**What are the potential health gains and policy implications of the World Health Organization recommendation on population-wide salt reduction by 2025?**

**Presenting author:** Leopold N. Aminde, M.D.

Faculty of Medicine, School of Public Health, The University of Queensland, Australia & Clinical Research Education, Networking & Consultancy (CRENC), Cameroon. Tel: +61 434518991, Email: amindeln@gmail.com

**Co-authors:** Linda Cobiac, J. Lennert Veerman

**Background:** Premature mortality from cardiovascular disease (CVD) is greatest in the low-income and middle-income countries. To address this growing CVD and non-communicable disease burden, the World Health Organization (WHO) recommended among others a 30% relative reduction in salt consumption as a population preventive strategy to reduce blood pressure and CVD for countries. To date, there is limited evidence from Africa on the impact of this policy strategy.

**Aim:** To estimate the potential impact on population health if Cameroon achieved this salt reduction recommendation by the year 2025.

**Methods:** With 2016 as base year, and data from the Global Burden of Disease 2016 study, we use a proportional multi-state lifetable model to estimate changes in burden of CVD in Cameroon over 10 years (from 2016 to 2025) if populations reduce their salt intake. Uncertainty in our estimates was assessed using probabilistic sensitivity analysis.

**Results:** If this salt reduction strategy is achieved, our modelling predicts that by 2025, there will be 15,500 (95%UI: 14,000 – 17,000) fewer incident cases of ischemic heart disease (7.3% reduction), 5,000 (95%UI: 4,500 – 6,000) fewer new cases of haemorrhagic stroke (9.4% reduction), 6,000 (95%UI: 5,800 – 6,200) fewer incident cases of hypertensive heart disease (16.9% reduction). Mortality will reduce by 3,400 (95%UI: 3,000 – 3,800) for ischemic heart disease (6.4% reduction), 3,100 (95%UI: 2,700 – 3,500) for haemorrhagic stroke (9.5% reduction), and 950 (95% UI: 900 – 1,100) for hypertensive heart disease (15.7% reduction). In addition, 29,000 (95%UI: 27,000 – 32,000) health-adjusted life years (HALYs) would be gained. Probability of premature mortality from CVD is similarly predicted to decrease while life expectancy would increase for both men and women.

**Conclusions:** Substantial health gains could be made if populations reduced their salt consumption in line with WHO recommendations. This would translate to reduction in catastrophic health expenditure and reduced healthcare costs. These findings are very useful for health policy makers in Cameroon and Africa as they work towards initiating universal health care programs and contemplate on cost-effective measures for primary prevention of CVD.