

# SODIUM REDUCTION IN CICOA'S MEALS & MORE PROGRAM



## WHY SODIUM MATTERS

The Dietary Guidelines for Americans (DGA) recommends that most individuals consume a maximum of 2,300 mg of sodium each day and that individuals with high blood pressure or kidney disease limit sodium to 1,500 mg per day. The average daily American consumption is 3,400 mg of sodium.<sup>1</sup> More than 90% of Americans consume too much sodium.<sup>2</sup> Consuming too much sodium can cause high blood pressure, which is the biggest risk factor for having a heart attack or stroke.

In 2018, 69% of CICOA Aging & In-Home Solutions (CICOA) clients reported having high blood pressure, 30% reported having heart disease, and only 10% reported having no health conditions.<sup>3</sup> Most of the sodium people consume comes from processed, packaged and restaurant foods. CICOA's Meals & More service provides home delivered and neighborhood meals to adults 60 and older and adults with disabilities. CICOA served more than 500,000 meals in 2020. Distributive meal programs, like CICOA's, can both improve the nutritional quality of foods served to clients as well as demonstrate interest in lower sodium products to food manufacturers.

## INTERVENTION APPROACH

CICOA and their food service provider, Chef for Hire, partnered with the Marion County Public Health Department (MCPHD) on the Sodium Reduction in Communities Program (SRCP) to lower sodium in the meals served in CICOA's Meals & More Program. The Centers for Disease Control and Prevention (CDC) awarded MCPHD a five-year cooperative agreement to implement the program. A team of registered dietitians from MCPHD and CICOA and the chef from their food service provider worked together to accomplish this using the following strategies: create sodium targets, identify high-sodium products to be replaced by lower-sodium items, modify recipes, provide nutrition education, and implement food service guidelines. The goal was to gradually reduce sodium by 20%. Annually, MCPHD registered dietitians conducted a nutrient analysis to track progress towards the goal.

The sodium targets by food categories used for the project can be seen in Table 1. These were used to identify products and recipes that were candidates for replacement and modification. Examples of one-for-one product replacements are lower sodium marinara sauce, reduced sodium meatballs and sliced bread. Modified recipes included vegetable lasagna, scalloped potatoes, and ham and beans. Replacements and modifications were facilitated by the chef's knowledge of what other products are available, how to make cost-neutral changes and maintain sensory and nutrition quality of the products. MCPHD staff conducted taste tests to ensure that clients accepted the changes made. Nutrition education included handouts as well as providing no salt seasoning at meal sites. Nutrition guidelines are standards incorporated into the contract with the food service provider that ensure sustainability of changes made within the project.

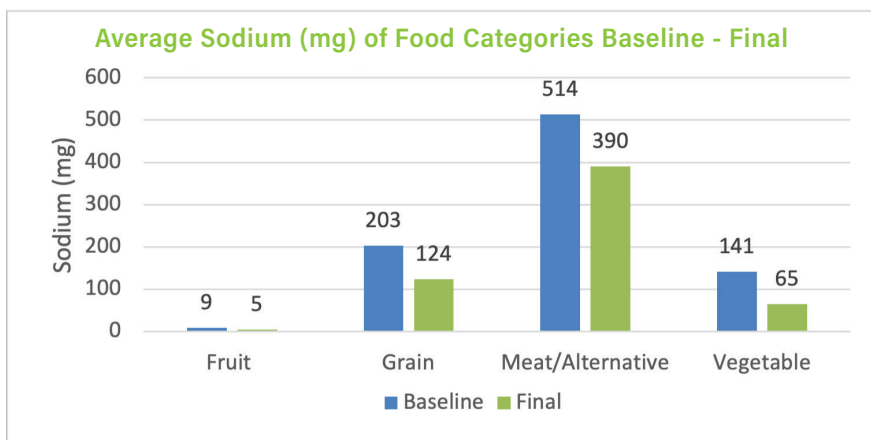
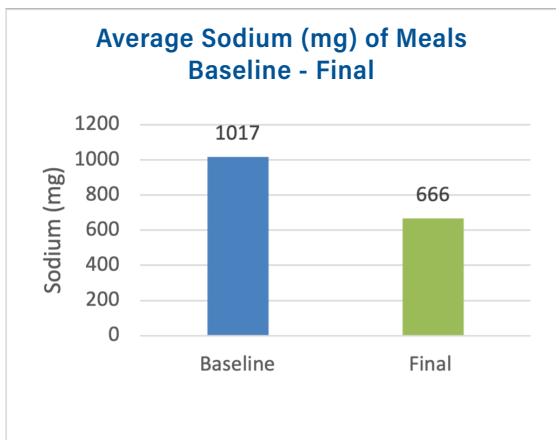
CICOA FOOD CATEGORIES	SODIUM
Meals	800 mg
Meat/Alternatives	480 mg
Grains	230 mg
Vegetables	230 mg
Fruit	230 mg

**TABLE 1: CICOA SODIUM TARGETS**

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## RESULTS



During the five years, the average sodium in meals was lowered from 1,017 mg to 666 mg, a reduction of 34.5%. There was a reduction in sodium in each food category. By the end of the project period, the average sodium content of each food category fell within the CICOA sodium targets.

At baseline, 72% of foods served met the lower sodium guidelines. After the intervention, 91% of foods served met the guidelines. Partners worked together to make changes that remained within the program's cost constraints, improved the nutrition profile, and maintained client preferences. By serving meals that align with the DGA, CICOA's Meals & More is helping their clients manage or prevent chronic diseases.

## FOR MORE INFORMATION

**CICOA AGING & IN-HOME SOLUTIONS, MEALS & MORE PROGRAM:**  
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## REFERENCES

1. Quader, ZS, Zhao L, Gillespie, C, Cogswell ME, Terry AL, Moshfegh A, et al. Sodium intake among persons aged  $\geq 2$  year – United States, 2013-2014. MMWR. 2017; 66 (12):324-238.
2. Jackson SL, Coleman King SM, Zhao, L, Cogswell ME. Prevalence of sodium intake in the United States. MMWR. 2016;64(52):1394-7.
3. Indiana Family and Social Services Administration. Community Assessment Survey for Older Adults – Indiana Subgroup Comparisons. 2017

The SRCP project was partially supported by the Cooperative Agreement 6 NU58DP000019 funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.