Salt-reduction program helps rural China decrease sodium intake

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People in rural northern China reduced their salt intake after participating in a community-based sodium reduction program and having access to salt substitutes, researchers reported in a late-breaking clinical trial at the American Heart Association's Scientific Sessions 2013.

"We identified a low-cost, practical intervention that was effective in reducing sodium intake," said Nicole Li, Ph.D., study author and research fellow at The George Institute for Global Health in Sydney, Australia. "The World Health Organization and other groups have identified population-based approaches to salt reduction as among the most cost-effective possible strategies for vascular disease prevention in both developed and developing countries."

Researchers with the China Rural Health Initiative - Sodium Reduction Study assessed 120 villages in which the average sodium consumption is 4.7 to 5.9 grams per day—far more than the World Health Organization's recommended 2 grams per day maximum. Americans eat an average of 3.4 grams per day.

Sixty villages receive no intervention and continued with their usual practices.

Citizens of the remaining villages received community health education advising lower sodium intake, with special messages for residents at high risk of heart disease. In addition, a potassium-containing, reduced

sodium salt substitute was promoted through a health education program and in village convenience stores. These 60 villages were further divided at random with 30 receiving a price subsidy for the salt substitute, and 30 getting the substitute at full price, which is about twice that of regular salt.

After 18 months, researchers examined 24-hour urine samples of 20 people from each village for sodium and potassium intake.

Those in villages who received the intervention:

- Reduced daily sodium intake by 13 mmol (millimoles) compared with non-intervention villages. Seventeen mmol equals about 1 gram of salt.
- Decreased daily sodium by 17 mmol in villages with price-subsidized salt substitutes.
- Increased daily potassium intake by 7 mmol on average across all villages with the intervention.
- Increased daily potassium intake by 9 mmol in villages with price-subsidized salt substitutes.

"The study findings could be applied in similar settings around the world in which salt added during food preparation at home comprises a significant proportion of daily sodium intake," Li said.

The researchers are conducting a larger, five-year study in the same region to determine whether this sodium-reduction intervention impacts incidence of high blood pressure and stroke.

The American Heart Association recommends a diet with less than 1,500 mg (1.5 g) of sodium per day to reduce the risk of cardiovascular diseases. It is estimated that if Americans cut their average sodium intake to the recommended amount, high blood pressure rates would

decrease nearly 26 percent and healthcare costs would drop by more than $26 billion in a year, the association said.

Provided by American Heart Association