Don't Take it With a Grain of Salt: The Effect of Global Sodium Reduction Strategies on the Sodium Intake of Canadians

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Received October 15, 2019

Accepted for publication December 1, 2019

Abstract

Introduction: Currently, sodium consumption of Canadians (2760 mg/day) exceeds the 2300 mg/day tolerable upper level putting Canadians at risk for hypertension and cardiovascular disease. Voluntary sodium reformulation strategies have been implemented in Canada, the United Kingdom (UK), United States (US) to reduce sodium intake from processed foods. The potential for sodium reformulation to reduce sodium intake across socioeconomic position (SEP) is not well understood. The objective of this study was to evaluate the extent to which fully achieving sodium reformulation targets for processed foods outlined in the Canada, UK, US strategies would decrease population and social inequities in sodium intake in Canadian adults.

Methods: A cross-sectional study was conducted using the 2015 Canadian Community Health Survey–Nutrition (n=13,519 participants aged ≥19 years, 53% females). Foods from the 24-hour dietary recall were matched to each country's sodium reduction categories and target sodium levels were applied. Multivariable linear regressions were used to estimate mean sodium intake for the population and across SEP indicators (educational attainment, household food security, and household income adequacy quintiles).

Results: Achieving Canada's targets would reduce average sodium intake by 228 mg/day (95%CI: 196,260) compared to baseline. UK's sodium targets would achieve greater reductions, decreasing average sodium intake by 270 mg/day (95%CI: 242,299). The US sodium targets would increase average sodium intake by 98 mg/day (95%CI: 64,132). Achieving sodium reformulation targets resulted in greater reductions in sodium intake in men, and in lower SEP groups. For example, educational inequalities in sodium intake observed at baseline were reduced in men [Canada: (RD: 148 mg/day, 95%CI: -30,327); UK: (RD: 152 mg/day, 95%CI: -43,347)] and eliminated in women.

Conclusion: Achieving targets outlined in Canada and UK's voluntary sodium reformulation strategies would significantly reduce mean sodium intake in Canadians. This study demonstrated the potential for reducing social inequities in sodium intake and health.