

Examining Early Successes in Implementing Four Key Sodium Reduction Strategies from October 2016–September 2018

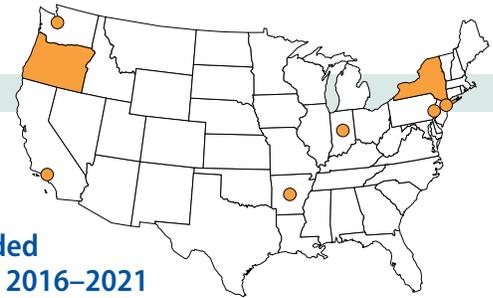
Program Background

High sodium intake can lead to hypertension and can increase the risk for heart disease and stroke.¹ The *2015–2020 Dietary Guidelines for Americans*² recommends no more than 2,300 mg/day of sodium for adults, but in 2014, U.S. adults aged 20 to 69 years consumed an average of 3,608 mg/day.³ This gap between recommended intake and actual intake poses a serious public health risk. Reducing sodium intake is challenging, as it is largely driven by sodium found in processed foods and foods prepared in restaurants—sources that consumers often cannot control.

Partnering with food service organizations to provide consumers with lower-sodium options may be one of the most effective approaches that public health agencies can take to reduce sodium at the community level. To this end, the Centers for Disease Control and Prevention (CDC) funded eight recipients, including county and state health departments and a university, as part of the 2016–2021 Sodium Reduction in Communities Program (SRCP).

SRCP recipients work with food service organizations in eight settings to implement four sodium reduction strategies. These strategies are designed to increase the availability and purchase of lower-sodium food options, with the goal of reducing sodium intake to recommended levels from the *Dietary Guidelines for Americans*.

Challenges to implementing sodium reduction interventions in food service organizations include integrating them into



SRCP-Funded Recipients 2016–2021

Los Angeles County, California; Marion County, Indiana; New York City; New York State; Philadelphia, Pennsylvania; Oregon State; Seattle and King County, Washington; University of Arkansas for Medical Sciences

food service operations specific to each setting and gaining staff and stakeholder trust. SRCP recipients have developed effective implementation strategies to overcome many of these challenges and have made substantial progress on the short-term outcome measures in each of the four SRCP strategies to during the first 2 years of the program.

Sodium Reduction Strategies



Implementing food service guidelines and nutritional standards for sodium content.



Making meal and menu modifications to reduce sodium content.



Changing procurement practices to reduce sodium content in purchased items.



Implementing environmental strategies and behavioral economics approaches to promote lower-sodium items.

SRCP Settings

	 Distributive Meal/Congregate Meals Programs	 Early Childhood Education Centers	 Emergency Food Services	 Higher Learning Institutions	 Hospitals	 Restaurants	 Schools	 Worksites
Entities Reached	 188	57	13	22	19	15	218	5
People Reached	 403,000	5,000	228,000	373,000	2,246,000	5,000	626,000	16,000

Impact on Short-Term Outcomes



Implementing Food Service Guidelines and Nutrition Standards for Sodium Content

Recipients worked with food service organizations to establish guidelines or nutrition standards to govern the amount of sodium in meals or menu items served. They provided support for guideline development, including suggested approaches and wording. Recipients facilitated the implementation of guidelines and nutrition standards that include sodium in 159 food service organizations.

Recipients had to use creative approaches in some cases, because some food service organizations have little experience with food service guidelines and nutrition standards. This meant that some organizations may not know what to include in guidelines, especially with respect to sodium. To facilitate implementation, one recipient provided

procurement guidelines to help the food service companies and other food vendors understand the types of products to be targeted.



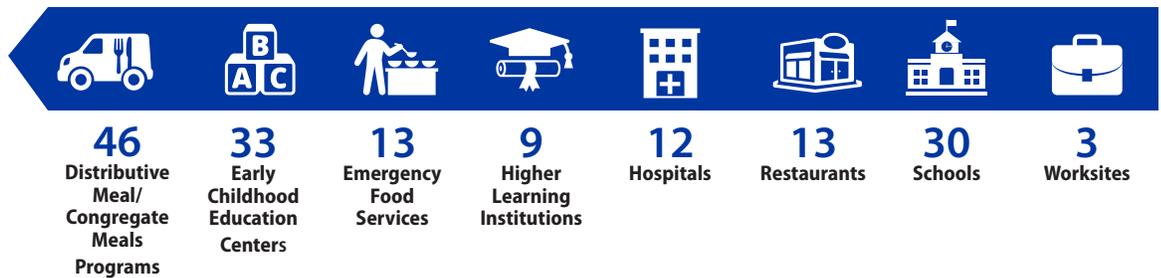
“Ultimately, we’re looking just for lower-sodium substitutions ... [P]roviding some sodium-specific procurement guidelines ... helps [food service companies] identify products that meet that criteria we’re looking for without being more than 140 mg per serving.”

— Funded Recipient Staff Member



159

food service organizations implemented guidelines and nutrition standards that include sodium.



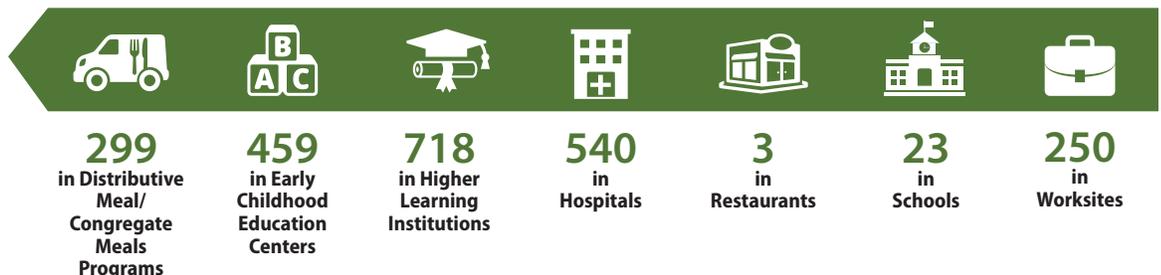
Making Meal and Menu Modifications to Reduce Sodium Content

Recipients worked with food service organizations to develop new recipes or modify existing recipes to reduce the sodium content of the meals and menu items offered. This strategy was accomplished through staff trainings, nutritional analysis, reviews of recipes, working with staff to develop new recipes, and working with culinary organizations to develop new recipes.

Recipients supported the recipe modification of 2,292 meals and menu items. Restaurants and schools have not yet made substantial progress on recipe modification, but recipients are working with those entities to make up this gap in the next 3 years of the program.

2,292

meals and menu items were affected by recipe modification to reduce sodium content.





Making Meal and Menu Modifications to Reduce Sodium Content (continued)

Recipients recognized that for some food service organizations, lack of staff training may require innovative approaches, because many of the modifications required more scratch cooking. In addition to assisting with recipe development, many recipients also provided training to food service organization staff on food preparation techniques required for the new recipes. Education and training with kitchen staff included knife skills and food preparation, basic and scratch cooking skills, recipe modifications, and recipe development. One recipient reported developing a procedures manual for chefs that specified strategies required for recipe modification, including substitution of salt with herbs and guidelines for reformulating soup bases.



“We started with knife skills [with school cafeteria staff]. We learned how to chop onions, how to chop different vegetables, and things like that. And then we made some different salsas. We did a mango salsa. We ... [tried] to teach them how to add flavor, and some different things that you can use instead of sodium so that the sodium is not missed.”

— Funded Recipient Staff Member



Changing Procurement Practices to Reduce Sodium Content in Purchased Items

Recipients worked with food service organizations to change procurement practices to purchase lower-sodium ingredients and menu items. Recipients recognized that for many food service organizations, changing procurement practices to include lower-sodium products may be a more feasible approach than modifying menus or recipes because of equipment or staffing restrictions. Recipients helped food service organizations identify suppliers' lower-sodium options that could be integrated into existing menu items or offerings. Recipients supported the replacement of 1,688 items with lower-sodium alternatives.



“[We helped organizations] shore up procurement agreements ... and really work on how to galvanize purchasing power to just make producers and manufacturers ... respond to this demand [for lower sodium options].”

— Funded Recipient Staff Member



Recipients used creative approaches to facilitate changes to established procurement practices. One recipient described how procurement could be easier if staff selected items from the vendors' existing inventory rather than asking vendors to start supplying products not currently on their distribution list. To select the items, the recipient created reports for the food service directors that included nutrition information for all of the snacks at the setting. Specifically, the reports outlined which snacks met the nutrition standards and which did not. For the snacks that did not meet standards, they checked the current distributor's inventory for replacement products that did meet standards.

Many recipients also promoted the adoption of the same procurement language within systems, such as school districts, health care systems, and correctional facilities systems, to increase the reach of procurement practices. Systems that implemented a uniform policy encouraged food distributors to make more lower-sodium items available at a lower cost. Ideally, the lower cost will also ensure sustainability of lower-sodium items. Lower costs were particularly important for several government agencies with limited budgets.

1,688

products/
ingredients were
replaced with a
lower-sodium
alternative.



64
in Distributive
Meal/Congregate
Meals
Programs



9
in Emergency
Food
Services



559
in Higher
Learning
Institutions



1,027
in
Hospitals



29
in
Worksites



Implementing Environmental Strategies and Behavioral Economic Approaches to Promote Lower-Sodium Items

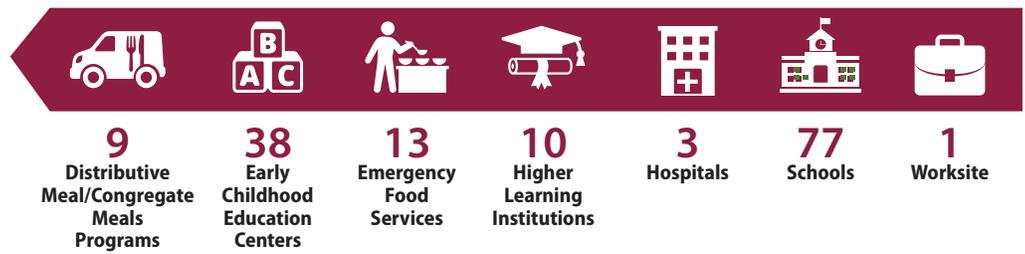
Recipients helped food service organizations implement environmental and behavioral economic strategies such as placing lower-sodium foods at registers, putting lower-sodium foods at eye level, and adding healthy food labeling to increase lower-sodium purchases. Recipients supported the implementation of environmental and behavioral economic strategies in 151 food service organizations.

Recipients had to use innovative approaches, because food service organizations frequently were not familiar with environmental and behavioral economic strategies and did not understand their purpose or how to implement them. Some recipients worked on translating academic or public

health jargon into a more accessible form. For example, one recipient felt that food service organizations benefited from translating behavioral economic strategies into lay terms that were more setting appropriate. Another recipient posted pictures of different behavioral economic strategies (e.g., improved lighting, display options) on community Pinterest boards; this approach provided visual aids to help settings clearly envision how they could implement strategies that may have seemed inaccessible. Implementation approaches like this enabled recipients to facilitate the implementation of environmental choice architecture and placement interventions for lower-sodium foods in 151 food service organizations.

151

food service organizations are implementing environmental choice architecture and placement interventions for lower-sodium foods.

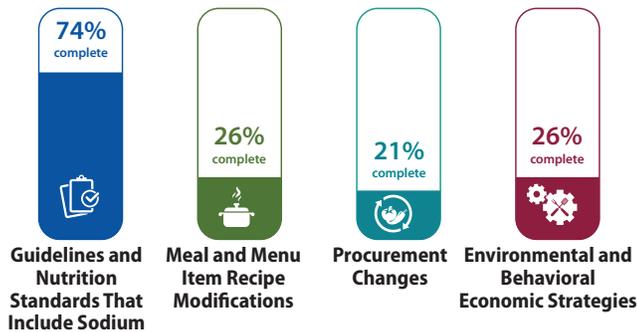


Next Steps

Progress on Short-Term Goals

Working with food service organizations to increase the availability and purchase of lower-sodium options required SRCP recipients to develop creative and innovative implementation approaches.

These approaches have enabled the recipients to make progress toward their 5-year goals for short-term outcomes in the first 2 years of the program.



Intermediate Goal

Recipients have the goal of decreasing the sodium content of food items by **217 mg** on average.

Long-Term Goals

Achieving these short-term and intermediate goals will substantially increase the availability and purchase of lower-sodium options and will lead to reduced sodium consumption.

By the end of the program, recipients have the following goals:

Impact **866,541** people to reduce average daily sodium intake.

Reduce average daily sodium intake by **630 mg**.

References

- Zhang Z, Cogswell ME, Gillespie C, et al. Association between usual sodium and potassium intake and blood pressure and hypertension among US adults: NHANES 2005–2010. *PLoS One*. 2013;8(10):e75289.
- U.S. Department of Agriculture (USDA), U.S. Department of Health and Human Services (HHS). Rockville (MD): The Office of Disease Prevention and Health Promotion; c2015. Dietary Guidelines for Americans, 2015–2020. Available from <http://health.gov/dietaryguidelines/2015/guidelines/>
- Cogswell ME, Loria CM, Terry AL, et al. Estimated 24-hour urinary sodium and potassium excretion in U.S. adults. *JAMA*. 2018;319:1209–1220.

