Sodium Reduction in University Cafeterias: Soups, Sauces, and Spices

Problem
In Spokane County, Washington, nearly a third of residents have high blood pressure and almost a quarter of all deaths are attributed to heart disease or stroke. Consuming too much sodium can lead to high blood pressure, a leading risk factor for heart disease and stroke. The latest data also attribute close to a quarter of all deaths in Spokane County to heart disease or stroke.

Project
In 2014, Spokane Regional Health District partnered with Sodexo’s ZagDining operation at Gonzaga University, with the goal of reducing sodium in targeted foods, including soups and tomato-based recipes.

Outcomes
Since September 2014, Sodexo has incorporated its low sodium soup base into 18 of the 28 soups offered at the school. Using canned diced tomatoes with no added salt has removed 96% of sodium in tomato sauce and salsa recipes, opening the door for Sodexo food service operations at three neighboring colleges and one local hospital to use the same tomato products.

Statement of Problem:
Heart disease and stroke are leading causes of death in the United States. According to Washington State Department of Health statistics, in 2013, nearly a third of Spokane County’s estimated 371,000 adults had high blood pressure, a major risk factor for heart disease and stroke. The latest data also attribute close to a quarter of all deaths in Spokane County to heart disease or stroke.

Reducing high blood pressure can decrease a person’s risk of developing cardiovascular disease and other chronic health conditions. One avenue for preventing and reducing high blood pressure is to cut back on sodium. The majority of Americans exceed the 2010 Dietary Guidelines for Americans recommendation of less than 2,300 milligrams (mg) of sodium per day. Because most of Americans’ dietary sodium comes from processed and restaurant foods, the availability and accessibility of lower sodium food products can greatly affect sodium intake.

Project Description:
In collaboration with Washington State, the Spokane Regional Health District (SRHD) is undertaking efforts to decrease the risk of cardiovascular disease in Spokane County, through the Sodium Reduction in Communities Program (SRCP). In 2014, SRHD partnered with Sodexo’s ZagDining operation at Gonzaga University to reduce sodium in targeted foods. Approximately 2,800 students, staff, and faculty rely on the cafeteria for meals; each week, the cafeteria serves about 23,500 meals.

Sodexo demonstrates its commitment to serving customers’ dietary needs with Simple Servings, a kitchen line that includes menu items free of seven of the most common food allergens: peanuts, tree nuts, shellfish, wheat, soy, milk products, and eggs. As part of its comprehensive efforts to respond to students’ dietary preferences and to provide healthier options, Sodexo also offers Mindful Meals, a menu line in which each entree contains no more than 700 mg of sodium, upholding Washington’s Healthy Nutrition Guidelines for sodium reduction within state agency cafeterias.

SRHD provided technical assistance on sodium reduction, helping Sodexo staff to identify sources of excess sodium and find alternative herbs and spices for enhancing flavor in reduced sodium recipes. The technical assistance provided by SRHD sparked Sodexo staff’s creativity in taking advantage of available sodium...

Resources
- Centers for Disease Control and Prevention: Salt
  www.cdc.gov/salt
- Spokane Regional Health District
  www.srhd.org
- Washington State Department of Health
  www.doh.wa.gov

National Center for Chronic Disease Prevention and Health Promotion
Division for Heart Disease and Stroke Prevention
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reduction resources. Executive Chef Thomas Morisette trained his staff on preparing vegetarian soup bases made from scratch, thereby avoiding the need to purchase a commercial lower sodium, gluten-free and vegetarian soup base. SRHD used a sodium assessment tool that identified tomato products as an additional priority in sodium reduction for ZagDining. Chef Morisette and his team used the sodium reduction challenge as a chance to create new tomato-based recipes for ZagDining’s menu. SRHD further supported ZagDining’s progress in sodium reduction by collecting production, sales, and nutrient data over time.

**Outcomes:** Replacing purchased soup base with vegetarian soup base made from scratch has lowered sodium by an average of 67% among the seven vegetarian soups sold at ZagDining. The soup that originally contained the highest sodium levels saw a 63% sodium reduction, going from 695 mg to 257 mg of sodium per serving. Since September 2014, Sodexo has incorporated its low sodium, gluten-free vegetarian soup base into 18 of the 28 soups served throughout the year. Despite these changes, soup sales have been steady.

Furthermore, in October 2014 Chef Morisette and his staff created tomato sauce and salsa recipes using canned diced tomatoes with no added salt. This change has reduced sodium from 360 mg to 15 mg per serving—removing 96% of sodium.

In addition to reducing sodium, SRHD’s technical assistance has fostered professional development opportunities for chefs. SRHD’s trainings on sodium reduction in food preparation have helped chefs further develop their culinary skills. Vegetarian chefs committed to preparing food that tastes great have bolstered their ability to cook flavorful recipes without relying on salt. Lower sodium recipes have gotten such a positive reception among students and staff that the Gonzaga cafeteria has set a long-term goal of cooking most meals from scratch.

**Conclusions:** SRHD’s successes through SRCP demonstrate the importance and rewards of working with food service providers and culinary professionals. Understanding and building upon chefs’ motivations in developing menus can facilitate cafeterias’ uptake of sodium reduction strategies. SRHD’s experience emphasizes the value of raising food service professionals’ awareness about sodium levels within processed foods and of providing chefs with training on ways to prepare lower sodium food. Learning to reduce sodium can help chefs build on existing skills and take pride in creating quality recipes that have a positive effect on their customers’ health.