A reduction in salt intake of 3 g per day could have an impact on cardiovascular disease and reduce all-cause mortality in the United States by an estimated 44,000 to 99,000 deaths each year, according to study findings.

“A reduction in dietary salt of 3 g per day would have approximately the same effect on rates of coronary heart disease (CHD) events as a 50% reduction in tobacco use, a 5% reduction in body mass index among obese adults, or the use of statins to treat persons at low or intermediate risk for CHD events,” the researchers wrote.

Dr. Kirsten Bibbins-Domingo of the University of California, San Francisco, and colleagues used a computer simulation model to predict the effects of a population-wide reduction of salt intake on cardiovascular events in the United States (NEJM 2010 Jan. 20 [Epub doi: 10.1056/NEJMoa0907355]).

Reducing daily dietary salt by 3 g would reduce the number of new cases of coronary heart disease per year by an estimated 60,000 to 120,000, according to the computer model. New cases of stroke would be reduced by 32,000 to 66,000, and new cases of myocardial infarction would be reduced by 54,000 to 99,000.

Cutting daily salt consumption would benefit adults of all ages, both genders, and all race groups, according to the model, but “the anticipated relative benefits among blacks would be greater than those among nonblacks across all age groups and both sexes,” the researchers noted.

The model predicted that, although all age groups would benefit, middle-aged and older populations would likely have larger relative reductions in CHD incidence and in rates of new and recurrent myocardial infarction and stroke.

In adults aged 35 to 64 years, the relative reduction in mortality would be approximately 7% for blacks and 3-6% for nonblacks.

In addition, a nationwide 3 g per day decrease in salt consumption would save approximately $10 billion to $24 billion in health care costs annually and add approximately 194,000 to 392,000 quality-adjusted life years.

The researchers acknowledged that the results were limited by the uncertainty of the data used in the model, but add that, despite those limitations, their findings build on those from previous studies.

“Our findings underscore the need for an urgent call to action that will make it possible to achieve these readily attainable cardiovascular benefits,” they said.

The results also showed positive, although less dramatic, improvements in all-cause mortality, CHD, stroke, and myocardial infarction with reductions of daily salt intake by either 1 g or 2 g. As salt intake is reduced, people appear to prefer food with less salt, a phenomenon that is probably related to the accommodation of taste receptors over the course of weeks to months,” the researchers noted.

The benefits seen in the study may be an underestimate, according to an accompanying editorial by Dr. Lawrence J. Appel and Cheryl A.M. Anderson, Ph.D., of Johns Hopkins University in Baltimore. The study did not factor in the impact of modest daily salt reduction on reducing blood pressure in children or mitigating age-related rise in blood pressure in adults, they wrote (NEJM 2010 Jan. 20 [Epub doi: 10.1056/NEJMe0910352]).