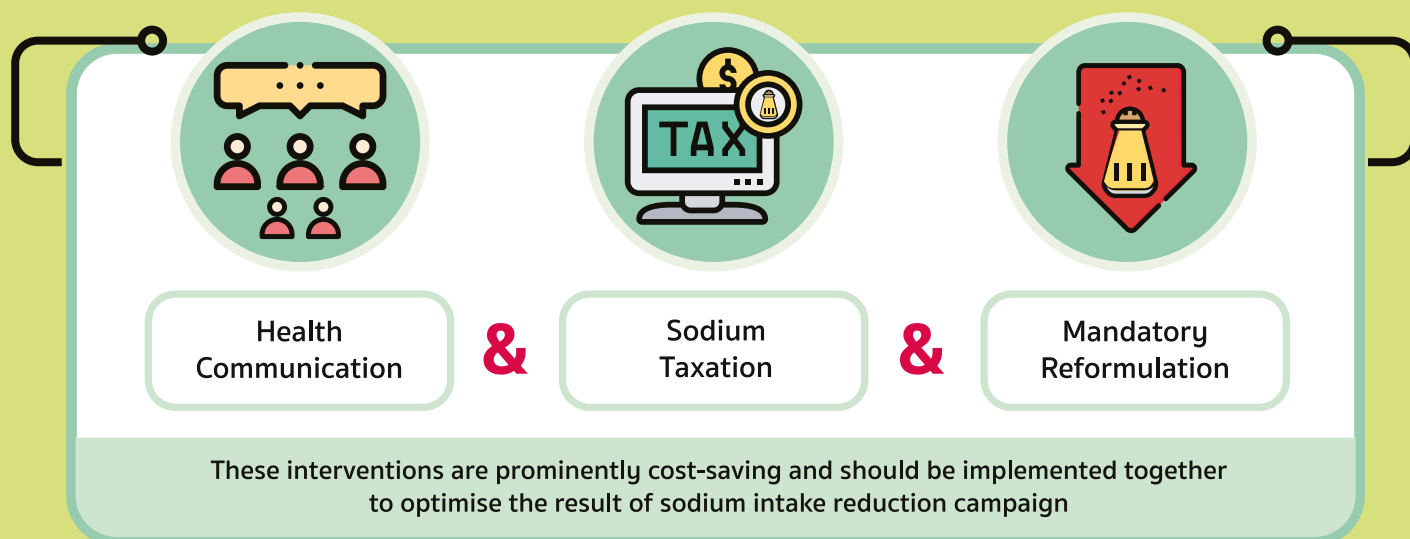










Cutting Future Healthcare Cost through Population-wide Sodium Reduction Policy

Excessive intake of sodium is associated with elevated blood pressure – a risk factor that contributes to non-communicable diseases such as hypertension, coronary heart disease, cerebrovascular disease, chronic kidney disease and risk of developing stomach cancer. Population-wide policies to control sodium intake were shown to reduce sodium consumption and blood pressure globally. In Thailand, the recent study of cost-effectiveness of sodium reduction policies by HITAP has shown appropriate options for decision-making.



All policies are cost-saving

Estimated impact of the policies over 10-year period	 Health Communication	 Sodium Taxation	 Mandatory Reformulation	 Nutrition Labelling	 Food Subsidy	 Voluntary Reformulation
Death averted (people)	119,208	110,173	109,053	83,244	77,962	75,578
Policy cost (million THB)	27	3	10	62	n/a	10
Societal gained (million THB)	70,730	61,645	60,527	34,597	29,202	26,802
Quality-adjusted life year (QALY) gained	660,121	596,005	588,049	404,361	366,680	349,664
Cost of sodium-related diseases without policies	2.28 trillion THB, with the majority of costs were costs of renal replacement therapy for end-stage renal disease patients					

This study did not take costs incurred by the food industry nor any from other sectors than healthcare into account. It is suggested in the study that any sodium reduction intervention cost of up to 2.9 billion THB a year would still be considered as cost-saving. It was projected from the model that the total cost of sodium-related diseases — including direct medical cost and direct non-medical cost – was estimated to be around 2.28 trillion THB over the next 10-year period if there is no population-wide policies to control sodium intake.

About this research

The objective of this study was to estimate the cost-effectiveness of policy options for dietary sodium intake control in Thailand. Population-based Markov model was built to link the intermediate clinical outcome—i.e. systolic blood pressure—to estimate the cost to the final outcome (QALY) of sodium-related diseases, which were hypertension, coronary heart disease, cerebrovascular disease, chronic kidney disease and stomach cancer. The transitional probability of cardiovascular diseases and chronic kidney diseases was estimated from the only long-term cohort Thai population, reflecting the use of local data. Healthcare costs of diseases related to excess sodium intake were based on health administrative databases from the National Health Security Office, reflecting the national treatment standard and the actual healthcare burden. Policy effectiveness was retrieved from a systematic review of sodium reduction policy. The societal perspective and lifetime time horizon were applied. All future costs and benefits were discounted at the rate of 3% per annum following the recommendation of the Thai health technology assessment guideline. All costs were presented in year 2019 THB values (implied PPP conversion rate 1 US\$ = 12.24 THB).



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For more information about the research

<https://www.hitap.net/research/177204>



This paper is a part of a research project entitled
A cost-utility analysis of policy options for dietary
sodium intake control in Thailand

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HITAP is a semi-autonomous research unit under Thailand's Ministry of Public Health. HITAP's core mission is to appraise a wide range of health technologies and programmes, including pharmaceuticals, medical devices, interventions, individual and community health promotion, and disease prevention as well as social health policy to inform policy decisions in Thailand. HITAP also works at the global level with overseas development aids, international organisations, non-profit organisations, and overseas governments to build capacity or health technology assessment, e.g., International Decision Support Initiative (iDSI).



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