Diets high in salt (sodium) are associated with a high burden of hypertension, premature death and disability

- The Global Burden of Disease Study, estimated that in 2013, there were 3.7 million deaths, 68 million years of life lost, and 74 million years of disability (DALYs) as a result of excess dietary salt. (Institute for Health Metrics and Evaluation, 2015 University of Washington, http://vizhub.healthdata.org/gbd-compare/, accessed Dec 22 2015)
- One half of blood pressure related disease occurs in people with raised blood pressure within the normal range. However, high dietary salt increases blood pressure in this normal range and in those with hypertension.
- High dietary salt causes an estimated 30% of hypertension or over 300 million people to have hypertension (1;2).
- Increased blood pressure is a leading preventable risk factor for heart disease (heart attack and heart failure), stroke, and kidney failure; and a major contributor to premature death, dementia, disability and health care costs (2).
- Other diseases that have been associated with high salt intake include gastric cancer (probable procarcinogen), total cancer, recurrent kidney stones (causal association), osteoporosis, obesity, fatty liver, headache, multiple sclerosis, rheumatoid arthritis, cataracts, infertility, and direct renal, vascular and cardiac damage (3-11).

Globally people consume too much salt
- The recommended daily intake level of salt for healthy adults is less than 5 g/day (sodium less than 2000 mg/day), with lower levels in children based on their lower caloric needs (12).
- The average intake of salt per adult globally is about 10 g/day (sodium 4000 mg/day), with higher intakes in Asia (13).
- Salt intake in fully developed economies largely comes from pre-packaged, processed and restaurant foods; in undeveloped economies, the largest source is ‘discretionary’ and added in cooking and at the table. Only a small portion is naturally found in food (salt < 2.0 g/day or sodium <800 mg/day in a meat/vegetarian diet, and salt < 1.25 g/day or sodium <500 mg/day in a vegetarian diet). In developing economies, globalization of the food industry (nutritional transition) is increasing the exposure of populations to salt in processed foods (14;15).

There is a strong consensus that reduction in dietary salt saves lives, health care resources and dollars
- Reducing dietary salt is one of the most impactful and cost effective mechanisms to improve population health, and is considered one of the WHO’s ‘best buys’ to prevent chronic disease (14;15).
- Noncommunicable diseases threaten the global economy and economic development and led the World Health Assembly to support 9 targets for prevention and control – including a key recommendation to reduce dietary salt by 30% (16).
- Repeated comprehensive critical appraisals of the literature under the auspices of national governments and high profile scientific organizations uniformly conclude that dietary salt needs to be reduced and that high dietary salt causes disease (12;17-39).
- Controversy surrounding dietary salt reduction is largely related to competing commercial financial interests and the use of weak research methods (especially the use of single spot urine samples to estimate usual salt intake) (40-43). The use of a spot urine to assess an individual’s usual salt intake is not recommended (44).

Keeping up to date on the evolving evidence on dietary salt and how to reduce dietary salt
- The World Hypertension League with other national and international partners and the Journal of Clinical Hypertension have developed multiple mechanisms to have the evidence on dietary salt maintained up to date.
A more regularly updated critical appraisal and update of the evidence on dietary salt, outcomes, and programs to reduce dietary salt is published in the *Journal of Clinical Hypertension* (46;47).

**Approaches to reduce dietary salt need to be strengthened globally**
- Governments in most countries need to take action to develop and implement multi-sectoral national strategies to reduce salt
- Industry-based voluntary approaches to reduce salt additives to food that do not have strong government oversight and close monitoring have a long history of being ineffective (21).
- Regulatory approaches are most effective while voluntary approaches with strong government oversight have had some success (21;33).
- Public education is important especially where discretionary salt is the major dietary source (48).
- Close monitoring of salt intake, sources of salt in the diet, salt levels in foods, as well as knowledge, attitudes and behaviours of the public are essential components of salt reduction programs (49).
- Integrating efforts to reduce dietary salt with those to increase dietary potassium and prevent iodine deficiency through salt fortification are important to optimize population health (50;51).

**National hypertension and cardiovascular organizations**
- Hypertension and cardiovascular organizations have important roles in research, education and advocacy.
- Promote research, presentations and publications on high quality research related to dietary salt emphasizing the importance of high quality research methodology and interpretation that is free of commercial bias.
- Educate members on the health risks of high dietary salt and how to reduce salt intake.
- Broadly disseminate relevant literature on dietary salt to the public.
- Educate policy and decision makers on the health benefits of lowering blood pressure among normotensive and hypertensive people, regardless of age.
- Advocate for policies and regulations that will contribute to population-wide reductions in dietary salt.
- Provide opportunities for members to be involved in advocacy. Promote and advocate through media releases on dietary salt reduction to reach the public.
- Promote coalition building, increase organizational capacity for advocacy, and develop advocacy tools to promote civil society actions.
- Be cautious about the role of low quality research and of commercial conflicts of interest in generating controversy related to dietary salt reduction.
The World Hypertension League Actions

- The World Hypertension League and the International Society of Hypertension have developed a policy statement to support the WHO recommended salt intake levels (37).
- The World Hypertension League has developed annual certificates of excellence and of notable achievement to recognize organizations and individuals who have contributed to efforts to reduce dietary salt at the population level (52).
- Assisting the global and national efforts to reduce dietary salt is a top priority of the World Hypertension League.

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