Problem

In Steuben County, New York, rates of high blood pressure are higher than the national average. Consuming too much sodium can lead to high blood pressure, a leading risk factor for heart disease and stroke.

Project

In 2014, Steuben County Public Health (SCPH) partnered with three hospitals and two senior meals programs to make changes in food preparation and purchasing practices to lower sodium content by 10% each year over 3 years.

Outcomes

From January to August 2014, SCPH’s efforts led to reduced sodium in 80 meals across all sites—73 of 80 total senior meals served and 7 of 20 hospital meals.

Statement of Problem: The 2010 Dietary Guidelines for Americans recommend that people consume no more than 2,300 milligrams (mg) of sodium per day. However, 9 out of 10 Americans consume too much sodium—on average, 3,500 mg per day, far above the recommended limit. A diet that is too high in sodium can increase people's risk of developing high blood pressure (also known as hypertension), a major risk factor for stroke and heart disease.

Steuben County, New York, is home to about 99,000 people, and about 17% are aged 65 years or older. In 2009, hypertension rates among all adults in the county were above 31%, and the rate was 68% for adults aged 65 years or older.

Steuben County, like the state of New York and other states, faces significant hypertension and cardiovascular disease burdens. In 2012, about 31% of all adults and 62% of adults aged 65 years or older in New York State had high blood pressure; across the United States, 29% of all adults and 69% of adults aged 60 years or older suffered from hypertension. Meanwhile, more than 7% of all adults and nearly 25% of adults aged 65 years or older residing in Steuben County had cardiovascular disease.

When sodium intake is reduced, blood pressure begins to fall within weeks, on average. Sodium reduction is a powerful strategy for reducing high blood pressure and cardiovascular disease.

Project Description: Steuben County Public Health (SCPH) is leveraging its existing partnerships with local health systems to increase the availability of and access to lower sodium options in hospital cafeterias and senior meals programs. In 2014, SCPH partnered with three hospitals and two senior meals programs to make changes in food preparation and purchasing practices through CDC's Sodium Reduction in Communities Program (SRCP).

Sodium reduction efforts in senior meals programs and hospitals affect a significant portion of Steuben County’s population. The senior meals programs collectively feed about 3,400 adults aged 60 years or older, and the hospital system serves more than 22,000 employees, patients, and nursing home residents.

SCPH partnered with nutritionists, dietitians, chefs, and food service managers to conduct nutrient and kitchen analyses within all senior meals programs and hospitals, with the goal of reducing sodium by 10% each year over 3 years for each venue. The assessments included product inventories to determine the amount of sodium per serving for meals within the venues; interviews with staff to assess preparation and presentation practices; and pantry and kitchen observations. SCPH used findings from these assessments to help its partners identify ways to reduce sodium. The resulting strategies reflect the diverse nature of the venues and their specific needs:

- **Changing preparation practices**, including avoiding or reducing added salt and salty foods, such as bacon and cheese.
- **Changing purchasing practices**, including replacing soup bases with lower-sodium alternatives, using lower-sodium meats, buying lower-sodium soy and marinara sauces, and sourcing lower-sodium bread products.
- **Removing high-sodium menu items** from meal offerings if ingredients could not be replaced or it was not feasible to omit or reduce added salt.
- **Changing portion sizes**, such as reducing the amount of salad dressing served in senior meals programs and serving smaller bagels in hospital cafeterias.

Resources

- Centers for Disease Control and Prevention: Salt www.cdc.gov/salt
- New York State Department of Health www.health.ny.gov
- Steuben County Public Health www.steubencony.org/pages.asp?PGID=36
Outcomes: From January to August 2014, SCPH and its partners made significant strides toward sodium reduction, successfully lowering sodium content within a number of foods. One hospital reduced sodium by about 24% across six of its offerings; the system's remaining two hospitals reduced sodium by 21% and 16% by targeting key ingredients, such as soup bases, meats, and cheeses. Sodium reduction varied by meal, with one meal containing nearly 46% less sodium after the changes.

In one senior meals program, SCPH and its partners achieved an average sodium reduction of 10% across all hot and cold meals served. Where staff made multiple changes or substitutions within individual meals, sodium reduction was dramatic. Switching to a lower-sodium soup base and a lower-sodium turkey option, for example, reduced total sodium in one meal by nearly 38%.

Overall, sodium reduction efforts affected 80 meals across all sites—73 of 80 total senior meals served and 7 of 20 hospital meals.

Lessons Learned: By working with partners to implement sodium reduction strategies, SCPH staff learned valuable lessons. The search for lower-sodium alternatives brought about a surprising discovery: Lower-sodium options are not always labeled “low sodium.” By reading nutrition labels, SCPH identified pizza sauce and turkey substitutes that contained less sodium than similar items that were labeled as low sodium. SCPH also learned that working with manufacturers and suppliers is important for lowering sodium in products and adjusting prices to fit venue budgets.

SCPH found that reducing sodium gradually was an effective strategy. By making changes in menu offerings over time, rather than all at once, the programs avoided some potential challenges. For example, venues that had limited staff available to research ingredient alternatives or implement new processes found that it was easier to make partial menu changes to reduce sodium.

Conclusions: SCPH’s work with hospitals and senior meals programs demonstrates that sodium reduction strategies can be successful. SCPH plans to expand sodium reduction efforts to four additional local hospitals and two senior meals programs that serve Steuben and surrounding counties.

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