Sodium intake and cardiovascular disease: The PURE study and future directions

Policy positions on salt consumption (based largely on the association of sodium and blood pressure [BP]) has remained unchanged since the 1970s, until recently. However, this is beginning to change as new evidence emerges. The evidence from the recent PURE study and other cohort studies supports a strong association of sodium with BP and cardiovascular disease events in hypertensive individuals, the elderly, and those who consume > 6 g/d of sodium. However, there is no association of sodium with clinical events at 3 to 6 g/day and a paradoxical higher rate of events at < 3 g/day. Therefore, until new evidence emerges, the optimal range of sodium consumption should be considered to be between 3 and 6 g/d. Population-wide sodium reduction is not justified in countries such as Canada.

Dr. Mente received his doctoral degree in Epidemiology from the University of Toronto. He completed post-doctoral training in cardiovascular epidemiology at McMaster University, and is currently an Associate Professor in Clinical Epidemiology and Biostatistics at McMaster University. He has received a Research Fellowship from the Heart and Stroke Foundation of Canada, and a Research Early Career Award from Hamilton Health Sciences. Dr. Mente is currently working in the Population Urban and Rural Epidemiological (PURE) study, and is interested in the role of essential minerals (sodium, potassium, calcium, magnesium) in hypertension and cardiovascular diseases in populations around the world. He is particularly interested in finding simple, practical and accurate ways to measure sodium and potassium intake in diverse populations, determine how much sodium people are consuming in these populations, identify an international reference range for sodium and potassium intake, and test whether the impact of sodium consumption on blood pressure and cardiovascular diseases varies across populations subgroups.