food service organization may need to reconcile legal regulations with any new guidelines staff hope to create (with an eye towards ensuring that legal requirements are satisfied). If no guidelines or standards exist, food service organizations and their public health partners may need to tailor guidelines to the organization based on feasibility.

Suggested settings to implement nutrition standards or guidelines include:

- Hospitals
- Universities
- Early childhood education (ECE) centers
- After-school programs
- Large worksite cafeterias
- Jails or prisons
- Parks and recreation agencies

Questions to keep in mind when selecting a sodium reduction activity:

- How feasible is it to implement this activity?
- How willing are staff to support the activity?
- Are there sufficient resources (e.g., staffing, leadership support, funding, equipment) for the activity?
- How will implementing this activity affect revenue?

Exhibit 3.5 Implement Sodium Standards or Guidelines

Activity Summary: This activity entails establishing guidelines or implementing existing sodium standards in a food service organization. Doing so provides organizational supports for routinely purchasing lower-sodium products and increasing access and availability of lower-sodium products for patrons.

Implementation Steps

1. Identify existing standards or guidelines for a food service organization
2. Work with a registered dietitian to develop standards tailored to the population (if no guidelines or standard are available) or to coordinate and reconcile existing guidelines or standards
3. Determine which guidelines are feasible to implement (e.g., conduct environmental scan, use Appendix A tool)
4. Develop a list of implementation options that stakeholders can choose from
5. Share implementation options with leadership and stakeholders (e.g., food service line staff, etc.) and explain the health and financial rationale for implementing sodium reduction to them
6. Select standards (or a subset of standards) for implementation
7. Identify what gaps or training needs exist for option selected in Step 6
8. Document the standards and provide guidance on procurement to staff involved in purchasing and food preparation. (Embed in procurement contracts when possible, See Strategy 2, Activity 1)
9. Create an action plan and timeline
10. Monitor adherence to guidelines (provide training as necessary) about 6 months after initial implementation

Suggested Tools & Resources

- Dietary Guidelines for Americans 2020–2025
- Environmental scan tool (e.g., Nutrition Environment Measures Survey [NEMS])
- Food Service Guidelines: Case Studies from States and Communities
- Healthy Nutrition Guidelines: Implementation Guide for Cafeterias, Washington State Department of Health
- Food Service Guidelines Implementation Toolkit

Key Roles

- Distributor
- Registered dietitian
- Food service director/manager
- Food service purchasing staff
- Food service line staff

Strategy 1

Public Health Practitioner Lessons Learned: Implementing Nutrition Guidelines in Hospitals and Universities

Story from the Field	Key Lessons Learned
When designing nutritional standards for hospitals and universities, the Los Angeles County Department of Public Health (LACDPH) developed standards based on a national scan of existing nutrition standards (e.g., CDC's Food Service Guidelines, etc.). LACDPH's standards include both nutrient and food-composition based guidelines that are easy to operationalize and evaluate. A chef from a culinary institute reviewed the guidelines. This consultation helped LACDPH revise the language within the existing standards so that it was speaking the language of the food industry and could be understood, applied, and evaluated successfully by an executive chef or food service director at an institution.	• Tailor guidelines to the organization • Translate public health language into terms and definitions that are able to be understood and operationalized by the individual(s) implementing the standards, often the executive chef or food service director

2 Strategy 2: Implement procurement standards (or specifications) and practices

Strategy 2 has three activities: (1) purchase lower-sodium products (**Exhibit 3.6**), (2) implement farm-to-school/institution programs (**Exhibit 3.7**), and (3) formulate new lower-sodium products (**Exhibit 3.8**). External partners are particularly important for implementing this strategy, and most activities require effective communication with stakeholders, such as distributors, manufacturers, or local farmers/growers.

Suggested settings for implementing activities under Strategy 2 include:

- County and city department cafeterias
- ECE centers
- Hospitals
- Senior centers
- Schools

Exhibit 3.6 Purchase Lower-Sodium Products

Activity Summary: This activity involves creating guidance, recommendations, or rules to ensure that the food service organization (or other groups within an organization) build the purchase of lower-sodium products into procurement processes or contracts.

Implementation Steps

1. Identify existing procurement standards that can serve as a model (e.g., New York City's Good Choice Standards)
2. Identify and document higher-sodium items that have lower-sodium substitutions by working with a registered dietitian who can review distributor product lists and current products purchased, conduct a pantry assessment, and/or conduct nutrient analysis of recipes
3. Meet with internal leaders and staff from other agencies to gain buy-in (e.g., if making contracting changes that affect multiple agencies or departments, engage leaders in those agencies or departments)
4. Develop guidelines and contract language for procurement (government agencies also have internal processes for developing and disseminating Request for Proposals (RFPs) that should be followed)
5. Meet with distributor(s) to discuss options for lower-sodium products (if a distributor is not available, review distributor catalog and purchasing website)
6. Obtain samples of the lower-sodium products and conduct taste tests with patrons to ensure acceptability
7. Develop and implement an action plan for monitoring implementation and compliance

Suggested Tools & Resources

- Assessment and action planning tool (e.g., Sodium Reduction: Assessment to Action Tools)
- A Strategy Worth Its Salt: Group Purchasing to Supply Lower-Sodium Foods & Reduce Food Costs
- 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

Key Roles

- Food service manager/ director
- Food service purchasing staff (if a director is not responsible for purchasing)
- Distributor
- Group purchasing organizations
- Other agencies or departments (if affected by changes or if involving other groups will help increase buying power)

Exhibit 3.7 Implement Farm-to-School/Institution Programs

Activity Summary: This activity centers on increasing access and availability of fresh produce, which is naturally lower in sodium, by connecting local growers with schools or other institutions.

Implementation Steps

1. Identify standards or guidelines for farm-to-school/institution, including nutrition and food safety
2. Engage nutrition or food service director to explain the value of using more fresh produce and walk them through the procurement process (if the implementer is not the person responsible for nutrition services at the organization)
3. Conduct assessments (e.g., pantry assessment) to estimate potential needs for particular types of produce based on population served
4. Identify meals, sides, or recipes that incorporate and highlight fresh produce (and plan potential menus) and identify whether new equipment or training is needed for using fresh produce
5. Identify local farmers/growers with adequate production and who can meet food safety standards (e.g., can use cooperative extension, farmers market manager)
6. Engage farmers/growers to discuss availability and seasonality of produce (done each growing season) and create a list of available produce from each farmers/growers
7. Implement small pilot procurement with a local farmer/grower
8. Develop contract for farmers/growers (if appropriate)
9. Gather feedback from patrons, procurement staff, farmers/growers (e.g., taste-tests of recipes, staff/patron survey, etc.) and revise based on stakeholder feedback
10. Obtain equipment
11. Train staff on processing/preparing fresh produce
12. Develop recipes or alter existing ones to incorporate fresh produce in institutional/cycle menu

Suggested Tools & Resources

- Environmental scan tool (e.g., NEMS)

Key Roles

- Farmers/growers
- Food service director/manager
- Food service line staff
- External organization that can provide training and TA (e.g., public health department, university partner)
- Cooperative Extension and local farmers market managers

Exhibit 3.8 Formulate New Lower-Sodium Products

Activity Summary: This activity involves identifying a commonly used, higher-sodium food product for reformulation and working with a food scientist, chef, and manufacturer to develop and produce the new item.

Implementation Steps

1. Use menus to identify product(s) that are used across multiple menu items (and that do not have an existing lower-sodium option)
2. Identify a food scientist partner who can conduct a nutrient analysis, develop a new formulation of the product, and provide guidance on the commercial viability of the product(s)
3. Engage manufacturer and distributor (if not the same as the manufacturer) and explain the importance of (1) lower-sodium products to the organization and population and (2) the commercial viability of the product
4. Convene manufacturer, distributor, and food scientist to discuss which product is most feasible to change and still affordable to the organization
5. Revise formulation of the selected product (e.g., determine at what level the reduction in sodium is still palatable and still meets nutritional guidelines of specific organization)
6. Create a prototype of the product
7. Work with a food manufacturer to conduct sensory test of a prototype (e.g., texture, smell, taste) and revise formulation, if needed
8. Conduct taste-test to gather data from a broad range of patrons to ensure palatability and potential demand for the product (revise formulation, if needed)
9. Adopt and market the new product
10. Implement procurement procedures (see Exhibit 3-6)

Suggested Tools & Resources

- Environmental scan tool (e.g., NEMS)

Key Roles

- Registered dietitian
- Food scientist or research chef
- Manufacturer
- Distributor (if not same as the manufacturer)
- Marketing team

Strategy 2

Food Service Organization Lesson Learned: Reformulating Nacho Cheese

Story from the Field	Key Lessons Learned
School nutrition staff in Oregon reviewed school menus and obtained food service line staff input to determine which food item to reformulate. By examining how often food items were served and by speaking with staff, the school identified that reformulating nacho cheese would have a maximum impact because of its use in multiple recipes and popularity among the students. Additionally, nutritional software helped to compare sodium levels per serving of reformulated products. The food service team gained the buy-in of students by leveraging the strong relationship between students and food service line staff who encouraged consumption of the new product and student participation in sensory testing of the reformulated product.	• Gain the support of food service line staff. Food service line staff can share their observations about which items they use the most, and because they interact with students, they can encourage students to try new foods. In ECE centers, teachers, as well as food service line staff, play an important role in convincing students to try new, lower-sodium foods • Draw on the expertise of registered dietitians, public health analysts, and food service directors when conducting a nutrient analysis • When choosing an item to reformulate, examine menus to determine commonly used items across the menu. To avoid food waste, use the existing stock of the higher-sodium product before introducing the new reformulated item • Use resources such as nutritional analysis software to examine how much sodium is reduced in the reformulated product • Seek patron feedback (e.g., conduct taste tests, etc.)

Food Service Organization Lesson Learned: Working with Food Donors and a Community Garden

Story from the Field	Key Lessons Learned
A charitable food organization (CFO) in Arkansas that had a community garden developed corporate partnerships (e.g., Wal-Mart, Sam's Club) and implemented nutritional guidelines to encourage donations of healthy items. Because the CFO mainly operated from donations rather than purchased items, the nutritional guidelines encouraged donors to provide lower-sodium products as part of their donations. The CFO provided guidance on how to reduce sodium in the meals that CFO staff and volunteers prepared, such as rinsing canned beans before using them and using produce from the community garden. To further incorporate lower-sodium items like fresh produce, the community garden staff engaged in frequent communication with the CFO chef on which crops were available each week.	• Learn whether local organizations would be willing to donate fresh fruits and vegetables. Partnering with them may increase access to healthy foods while reducing cost • Offer education to food donors regarding lower-sodium options to encourage lower-sodium donations • Communicate frequently with individuals supplying and preparing food to increase awareness on sodium-reduction strategies

3 Strategy 3: Implement meal or menu modifications

Strategy 3 has three activities: (1) change recipes or menus (**Exhibit 3.9**), (2) replace ingredients or products (**Exhibit 3.10**), and (3) modify portion sizes (**Exhibit 3.11**). These activities rely on engaging food service directors or managers, food service line staff, registered dietitians, chefs, and distributors to identify products to change and provide training to food service line staff. Activities in this strategy may overlap.

Suggested settings for implementing activities under Strategy 3 include:

- Independent restaurants
- Universities
- Government worksites
- Hospitals
- City agencies
- Senior centers
- Schools
- ECE centers
- Other large cafeteria sites

Exhibit 3.9 Change Recipes or Menus

Activity Summary: This activity involves adapting existing recipes or menu items to reduce the sodium content of specific items. This activity could involve substituting higher-sodium ingredients with lower-sodium ingredients to reduce the overall sodium content of a recipe or substituting higher-sodium menu items with lower-sodium items.

Implementation Steps

1. Conduct a baseline assessment (i.e., pantry assessment, menu review, recipe/nutrition information analysis) to identify opportunities to adjust high sodium menu items
2. Conduct a nutritional analysis of recipes
3. Identify higher-sodium recipes or menu items to replace
4. Work with chef/registered dietitian to develop or revise recipes or identify replacement menu items
5. Work with distributor or broker to identify appropriate products for recipes or menu items
6. Assess the cost effectiveness of selected products
7. Conduct taste-tests with patrons and revise recipes or menu item choices, if needed
8. Replace higher-sodium recipes or menu items
9. Train food service line staff on new lower-sodium recipes or menu items (i.e., standardize recipes) and how to properly measure salt
10. Offer marketing promotions or incentives to patrons for trying new lower-sodium meal items (optional)

Suggested Tools & Resources

- Environmental scan tool (e.g., NEMS, Healthy Hospital Food and Beverage Environment Scan, etc.)
- Assessment and action planning tool (e.g., Sodium Reduction: Assessment to Action Tools; SPAT, etc.)
- How Sodium Savvy Is Your Food Service and Sodium Savvy Food Service Tips
- Restaurant Guide: Cut the Sodium but Keep the Flavor, California Department of Public Health

Key Roles

- Food service director or manager
- Food service purchasing staff (if not director or manager)
- Food service line staff
- Registered dietitian
- Chef (or organization with culinary expertise, such as culinary institutes)
- Distributor (or their brokers and salespeople)

Exhibit 3.10 Replace Ingredients or Products

Activity Summary: This activity involves replacing higher-sodium ingredients or products with lower-sodium ingredients or products. Food service organizations may need to collaborate with kitchen staff to ensure lower-sodium recipes maintain their flavor and/or with patrons when replacing higher-sodium products with lower-sodium alternatives.

Implementation Steps

1. Conduct a baseline assessment (e.g., pantry assessment and nutritional analysis) of recipe ingredients or products that are higher in sodium
2. Identify the top 10 ingredients with the highest levels of sodium and products used in multiple recipes (e.g., tomato sauce, chicken broth, salad dressing)
3. Identify potential food items to replace on the top 10 list and find replacement items based on what is available (e.g., using frozen versus canned, eliminating mayo-based salads)
4. Engage stakeholders (e.g., staff and leadership and patrons) to gauge interest and discuss making changes to ingredients and products
5. Learn what products are available to replace higher-sodium items by meeting with distributors, going to food shows, or reviewing catalog or purchasing website
6. Assemble and train a field team for taste test analysis for new product/ingredients
7. Purchase and replace ingredients or products
8. Provide technical assistance or train staff on using new products and ingredients in recipes
9. Educate patrons by giving them a free sample of the recipes, a copy of the recipe with nutrition facts, and the option to purchase it as a meal entrée
10. Collect feedback (e.g., patron surveys) for each new recipe or menu item and revise recipes or menu items, if needed
11. Make all sodium-adjusted recipes available to partner organizations and give them clear step-by-step guidance for how to best replicate the process

Suggested Tools & Resources

- Environmental scan tool (e.g., Healthy Hospital Food and Beverage Environment Scan; NEMS)
- Assessment and action planning tool (e.g., Sodium Reduction: Assessment to Action Tools; SPAT)
- List of distributor products that meet sodium and nutrition standards (compiled from researching the distributor)
- How Sodium Savvy Is Your Food Service and Sodium Savvy Food Service Tips
- Restaurant Guide: Cut the Sodium but Keep the Flavor, California Department of Public Health

Key Roles

- Chefs or culinary institute
- Registered dietitian
- Food service managers or directors
- Food service line staff
- Food service purchasing staff (if not manager or director)
- Distributors (or their brokers and salespeople)
- Manufacturers

Exhibit 3.11 Modify Portion Sizes

Activity Summary: This activity involves reducing portion sizes and/or portioning scoops to lower the sodium content of certain menu items. Food service organizations may need to collaborate with kitchen staff to ensure patrons are satisfied with modified meals.

Implementation Steps

1. Conduct a baseline assessment of portion sizes
2. Identify strategies to modify portion sizes (e.g., use thinner slices of bread, require portion control in the kitchen, offer higher-sodium menu items in smaller bowls, use portioning scoops/utensils)
3. Engage food service staff in determining strategies to modify portion sizes
4. Develop an action plan for implementing changes incrementally
5. Communicate the plan to organization leaders and staff
6. Train staff on implementing changes (e.g., standardizing portions)
7. Implement changes gradually
8. Conduct patron surveys
9. Monitor implementation of practices

Suggested Tools & Resources

- Environmental scan tool (e.g., NEMS, Healthy Hospital Food and Beverage Environment Scan)
- Assessment and action planning tool (e.g., Sodium Reduction: Assessment to Action Tools; SPAT)
- Restaurant Guide: Cut the Sodium but Keep the Flavor, California Department of Public Health

Key Roles

- Registered dietitian
- Food service director or manager
- Food service line staff

Strategy 3

Food Service Organization Lesson Learned: Revising a Pasta Menu Item

Story from the Field	Key Lessons Learned
A university in New York worked with food service staff to identify a higher-sodium, high-volume menu item (pasta) and revised the pasta's recipe to reduce its sodium content. The university food service staff unveiled the new pasta recipe as part of an educational event. At the event, a registered dietitian set up a table to educate students about sodium and offer blood pressure screenings. The university ran out of the new pasta option during the event due to its popularity.	• Offer promotions and incentives to patrons. For example, combine the introduction of a new menu item with an educational event

4 Strategy 4: Implement environmental strategies/behavioral economic approaches

Strategy 4 has four activities: (1) use product placement strategies to encourage the purchase of lower-sodium foods (vending; **Exhibit 3.12**), (2) use product placement strategies to encourage the purchase of lower-sodium foods or modify the appearance of healthy foods (non-vending; **Exhibit 3.13**), (3) market improved nutrition standards and availability of lower-sodium products (**Exhibit 3.14**), and (4) use pricing strategies (**Exhibit 3.15**). The activities in this strategy focus on using menu labeling, pricing, and product placement to promote the consumption of lower-sodium options already available.

Examples of settings where Strategy 4 activities may be implemented include:

- Hospitals
- Universities
- Schools
- Government worksites
- ECE centers
- Other worksites

Exhibit 3.12 Use Product Placement Strategies to Encourage Purchase of Lower-Sodium Foods (Vending)

Activity Summary: This activity involves procuring and strategically placing lower-sodium products in vending machines to encourage patrons to purchase lower-sodium items.

Implementation Steps

1. Review vending contract and insert language for offering products with lower-sodium options
2. Talk with distributor and people who have authority and decision power within the organization. Share evidence about the importance of reducing sodium and offering more lower-sodium options
3. Collaborate with distributor to educate individuals who stock the vending machines about new vending policies and practices, including proper product placement
4. Feature healthy options in the vending machines through product placement (e.g., placing lower-sodium food items at eye level) and promotion (e.g., use stickers to identify lower-sodium food items, make calorie labeling on beverage machines and healthy labeling on snack machines prominent and clear)
5. Provide close maintenance of the vending machines by having a designated person (e.g., food service contract manager, wellness coordinator) regularly check them
6. Survey patrons
7. Examine purchasing behavior and sales data

Suggested Tools & Resources

- Environmental scan tool (e.g., NEMS-V)

Key Roles

- Distributor
- Salespeople (if responsible for filling vending machine)
- Food service manager or director
- Food service purchasing staff (if not manager or director)
- Wellness coordinator

Exhibit 3.13 Use Product Placement Strategies to Encourage Purchase of Lower-Sodium Foods or Modify Appearance of Healthy Foods (Non-vending)

Activity Summary: This activity involves the use of behavioral economics to strategically place lower-sodium food items in ways that encourage patrons to purchase them.

Implementation Steps

1. Conduct an environmental assessment of food environment and food displays
2. Engage stakeholders (e.g., leadership, staff, and volunteers in partner organizations such as food service management companies) in assessment findings and making the case for environmental changes
3. Get technical assistance from public health partners (e.g., health department staff, market research analysts) if needed on behavioral economics (e.g., how to do floor plans and research supplies needed)
4. Determine equipment and infrastructure needs (e.g., shelving, lighting, refrigeration, etc.)
5. Generate new floor and stocking plans for highlighting lower-sodium options
6. Redesign space and enhance with signage and photos of lower-sodium foods
7. Prominently display lower-sodium options, such as whole fruit, at checkout
8. Insert practices into standard operating procedures and/or purchasing contracts
9. Train staff on making lower-sodium food display changes
10. Monitor changes to ensure foods are put in the proper place
11. Conduct observational assessment to estimate the number of patrons selecting lower-sodium options

Suggested Tools & Resources

- Environmental scan tool (e.g., NEMS)
- Planograms (e.g., free online tools, such as Smart Draw)

Key Roles

- Food service manager/director
- Food service line staff or volunteers responsible for food displays
- Technical assistance providers with expertise in behavioral economics
- Custodial staff

Exhibit 3.14 Market Improved Nutrition Standards and Availability of Lower-Sodium Products

Activity Summary: This activity involves developing and implementing a marketing strategy that encourages patrons to purchase lower-sodium products.

Implementation Steps

1. Review guidance for menu labeling in the organization (e.g., some states and counties require menu labeling by law)
   - If there are no regulations, engage a dietician or someone with nutritional expertise to develop guidance for the organization
   - If there are regulations, guidance can be put in place to enhance current regulations and to market lower-sodium products
2. Gain buy-in from staff and leadership on ways to market lower-sodium food options (e.g., taste-test events and one-on-one education, table tents, stickers on lower-sodium food items, flyers, etc.)
3. Discuss with staff and leadership the appropriateness, approach, and potential messaging for patrons
4. [For organizations that are part of a larger system (e.g., school districts, universities, hospitals, government agencies)] Connect with wellness teams and health committees to help market the availability of healthy foods and link to other health promotion activities in the organization
5. Contract a media firm or collaborate with a communications/graphics person within your organization to develop messaging and craft a dissemination plan (if needed and if resources allow)
6. Share draft messages and dissemination plan with leaders, staff, patrons, and partners for input (note: revise messages as needed)
7. Produce messages and content for dissemination

Suggested Tools & Resources

- Sodium Reduction: Talking Points for Public Health: Responding to Common Perceived Barriers among the Food Industry
- Smart Food Choices: How to Implement Food Service Guidelines in Public Facilities

Key Roles

- Marketing department
- Marketing consultant or media vendor (if needed and resources allow)
- Marketing staff from food service organization
- Registered dietitian or individuals involved in wellness activities (wellness coordinator, health advisory committee)

Exhibit 3.15 Use Pricing Strategies

Activity Summary: This activity involves developing pricing strategies that lower the cost of lower-sodium food items to encourage patrons to purchase lower-sodium food items.

Implementation Steps

1. Collect and analyze data of the current food promotion, placement, and pricing environment (note: analysis can be conducted on a subset of inventory)
2. Develop pricing and placement strategies to promote the sale of lower-sodium foods (e.g., pricing healthy food and beverages to be less expensive, pricing higher-sodium food and beverages to be more expensive, offering discounts or promotions for healthier food items, etc.)
3. Integrate pricing into new or renewing food service contracts
4. Collect sales data from organization and analyze pricing in addition to the volume of sales for certain items to measure the number of patrons selecting lower-sodium items
5. If no sales data are available, collect sales-mix data to estimate the quantity of items sold, conduct a cash register observational assessment or collect data via a sales purchase log to estimate the number of patrons selecting lower-sodium options

Suggested Tools & Resources

- Environmental scan tool (e.g., NEMS)
- Baseline assessment of the Food Environment

Key Roles

- Contract food services
- Food services purchasing staff
- Food service managers or directors
- Registered dietitian

Strategy 4

Public Health Practitioner Lessons Learned: Marketing Lower-Sodium Foods using Stealth-Health

Story from the Field	Key Lessons Learned
The Los Angeles County Department of Public Health (LACDPH) implemented a stealth-health marketing strategy, transitioning away from using public health language for marketing and instead focused on promoting visually appealing plant-forward meals. After consulting with a chef on their team and a culinary institute, LACDPH replaced their original promotional campaign about the hidden salt in products with promoting visually appealing and tasty vegetables and plant-based dishes that are naturally lower in sodium. LACDPH used simple messaging to drive patrons to delicious healthier foods rather than foods they should not consume. LACDPH's marketing initiatives also included having a staff member with graphic designer skills on the team and the development of a menu of toolkits and resources as part of the branded campaign that institutions can use or adapt to their unique setting.	• Focus marketing on making lower-sodium options more appealing rather than detailing what not to eat • Transition away from using standard public health–oriented language in marketing campaigns • Develop a dynamic marketing team. Include individuals with experience in the food service industry and in graphic design • Provide marketing resources and toolkits to support food service organizations implementing changes • Tailor marketing strategy to align with institution marketing policies and procedures. Different institutions (e.g., schools, universities) may have restrictions or approval processes, such as guidelines dictating branding and logos

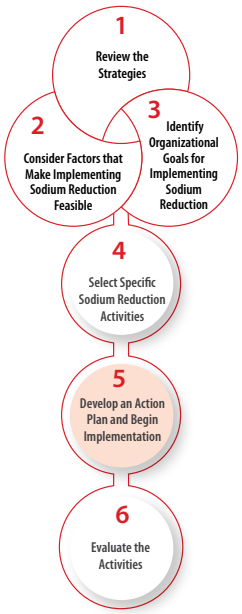
Phase 5: Develop an Action Plan and Begin Implementation

Food Service Organizations and Public Health Practitioners

After selecting the activity, an action plan can guide the tasks needed for each intervention step. The action plan does not have to be lengthy or complicated, but it should capture the roles of key individuals, the timeline for when tasks should be completed, and the resources needed to complete each task. A template for specifying each of these components of the action plan is depicted in **Exhibit 3.18**. For each activity step, the tool includes a place for the key individuals and organizations that need to be kept informed to prevent any barriers that might surface in carrying out that step.

Carrying out the action plan will depend on the organization, the context, and the available resources and other support available. The Organizational Resource Gap Analysis Worksheet and the suggested resources to consider in **Appendix A** can narrow down the resources needed for each step. Some implementation steps may require multiple tasks, whereas others may involve only a few.

When developing the action plan, convening all the individuals with key roles will ensure that they are actively engaged in and have ownership of the implementation steps from the beginning. From the beginning, share the action plan as part of regular meetings and communication. The action plan will help the team stay on task and address any barriers that may arise. Reviewing the action plan regularly will also help to track which individuals and organizations need to be informed about specific tasks.



Sodium Reduction: Action Plan Tools

Include an Action Plan Tool that can assist food service organizations and public health practitioners in prioritizing sodium reduction strategies.

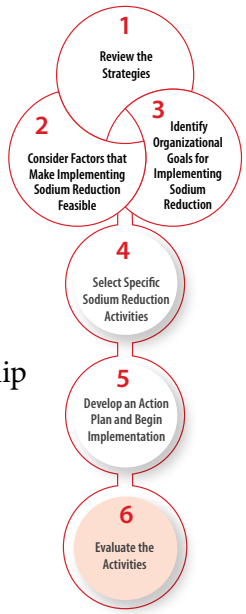
Users can complete the online tool to identify items to take action on immediately and items to take action on later based on the level of feasibility, resources, and support available.

Exhibit 3.16. Example Action Plan Template

Strategy: Implement Procurement Practices
Activity: Purchasing Lower-Sodium Products (Non-vending)

Implementation Step	By Whom	By When	Resources and Support Available (staff, leadership, funds, partners)		Communication	Status In-Progress, Completed, Delayed
What tasks need to be done to complete this step?	Who will carry out this task?	By what date will the task be completed?	What resources are available?	What additional resources are needed?	What individuals and organizations should be informed of this task?	What is the status of completing this task?
Step #1: Identify existing procurement standards (write in)						
1. Gather information on standards	Heather	3/1	Registered dietitian, online resources (USDA.gov, HHS.gov, FDA.gov)	None	Leadership, registered dietitian, food service managers	In progress
2. Review standards and determine which apply to the patron and setting	Karen, Heather	3/15	Registered dietitian	Patron demographic data	Leadership, registered dietitian, food service managers	In progress
Step #2: Identify higher-sodium items to replace (write in)						
1. Conduct a pantry assessment (food product inventory)	Ben	3/1	Pantry assessment tool, food service manager	None	Food service manager	Completed
2. Review distributor products and product availability	Ben	3/8	Registered dietitian, distributor product list	Nutritional information for product list	Distributor, food service purchasing staff	In progress
3. Conduct a nutritional analysis of current recipes	Laura	3/15	Registered dietitian staff to compile recipes	Nutritional analysis software/expertise	Food service manager, Registered dietitian	In progress

Adapted from the Community Tool Box's Developing an Action Plan, available at https://ctb.ku.edu/en/table-of-contents/structure/strategic-planning/develop-action-plans/main.



Phase 6: Evaluate the Activities

Evaluating sodium reduction activities enables food service organizations and their public health partners to understand how well activities were carried out, the barriers, facilitators, and lessons learned, and whether the organization achieved its goals for sodium reduction efforts. Phase 6 highlights how food service organizations can collect basic data to share with staff/leadership and how public health partners can design and implement more comprehensive evaluations to understand if activities were successful at various stages.

Evaluation for Food Service Organizations

Evaluating sodium reduction activities can benefit food service organizations by helping them learn what strategies resulted in changes and whether these changes made a difference to their patrons and bottom line. Food service organizations can undertake the following three actions to help determine what information to gather and how to use that information to make the case for sodium reduction efforts.

Action 1: Decide what questions are most important to answer. This involves having a clear idea of the goals for reducing sodium. Also important is paying attention to what information will be beneficial for food service staff and leadership to understand about the importance of sodium reduction efforts. For example, if the goal is to reduce sodium, improve patron satisfaction, and increase sales, then gathering information on the number of lower-sodium items available, patron satisfaction, and the number of lower-sodium items sold may be important. **Appendix C** includes common questions to guide learning about changes that resulted from sodium reduction efforts.

Action 2: Gather information to answer these questions. This action could include using information already gathered as part of implementing sodium reduction activities such as key informant interviews, surveys, taste tests, environmental scans, observational assessments, action plans, and sales data. Gathering information should happen more than once to capture improvements over time.

Action 3: Share what was learned. Find creative ways to disseminate results (e.g., infographics, Power Point slides, video clips) with food service organization staff and leaders via staff meetings, in company newsletters and reports, or company websites.

Evaluation for Public Health Practitioners

Public health practitioners can work with food service organizations to do more extensive evaluations to collect data that provides insight on successful implementation of sodium reduction activities. A comprehensive evaluation provides details about understanding the process and whether steps such as identifying higher-sodium items and training staff were implemented as planned. This type of evaluation can also provide information on specific outcomes and whether, for example, purchasing lower-sodium items had an impact on the sodium content of the food provided in that venue.

The following six actions are important components of implementing a comprehensive evaluation for sodium reduction activities:

Action 1: Develop key evaluation questions for each activity. Process evaluation questions answer how the activity to reduce sodium was implemented. Outcome evaluation questions answer whether the activity was successful in achieving its goal, which can be changing the environment (e.g., the availability of lower-sodium food items) or individual behavior (e.g., patron purchases of lower-sodium food items). Engage with stakeholders to identify questions that are important to them.

Action 2: Determine key indicators. Specifying what to measure to answer evaluation questions will help to assess whether the desired changes have occurred.

Action 3: Define methods, measurements, and data sources. Identifying what information is needed (e.g., patron preferences, layout of the cafeteria or sales spaces) and how to get it (e.g., surveys, taste tests, observational assessments, action plans, sales data) will help the team to answer evaluation questions.

Action 4: Create a timeline for gathering information. Collecting information for evaluating sodium reduction efforts can take place at different stages. For example, as outlined in the implementation steps, information might be collected at the beginning to understand the current availability of lower-sodium products in the organization by doing an environmental scan. Information might also be collected once implementation steps are completed using the same method to find out if the number of available lower-sodium products changed from the beginning.

Action 5: Determine how best to summarize findings. Depending on the type of information gathered, results can be summarized in a variety of ways, such as counting frequencies over time, by different populations or different settings. Data gathered from open-ended discussions can be summarized according to the common patterns heard among similar groups, such as staff and patrons.

Action 6: Communicate results. Different formats for sharing information may be more appropriate for different audiences and different settings. For instance, when communicating with organizational leaders, a formal report or slide presentation may be warranted. Communicating findings via a newsletter article or brochure may be more appropriate for food service line staff and volunteers. Posters and fact sheets may be more relevant for the public. When preparing formation, it is also important to gain an understanding of the target audience so graphics and language can be tailored accordingly.

Story from the Field

The Oregon Health Authority Public Health Department (OHA-PHD) began by collecting purchase logs, 6-week menus, and recipes from all participating food service organizations. After obtaining these documents, they examined nutritional information to identify higher-sodium products such as bread that are frequently used in multiple organizations. From these results, they identified products for reformulation by de-prioritizing products that, although high in sodium, would be difficult to reformulate. This step ensured that the reformulated recipe would reduce sodium. OHA-PHD then worked with organizations such as the Oregon State University Food Innovation Center to reformulate recipes for in-house scratch bread.

4

Planning for Sustainability

Sustaining sodium reduction efforts may involve revisiting the planning step, with an emphasis on maintaining or expanding activities the organization has implemented. Implementers may need to reassess organizational resources that can support sustaining sodium reduction efforts. Activities to reduce sodium that do not require a lot of resources are more likely to be sustained so finding the minimum number of resources to maintain activities will help in planning for sustainability. Also having standard practices that are documented (e.g., recipes, menu cycles, procurement processes) and standalone products (e.g., recorded culinary trainings, adaptable marketing materials) will help in planning to ensure activities are sustained with minimum resources.

Food Service Organizations

Exhibit 4.1 includes questions that food service organizations should consider when planning for sustainability.[5]

Exhibit 4.1. Questions to Consider for Sustainability

Information to Assess	
Staff	**Questions to Consider** • Do staff at the food service organization have enough time to carry out the activity? • Are staff adequately trained? • Do staff receive ongoing training? • Are roles and responsibilities clearly outlined for current and future employees? • Are policies and procedures documented so that staff can refer to them (or train new staff on the policies and procedures)? • Is there a staff person/team who monitors whether the activity is in place over time?
Leadership Support	**Questions to Consider** • How much funding, staff time, and resources are organizational leaders willing to contribute to continue sodium reduction efforts? • How will leadership monitor or hold staff accountable for maintaining the activity?
Space and Equipment	**Questions to Consider** • Does the existing space change routinely (e.g., display changes), or is the space change permanent? • Are there documented processes or standard operating procedures for using the space to promote sodium reduction on an ongoing basis (e.g., floor layouts by calendar month, planograms)? • How will space and equipment be maintained (or replaced) over time? • Is there adequate existing equipment (e.g., salad bar station, etc.)? • Does existing equipment need to be replaced? • Are new policies and nutrition standards embedded in contracts as part of the procurement process?

[5] Washington University in St. Louis Center for Public Health Systems Science. (n.d.). Program Sustainability Assessment Tool Project. Center for Public Health Systems Science. Retrieved 04/14, 2021, from https://cphss.wustl.edu/items/program-sustainability-assessment-tool-project/

Public Health Practitioners

Exhibit 4.2 includes questions that public health practitioners should consider when planning for sustainability.

Exhibit 4.2. Questions to Consider for Sustainability

Information to Assess	
Leadership Support	**Questions to Consider** • How much funding, staff time, and resources are organizational leaders willing to contribute to continue sodium reduction efforts? • Does leadership efficiently manage staff and other resources? • How will leadership monitor or hold staff accountable for maintaining the changes?
Champions	**Questions to Consider** • Has a champion been identified within the organization? • Has the champion received any training to serve effectively within their role? • Does the champion advocate for the program? • Is the champion able to garner resources?
External Partners	**Questions to Consider** • To what extent will external partners be able to continue supporting sodium reduction? • Are there any methods in place to maintain relationships with external partners? • Do sodium reduction efforts have political support and advocacy support from outside the organization? • Is the community engaged in the development of sodium reduction goals?
Financial Resources	**Questions to Consider** • Has the organization implemented policies to help ensure sustained funding? • Does the organization receive funding through a variety of sources, and is the funding sustained?

Public Health Practitioner Lessons Learned: Creating Resources for Longer-Term Training and Use

Story from the Field	Key Lessons Learned
The Philadelphia Department of Public Health (PDPH) employed several approaches for sustaining sodium reduction activities within restaurants and congregate meals. To ensure that staff had training and resources that could be used over time, PDPH held initial in-person staff trainings, developed online training videos (https://www.youtube.com/watch?v=sehelsty--Q) and a toolkit to have in the kitchen. PDPH also created educational materials for display in restaurants and congregate meals. These materials showed patrons the effects of high sodium on their health. The goal was to increase demand for lower-sodium foods so that venues would continue to offer those menu items.	• Create institutional knowledge by developing trainings, templates, educational materials, and organizational structures to maintain sodium reduction strategies • Partner with food manufacturers and food innovation centers to increase the availability of lower-sodium items

Public Health Practitioner Lessons Learned: Partner Networks

Story from the Field	Key Lessons Learned
The Los Angeles County Department of Public Health (LACDPH) focused its sodium reduction sustainability efforts on partnerships and collaborations with communities. LACDPH created a local Community Health Improvement Plan with key stakeholders and partners (e.g., hospitals, universities, etc.). LACDPH partnered across jurisdictions with the County of San Diego to leverage their financial, staffing, and food purchasing resources to extend the reach into hospital and university systems throughout the Southern California region. Lastly, the LACDPH incorporated its sustainability plan for sodium reduction into the Los Angeles County government strategic plan and its internal strategic plan to ensure longer-term accountability for sustaining sodium reduction efforts.	• Incorporate sodium reduction goals and activities into organizational and community-level strategic plans • Expand network to encourage shared goals and broad reach for sodium reduction

5

Conclusion

Although implementing sodium reduction strategies and activities takes time, planning, and ongoing efforts, food service organizations can lead the way in promoting healthy choices and ultimately in improving the health of their patrons and their own businesses. Because individuals in the United States consume on average far more sodium than recommended, modest sodium reductions made by food service organizations can reduce health risks and even save lives. Thus, the role and importance of food service organizations cannot be understated. Food service organizations do not have to undertake these efforts alone. Engaging public health practitioners in planning, implementing, and sustaining sodium reduction efforts, though not required, can bring significant expertise and possibly additional resources such as experience with creating healthy messaging, engaging patrons, and assessing and promoting the success of changes.

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Appendix A:

Organizational Resources and Resource Gaps for Public Health Practitioners to Consider when Partnering with Food Service Organizations to Implement Sodium Reduction Strategies

Exhibit A.1 summarizes the minimum resources needed to successfully implement any of the four sodium reduction strategies. It lists example questions and where to find information to answer those questions.

Exhibit A.1 Food Service Organization Resources for Public Health Practitioners to Consider and Where to Get Information

Types of Resources	
Staff Capacity and Readiness to Change	**Questions to Consider** • How many staff at the food service organization have enough time to contribute to sodium reduction efforts? • What knowledge and experience do current staff have related to sodium reduction (e.g., culinary skills, knowledge of how to maintain flavor while reducing sodium, understanding of purchasing contracts, knowledge of patron preferences)? • What relationships do staff have with external partners (e.g., distributors, manufacturers, farmers/growers)? • Which staff can serve as liaisons to external partners? • What type of training or education is needed to gain staff buy-in for sodium reduction? **Where to Get Information** • Conversations with food service organizational leaders and key staff who could be involved in sodium reduction (e.g., kitchen staff, procurement staff) • Food service organization staff survey or needs assessment to identify staff availability, interest, readiness, and potential concerns related to sodium reduction
Leadership Support	**Questions to Consider** • What role will leaders play in implementing sodium reduction (e.g., adopting or enforcing nutrition standards, modifying purchasing contracts)? • How much funding, staff time, and resources are food service organization leaders willing to contribute to sodium reduction? • Do food service organization leaders value sodium reduction? • How will food service organization leaders help prioritize sodium reduction (e.g., requiring staff to attend training, integrating sodium reduction into standard operating procedures, monitoring implementation, holding staff accountable)? **Where to Get Information** • Conversations with leaders within the food service organization • Conversations with financial managers within the food service organization

Exhibit A.1 Food Service Organization Resources for Public Health Practitioners to Consider and Where to Get Information

Types of Resources	
Champions	**Questions to Consider** • Can you identify an existing leader or staff member within the food service organization who has the skills, experience, passion, and time to serve as a champion for sodium reduction? If not, is there an existing staff member who can be trained to serve as a champion? • What kinds of education and training will new or existing champions need related to sodium reduction, problem solving, and/or gaining buy-in from other staff? • Does the food service organization have clearly defined roles and responsibilities for the champion, or will the champion serve in an informal capacity? **Where to Get Information** • Conversations with existing food service organization leaders and staff members • Conversations with potential champions within the food service organization to gauge their interest, availability, and concerns
Financial Resources	**Questions to Consider** • Does the food service organization have any internal financial resources available to support sodium reduction efforts? • How will the food service organization fund sodium reduction (e.g., through external sources of funding such as grants, leveraging external partners)? **Where to Get Information** • Conversations with financial managers in the food service organization to review and assess budget • Conversations with other food service organizations or public health partners that have implemented sodium reduction efforts to estimate implementation cost
Infrastructure	**Questions to Consider** • Is there enough space to increase the availability of and access to lower-sodium products? • To what extent can staff adapt existing space to make it more conducive for sodium reduction efforts (e.g., rearranging displays, posting marketing and educational materials that promote lower-sodium options)? • Do kitchen staff have the necessary equipment to cook lower-sodium recipes from scratch? If not, do kitchen staff have what they need to be able to adapt pre-prepared products? • Does the organization have a way to assess sodium content in products and recipes (e.g., using nutritional analysis software)? **Where to Get Information** • Conversations with leadership and kitchen staff • Consultation with a culinary expert (e.g., local community college, culinary school) to identify the infrastructure needed to support sodium reduction • Food service organization policies regarding purchasing new equipment and marketing • Conversations with external partners to determine whether and how they could fill gaps

Resource needs will vary by strategy, the size of the food service organization, and the complexity of steps involved to implement specific interventions. For example, formulating new lower-sodium products may require more staff capacity for recipe development, testing, scaling, and gaining manufacturer buy-in than purchasing existing lower-sodium products does.

The Organizational Resource Gap Analysis Worksheet (**Exhibit A.2**) includes some examples of resources that may be relevant to consider when partnering with food service organizations to implement sodium reduction strategies. Public health practitioners may use any relevant examples, cross out irrelevant examples, and add examples unique to the food service organization implementing changes. The type and amount of resources will likely vary based on the strategy and interventions chosen. Some strategies and interventions are more complex than others and will require more staff capacity and financial resources than others.

Exhibit A.2 Organizational Resource Gap Analysis Worksheet

Resources Available	Resource Gaps	Strategies to Address Resource Gaps
Staff Capacity		
• Designated staff have sufficient time and availability • Designated staff have relevant knowledge and experience • Staff stability (level of turnover) is sufficient • Staff culture (norms and values) align with selected strategies • Staff receptive to making changes required to implement selected strategies • _____ • _____ • _____	• Staff are too busy or feel overwhelmed with their routine tasks • Designated staff are resistant to implementing sodium reduction strategies • _____ • _____ • _____ • _____ • _____ • _____ • _____ • _____	• Hire and train interns, volunteers, or consultants • Conduct internal staff training to provide background education and rationale for sodium reduction • _____ • _____ • _____ • _____ • _____ • _____ • _____
Leadership Support		
• Leadership views sodium reduction as an organizational priority • _____ • _____ • _____ • _____ • _____ • _____ • _____	• Leadership not supportive of sodium reduction as an organizational priority • _____ • _____ • _____ • _____ • _____ • _____ • _____	• Identify a champion within the organization to help gain leadership and staff buy-in for sodium reduction • _____ • _____ • _____ • _____ • _____ • _____ • _____

Exhibit A.2 Organizational Resource Gap Analysis Worksheet

Resources Available	Resource Gaps	Strategies to Address Resource Gaps
Champions		
• Existing leader or staff member who can serve as sodium reduction champion • _____ • _____ • _____	• Unable to identify a champion who has sufficient availability to support sodium reduction efforts • _____ • _____ • _____ • _____ • _____ • _____ • _____ • _____	• Collaborate with leadership to ensure potential champion(s) have dedicated time for sodium reduction (e.g., transition responsibilities to other staff members) • _____ • _____ • _____ • _____ • _____ • _____ • _____
Financial Resources		
• Internal funding exists to support sodium reduction • External funding (e.g., grants, donations) exists to support sodium reduction • _____ • _____ • _____ • _____ • _____ • _____ • _____	• No internal funding is available to support sodium reduction • _____ • _____ • _____ • _____ • _____ • _____ • _____	• Leverage external partnerships with organizations (e.g., academic institutions, culinary institutes) that can supplement existing resources by providing training/ technical assistance, sharing equipment or space, etc. • _____ • _____ • _____ • _____ • _____ • _____
Infrastructure Needs and Other Resources		
• Test kitchen • Nutrition analysis software • Patron satisfaction survey template • Standardized menus/recipes • _____ • _____ • _____ • _____ • _____ • _____ • _____	• Insufficient space in the kitchen for testing new recipes • _____ • _____ • _____ • _____ • _____ • _____ • _____	• Consider partnering with a culinary institute with the capacity to test new recipes • _____ • _____ • _____ • _____ • _____ • _____ • _____

Appendix B:

Real-World Insights

This section presents lessons learned that can be applied to all 4 strategies. Lessons learned specific to food service organizations are discussed first, followed by lessons learned specific to public health practitioners. The section concludes with tips for public health practitioners when collaborating with state agencies, distributors, manufacturers, and food service organizations.

Food Service Organizations

Some lessons learned from SRCP food service organizations are relevant for multiple strategies. **Exhibit B.1** summarizes those broader lessons learned.

Exhibit B.1 Lessons Learned That Cut Across Multiple Strategies-Food Service Organizations

Lesson	Considerations
Prioritize gaining buy-in from the food service organization team and leaders	• Gain buy-in from all levels of food service management – Include food service line staff and executive leaders in meetings to ensure they are regularly informed on updated policies
Make sodium reduction easy and emphasize its importance among staff	• Develop new recipes that are easy to follow and that require few staff to prepare • Educate food service line staff about why reducing sodium consumption is important • Combat stereotypes that staff may have about lower-sodium items lacking taste
Roll out sodium reduction changes slowly and incrementally. Small changes over time may be more palatable to patrons	• Roll out changes in one setting first, such as the cafeteria, before moving on to other settings at the organization, like the commissary or vending machines • Do not change the entire menu at once; focus on improving the nutritional quality of foods that are easier to replace, such as soups/salad bar/to-go items first
Employ marketing strategies to encourage the consumption of lower-sodium options	• Market the appeal of healthy food options instead of the nutritional quality (i.e., focus on how healthier food options are more visually appealing rather than detailing what not to eat)

Public Health Practitioners

Food service organization staff may focus on time, patron acceptance, cost, and staff capacity when implementing sodium reduction strategies. In contrast, public health practitioners often think about the broader impact of evidence-based processes on population health. This section offers considerations and lessons learned for public health practitioners as they navigate interacting with stakeholders (e.g., state agencies, distributors, manufacturers, and food service organizations, etc.) and implementing activities in various organizations.

When helping a food services organization choose and implement an activity, consider the following questions:

- How much of an impact will this activity have on reducing sodium?
- How will this activity increase availability of lower-sodium foods?
- How will this activity increase access to lower-sodium foods?
- How will this activity contribute to reduced sodium consumption?
- How can this activity be sustained over time?

It will also be helpful to consider other key question about the readiness of the food service organization itself to implement the activity. These might include whether the organization has leadership support for the activity and/or if they have an existing policy in place to support the activity and staff to support implementation and monitoring of the activity over time. Phase 3 provides guidance on how to assess organizational readiness. **Appendix A** outlines the minimum resources needed to successfully implement any of the four strategies and includes example questions and where to find information to answer those questions.

When reviewing the tables with the implementation steps (**Exhibits 3.5-3.15**), keep the following in mind:

- In addition to the more-general assessments conducted in Phases 2 and 3, an activity may also have activity-specific assessments, such as a pantry assessment or nutritional analysis.
- Although implementation steps are presented sequentially, they may occur iteratively or simultaneously.
- Some steps may be less relevant for some organizations.
- The implementation steps provide general guidance on how to do the activity. The steps may need to be customized to the organization.

Some lessons learned from state and local health departments are relevant for multiple strategies. **Exhibit B.2** summarizes those broader lessons learned.

Exhibit B.2 Lessons Learned That Cut Across Multiple Strategies-Public Health Practitioners

Lesson	Considerations
Prioritize gaining buy-in from and establishing rapport with food service organization leadership	• Ensure policies have buy-in from all levels of management. Engaging individuals from a variety of leadership levels promotes sustainability – High-level leaders within food service organizations may be able to allocate funds – Chefs, registered dietitians, and individuals who work directly with food service line staff can provide guidance and oversight – Leaders among food service line staff can encourage peer involvement • Include leaders on advisory teams, in meetings, and in regular communication to establish procedures and obtain resources • Pair policies with monitoring and enforcement to encourage food service line staff to follow through on implementing changes
Ensure that food service line staff and chefs are prepared for and willing to change their current food preparation practices (e.g., limiting free-salting during preparation or rinsing canned beans)	• Organize in-person staff training when possible to allow for real-time interaction and staff engagement. Hold staff trainings at multiple points across the year • Establish regular check-ins (e.g., morning huddles) where the head chef and/or food service director/dietician discuss with staff food preparedness and progress on implementing changes • Facilitate peer-to-peer learning by bringing in guest chefs to provide training to food service line staff • Secure resources, funding, and dedicated time for food service line staff and chefs to implement changes • Partner with individuals who have expertise in nutrition, the food industry, or specific interventions, such as registered dietitians, cooks, consultants from culinary institutes, food manufacturers, and experts in behavioral economics to stay abreast of industry changes and to provide technical assistance to food service line staff
Tailor marketing strategy to the organization and gather resources to share with food service organizations	• Avoid using standard public health–oriented language in marketing campaigns – Tailor language for different audiences (e.g., food industry, general public) • Develop a dynamic marketing team. Include individuals with experience in the food service industry and in graphic design • Provide marketing toolkits to support food service organizations implementing changes • Align marketing strategy with institution marketing policies and procedures. Different institutions (e.g., schools, universities) may have restrictions or approval processes, such as guidelines dictating branding and logos – Be flexible in allowing the partner (e.g., hospital, university) co-brand marketing materials such as adding their wellness logo

Tips for Public Health Practitioners for Collaborating with State Agencies, Distributors, Manufacturers, and Food Service Organizations

State Agencies

- Share a list of foods that meet specific nutrition guidelines with state agencies to increase demand for healthier products
- Integrate the list of healthy/lower-sodium food options in the food distributor ordering system to eliminate the need for state agencies to review a separate list while they are purchasing products, making it easier to find and purchase the healthier/lower-sodium products

Distributors

- Learn about the food service industry and build relationships with distributors by engaging in networking activities, such as attending food forums
- Collaborate with distributors to regularly update the list of available lower-sodium products to share with food service organizations to help them meet nutritional guidelines
- Share expectations regarding the desired nutrient content of items with distributors to help them to understand nutrition guidelines. Distributors often identify "healthy" food by their macronutrient content (e.g., amount of protein, carbohydrates, fat) and do not consider sodium
- Make a business case and show patron demand for healthier items to ensure buy-in from distributors who may not see promoting health as an adequate incentive to make changes

Manufacturers and Farmers/Growers

- Engage regional or local manufacturers who may already be familiar with a particular food service organization. Facilitating a partnership may be mutually beneficial to the manufacturer and food service organization, as some manufacturers seek to support their communities and build their reputation
- Facilitate relationships between local farmers/growers and food service organizations to procure local food
- Research what products are available each season from farmers/growers and share findings with food service organizations
- Create a small-scale prototype of a new product before talking with the manufacturer to show that the product is feasible and to manage potential challenges in removing salt from products (e.g., maintaining shelf life, balancing macronutrients and proportions of other ingredients)
- Demonstrate demand for lower-sodium products by presenting testimonials from food service organizations. However, beware not to make "empty promises" that the product will be bought
- Be mindful of maintaining cost neutrality when working with manufacturers to reformulate new products

Food Service Organizations

- Meet regularly with food service organization staff (food service line staff and chefs), especially during planning and early implementation, to learn the language they use and understand "the lay of the land"
- Present the potential financial and health benefits for implementing changes
- Identify key individuals, or "champions," within the institution who can help promote changes with leadership, food service manager or director, chefs, and food service line staff
- Build rapport with food service line staff, chefs, and food service director or manager who have existing relationships with manufacturers and experience in the food industry to facilitate buy-in from manufacturers and cultivate a common goal
- Connect with wellness teams and health committees when organizations are part of a larger system (e.g., school districts, universities hospitals, government agencies) to help market the availability of healthy foods and link to other health promotion activities in the organization
- Assist food service manager or director to create standard recipes for menu cycles that multiple organizations or institutions can use if they are a part of the same system
- Educate food service organization staff (e.g., food service line staff, chefs, director, or manager) about why sales data are needed for evaluation and for understanding the business case
- Identify the school's timeline for ordering commodity products. Make sure to propose and discuss these changes early in the year, as bulk items are typically ordered in the spring
- If possible, make changes to the commodity items ordered in bulk by the food service organization. Be aware that products from manufacturers change frequently and may not be available in following years, impacting sustainability
- Include the individual at the food service organization who is responsible for purchasing ingredients and products when considering new lower-sodium items to purchase

Appendix C:

Examples of Process and Outcome Evaluation Questions for Evaluating Sodium Reduction Activities Mapped to Indicators and Data Sources

Exhibit C.1 Examples of Process and Outcome Evaluation Questions for Evaluating Sodium Reduction Activities Mapped to Indicators and Data Sources

Process Evaluation Questions	Indicators	Data Source
What intervention steps were completed? • Were they completed on time?	Description of implementation steps and specific tasks	Action plan
How many patrons were reached?	#, % of patrons who purchase lower-sodium products	Sales data, sales-mix data, observational assessment
How many partners were involved in sodium reduction efforts?	#, % of partners who participated in sodium reduction efforts	Partner lists, meeting minutes
How many staff were trained?	#, % of staff who participated in training	Training logs

Outcome Evaluation Questions	Indicators	Data Source
How many partners adopted the new contract language?	#, % of organizations who adopted new contract language	Contracts
How many high-sodium food items were replaced with lower-sodium alternatives?	#, % of food items replaced	Environmental scan, pantry observations
How many lower-sodium options were made available?	#, % of lower-sodium options made available	Environmental scan, pantry observations
To what extent were lower-sodium options competitively priced?	#, % of lower-sodium options that were priced competitively with options that are not lower in sodium content	Menu review
To what extent was the environment changed where food was served?	# of areas in food service environment that were changed (e.g., placement, display, equipment, etc.)	Environmental scan, planogram review
To what extent was the average sodium content of meals reduced?	% change in sodium content of meals	Nutritional assessment
To what extent did patrons like the new lower-sodium options?	#, % of patrons that reported liking new lower-sodium options	Taste test results, patron surveys
To what extent did patrons purchase more lower-sodium food items?	#, % of lower-sodium items purchased	Sales data, sales-mix data

Appendix D:

Resources

Assessment Tools

Creating Healthier Hospital Food, Beverage, and Physical Activity Environments, National Center for Chronic Disease Prevention and Health Promotion
https://www.cdc.gov/obesity/hospital-toolkit/pdf/creating-healthier-hospital-food-beverage-pa.pdf

Nutrition Environment Measures Survey, University of Pennsylvania
https://nems-upenn.org/

Sodium Reduction: Assessment to Action Tools
Assessment to Action – Online Tools to Reduce Sodium in Food Service

Sodium Reduction Partner Readiness Tool
https://www.cdc.gov/dhdsp/docs/Sodium-reduction-partner-readiness-worksheet-508.xlsx

Resources on Implementation

Connecting Public Health and the Food Industry to Reduce Sodium, Training Videos for Food Service Professionals, National Network of Public Health Institutes
https://nnphi.org/relatedarticle/sodium-reduction/

Connecting Public Health and Food Sector Collaborators Webinar Series, CDC and the National Network of Public Health Institutes

Healthy Menu Innovations in Schools
https://www.dialogue4health.org/web-forums/detail/menu-innovations-in-schools

Reducing Sodium in Food Service Settings
https://www.dialogue4health.org/web-forums/detail/reducing-sodium-in-food-service-settings

Reducing Sodium through Food Service Guidelines and Nutrition Standards
https://www.dialogue4health.org/web-forums/detail/reducing-sodium-through-food-service-guidelines-and-nutrition-standards

Reducing Sodium through Meal and Menu Modifications
https://www.dialogue4health.org/web-forums/detail/connecting-public-health-and-food-sector-collaborators

Connecting Public Health and the Food Industry Webinar Series, CDC and the National Network of Public Health Institutes

Reducing Sodium in Partnerships with Food Service Vendors
https://dialogue4health.org/web-forums/detail/reducing-sodium-in-partnership-with-food-service-vendors

Voluntary Commitments to Reduce Sodium
https://www.dialogue4health.org/web-forums/detail/connecting-public-health-and-the-food-industry-voluntary-commitments

Reducing Sodium through Public-Private Collaboration
https://dialogue4health.org/web-forums/detail/reducing-sodium-through-public-private-collaboration

Reducing Sodium through Food Manufacturing
https://dialogue4health.org/web-forums/detail/reducing-sodium-through-food-manufacturing

Connecting Public Health and Food Service Operators Webinar Series, CDC and the National Network of Public Health Institutes

Reducing Sodium in Hospital and Healthcare Settings
https://dialogue4health.org/web-forums/detail/reducing-sodium-in-hospital-and-healthcare-settings

Culinary Techniques for Reducing Sodium
https://dialogue4health.org/web-forums/detail/culinary-techniques-for-reducing-sodium

Changing the Way America Eats
https://dialogue4health.org/web-forums/detail/changing-the-way-america-eats

Tactical Steps to Sodium Reductions
https://dialogue4health.org/web-forums/detail/tactical-steps-to-sodium-reduction

Getting Started with Food Service Providers
https://dialogue4health.org/web-forums/detail/reduce-the-salt-keep-the-flavor

A Strategy Worth Its Salt Webinar, ChangeLab Solutions
https://www.changelabsolutions.org/product/strategy-worth-its-salt

Partnering with Food Service to Reduce Sodium: A Toolkit for Public Health Practitioners, National Network of Public Health Institutes and Health Resources in Action
https://nems-upenn.org/

Reducing Sodium and Added Sugar through Partnerships, Association of State and Territorial Health Officials
https://www.astho.org/Prevention/Chronic-Disease/Improving-Healthy-Food-Offerings/

Reducing Sodium Makes Cents: How Morrison Healthcare Is Moving the Marketplace toward Healthful, Lower-Sodium Food for Smaller Purchasers, ChangeLab Solutions
https://www.cdc.gov/salt/pdfs/bizcasestudy_morrison.pdf

Restaurant Guide: Cut the Sodium but Keep the Flavor, California Department of Public Health
https://healthyshasta.org/wp-content/uploads/HealthyKidsChoice/CuttheSodiumKeepthe Flavor_Aug2012.pdf

The Shakedown on Sodium: Using Group Purchasing to Provide Lower-Sodium Foods, ChangeLab Solutions, ChangeLab Solutions
https://www.changelabsolutions.org/product/shakedown-sodium

Sodium Reduction: Talking Points for Public Health: Responding to Common Perceived Barriers among the Food Industry ChangeLab Solutions
https://www.changelabsolutions.org/sites/default/files/Sodium_Reduction-TALKING-POINTS_FINAL_20160302.pdf

Sodium Tip Sheets, CDC Division for Heart Disease and Stroke Prevention
https://www.cdc.gov/dhdsp/docs/Sodium-Tip-Sheets.pdf

MealBuilder
https://mealbuilder.org/

How Sodium Savvy Is Your Food Service and Sodium Savvy Food Service Tips
https://foodandhealth.com/sodium-savvy/

Baseline assessment of the Food Environment
https://www.cdc.gov/nutrition/food-service-guidelines/build-a-foundation/assess-food-environment.html

Resources on National Guidelines

Healthy Eating Research Nutrition Guidelines for the Charitable Food System
https://healthyeatingresearch.org/research/healthy-eating-research-nutrition-guidelines-for-the-charitable-food-system

Dietary Guidelines for Americans 2020–2025, U.S. Department of Health and Human Services and U.S. Department of Agriculture
https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary_Guidelines_for_Americans_2020-2025.pdf

Food Service Guidelines Implementation Toolkit
https://www.cdc.gov/nutrition/food-service-guidelines/implementation-toolkit.html

Food Service Guidelines: Case Studies from States and Communities
https://www.cdc.gov/obesity/downloads/FSG_CaseStudies_508.pdf

Healthy Nutrition Guidelines: Implementation Guide for Cafeterias, Washington State Department of Health
https://www.doh.wa.gov/Portals/1/Documents/Pubs/340-224-CafeteriasImplementationGuide.pdf

Food Service Guidelines for Federal Facilities
https://www.cdc.gov/obesity/downloads/guidelines_for_federal_concessions_and_vending_operations.pdf

Smart Food Choices: How to Implement Food Service Guidelines in Public Facilities, U.S. Department of Health and Human Services
https://www.cdc.gov/obesity/downloads/strategies/Smart-Food-Choices-508.pdf

Resources on Evaluation

Developing an Effective Evaluation Plan, CDC, National Center for Chronic Disease Prevention and Health Promotion
https://www.cdc.gov/obesity/downloads/CDC-Evaluation-Workbook-508.pdf

Evaluation Guide: Developing and Using a Logic Model, CDC Division for Heart Disease and Stroke Prevention
https://www.cdc.gov/dhdsp/docs/logic_model.pdf

Introduction to Program Evaluation for Public Health Programs: A Self-Study Guide, CDC
https://www.cdc.gov/eval/guide/index.htm

Sodium Reduction in Communities Program Outcome Evaluation Toolkit
https://www.cdc.gov/dhdsp/docs/SRCP-Outcomes-Toolkit.pdf