

National Committee for Nutrition

Salt in the diet: the elephant in the room - why health professionals need a shake up

Over 80 delegates attended this one-day symposium held in the offices of the George Institute for International Health in Sydney on August 13th 2009. The symposium was sponsored by the Australian Academy of Science (AAS) and the Nutrition Society of Australia, Sydney Group. **Professor Jennie Brand-Miller, Chair of the AAS National Committee on Nutrition**, welcomed everyone to the event and outlined the objectives as to:

- raise consumer and health professionals' awareness of the health consequences of excessive salt intakes and;
- disseminate strategies which could be implemented at a federal, state and community level to reduce dietary salt intakes.

Professor Brand Miller highlighted the fact that the current focus on obesity meant that excess salt intakes and the associated health problems were often overlooked and said that she hoped the meeting today would help to raise awareness of the need for urgent action.

A range of informative presentations followed. **Stewart Truswell from the University of Sydney** provided a fascinating overview of the history of salt from the development of the 1st sphygmomanometer to measure blood pressure in 1896. Professor Truswell said that the food industry response back then was no different to today and that the legal and publicity work of the Salt Institute has always worked hard to keep the regulators at bay despite the clear evidence supporting the need for action.

Prof George Jerums from the **University of Melbourne** presented three papers on the link between salt and type 2 diabetes. He stressed the importance of salt consumption being characterised in the diabetic population because of the potential increased cardiovascular risk in patients with type 2 diabetes.

Dr Jennifer Keogh, Accredited Practicing Dietitian and Research Scientist at CSIRO also made the case that people with diabetes who are at greater risk of heart disease and stroke have high salt intakes and that action is needed to reduce this. She highlighted

limited recent data on salt intakes and sodium excretion in adults which highlighted the need for 21st century population information on sodium intake and excretion.

Dr Russell Keast, Faculty of Health, Medicine, Nursing & Behavioural Sciences, Deakin University discussed salt taste and the multiple effects of NaCl on flavour including: adding saltiness; reducing bitterness; and enhancing sweetness and other positive flavours.

Jacqui Webster, Senior Project Manager, George Institute for International Health said that getting the labelling right for salt is one of the three main objectives of the Australian Division of World Action on Salt and Health's Drop the Salt! campaign. She provided an overview of the literature on salt and labeling and said %DI doesn't currently help consumers reduce salt intakes.

Ms Robyn Speerin, Fairfiled Cardiac Rehabilitation & Complex Cardiac Care Service outlined some of the challenges involved in ensuring people in cardiac rehabilitation were not eating too much salt. She explained how the multidisciplinary team at their centre provided outpatient support both at home and on the phone and highlighted the poor understanding of the need to reduce dietary salt intake.

Kay Gibbons on behalf of Ms Jacqui Krassie, J Krassie & Associates outlined the challenges and strategies related to salt guidelines for hospital menus based on the *Nutrition Standards for Menu Items in Victorian Hospitals & Residential Aged Care Facilities*. She said the guidelines were based on a philosophy that nutrition should be provided from food and that supplements should be avoided where possible.

Dr Geoffrey Annison, Australian Food and Grocery Council, said the food industry was well prepared to face the salt reduction challenge and recognized that consumers can adapt to lower salt foods. He highlighted AWASH as a good example of the public health sector working with the food industry and said the food industry supported the need to set targets for nutrients in foods in parallel with raising consumer awareness.

Associate Professor Stephen Corbett Centre for Population Health, Sydney West Area Health Service discussed regulatory approaches to salt reduction and emphasised that we shouldn't be bound by the polarities of traditional government regulation versus no regulation. He highlighted the work of AWASH as a form of NGO-initiated governance and the ILSI Science of Salt seminar which showcased

industry innovation in manufacturing low salt products, as one step towards building a “strengths-based” pyramid to encourage industry action.

Susan Anderson outlined the **National Heart Foundation’s** salt cutting strategies including advice to consumers, working in partnership with AWASH to push for mandatory salt labelling, social marketing campaigns and effective FOPL, regular nutrition surveys including accurate measurement of sodium intakes. She said NHF was pushing for Government to set reformulation targets for industry to reduce sodium in parallel with other nutrients. She encouraged the food industry to work with the Tick Program to meet nutrition standards in the retail and food service areas.

Each speaker was asked to identify three priorities for action. The themes that emerged were as follows:

Government leadership

- Establishing population targets for salt intake
- Leading product changed by fostering a “strengths-based” approach to salt reduction by the food industry predicated initially on a commitment to voluntary rather than mandatory compliance with compositional standards
- Integrating consumer salt messages with other proposed dietary interventions
- Setting national standards for nutrition in health care settings

Coordinated food industry action

- Reformulation to reduce salt working towards agreed targets and taking into account overall nutritional profile of foods and portion control across the food chain
- Raising awareness of issues of composition at production unit and tendering level
- Identifying and sharing experience of ways to make it easier to reduce salt in the food supply both in retail and catering settings
- Including salt sachets in potato chips so that people can add salt at will
- Having low salt varieties of all food products in shops

Consumer education

- Implementing simple dietary education strategies
- Providing practical solutions for consumers to reduce sodium intake
- Integrating salt reduction into dietary management for people with type 2 diabetes
- Educating professionals; especially doctors, diabetes educators and individuals with diabetes
- Using the media to get across population health messages

- Highlighting hypertension as the leading cause of heart disease and stroke
- Highlighting the relationship between salt, fluid retention and heart workload

Improving labelling practice and legislation

- Removing the GRAS status of NaCl as a food flavouring ingredient
- Labelling potassium chloride as well as sodium/salt
- Implementing a Front of Pack labelling scheme to assist in the selection of healthier foods including highlighting the salt content
- Making sure labelling legislation not disincentive to reformulation

Strengthening the evidence base on effective solutions

- Commissioning further research into salt taste enhancers
- Including 24hr urinary sodium excretion to gauge dietary salt intakes as part of diet and nutrition surveys
- Establishing stronger data on product composition, market volume and dietary intakes to allow categories and populations to be “targeted”.

During the panel discussions questions were raised about the availability of low salt foods for hospital menus and there was a call *for retailers to market low salt food and increase availability.*

There was a suggestion from the floor for *routine screening of every diabetic for sodium intake.* The fact that not many of the foods with the NHF Tick meet the criteria for low salt was highlighted and it was acknowledged that, whilst dietary education strategies may result in positive outcomes for the small groups involved, *population-wide interventions led by government and the food industry were needed to have a significant impact on population health.*

It was suggested that *further consideration needed to be given to how salt could be integrated into the discussions on how to tackle obesity* as this was already a political priority. One way of doing this might be to push for *product composition targets* for all key nutrients, not just salt, and *to integrate salt messages into wider social marketing strategies on nutrition* including the promotion of increased fresh fruit and vegetables and less processed foods which would address both excess salt consumption and obesity.

There was considerable discussion about whether *labels should include salt or sodium* and how you deal with the fact that not all sodium in foods is salt if you want to label salt.

It was pointed out that sorting out the discrepancy with the measurements is minimal and should not be a barrier.

There was a brief discussion about the likely impact of the FSANZ iodisation policy which highlighted *the importance of communicating the need for people to reduce salt intakes as part of any communication around the iodisation issue* as well as examining alternative vehicles for iodine fortification in the longer term.

The extent to which the existing food regulatory and health governance systems were capable of addressing this issue was raised and it was acknowledged that government involvement didn't necessarily have to mean regulation, it could simply mean leadership.

It was suggested that the social marketing proposals being developed by government would include salt but not as a single issue. The importance of promoting products with the Tick was highlighted but the effectiveness of providing healthier alternatives versus implementing across-the-board reductions was questioned. Whilst the food industry tended to favour variance (i.e. low salt or fat options) it was increasingly focused on the need for health positioning of all products. There was a general agreement that a way forward was the establishment of targets for benchmarking products in relation to nutrient levels and a suggestion that the NHF Tick criteria should be used as the basis from which to develop such targets.

The importance of the population dietary surveys being planned for 2010 including urinary analysis so that there was an accurate measurement of sodium was also again raised.

Public Lecture: 'Should you be eating that much SALT?'

The day concluded with a formal lecture from Professor Bruce Neal, Senior Director at the George Institute for International Health and Chairman of AWASH. Professor Neal highlighted that the physiological need for salt was only 1-2g per day but that in most countries people are eating 5-10 times more than this with a range of adverse consequences for health. He explained that salt had overall net benefit to health for several millennia but with the advent of refrigeration the beneficial effects of salt are now outweighed by harms. Humans are addicted to salt and it is causing an enormous burden of preventable disease.

Professor Neal highlighted the range of evidence to support the case that salt raises blood pressure which leads to an increased risk of cardiovascular disease and stroke. He said that cardiovascular disease was the second leading cause of death in Australia (after cancer) and that high blood pressure was the second leading cause of disease burden (after tobacco). He went on to say that this was despite the huge prevention effort and expenditure targeted at blood pressure.

He highlighted the Australian Hypertension Guidelines published by the National Heart Foundation and regularly updated to international standards. He suggested that the problem nevertheless persists, partly because it is so big in the first place but also because our existing strategies are only having a limited impact.

Professor Neal went on to demonstrate this by explaining that the linear relationship between blood pressure and stroke means that targeting people with clinical hypertension (i.e. a systolic blood pressure of $>140\text{mmHg}$), means that you miss many people who are at increased risk but not diagnosed as hypertensive. In other words, there are a few people with a high risk and a lot of people with a low risk which results in a similar number of people suffering from heart attack and stroke from the low risk group as the high risk group. Put another way, half of all disease caused by blood pressure occurs in people with hypertension and half of all disease caused by blood pressure occurs in people *without* hypertension.

So, the existing guidelines for the management of hypertension can only impact at most on 50% of the total disease burden resulting from high blood pressure. In 2000 an estimated 27% Australian adults (>25 years) had hypertension but only 47% of those were being treated. This means that the disease burden actually addressed in Australia by treating people with hypertension is reduced to 24%. However, only 40% of the 24% being treated respond to the treatment effectively which means that the total disease burden actually effectively addressed by achieving blood pressure targets for people with hypertension is only 9% and as very few of those are likely to reach optimal blood pressure it will in fact be substantially less.

By targeting high risk groups as well as people suffering from hypertension, as is often the case now, we are likely to avert many more deaths but it is difficult to know how many. Hypertension programmes currently cost about A\$1 billion each year – about 0.5 billion on drugs and about 0.5 billion on salary support for medical practitioners to diagnose, prescribe and monitor.

Professor Neal said that the way forward was to switch the thinking to blood pressure and focus new efforts on strategies that address more of the disease burden caused by blood pressure. This includes salt as well as obesity, physical activity and the promotion of fresh fruits and vegetables. A national salt reduction strategy would target 100% of the disease burden caused by high blood pressure. Reducing salt intake by 3g per day would immediately lower population systolic blood pressure by about 5mmHg resulting in a reduction of stroke risk by 15% and a reduction of coronary heart disease risk by 9%. A national salt reduction program would also be very low cost about A\$10-20M per annum for Australia; i.e. 1-2% of the cost of existing hypertension management strategies.

Professor Neal went on to explain why salt reduction was such a good policy option as a result of the cumulative effects of lowering blood pressure over time with the immediate large shift in population distribution of blood pressure being followed by additional progressive smaller declines each year. So, for the initial \$A10-20 million a year you could achieve a 3-4mmHg fall in blood pressure over five years, resulting in a 15-20% reduction in premature vascular disease. \$A1-2 million a year after this would lead to an additional 10-15mmHg fall in blood pressure over 40-50 years resulting in a more than 20-30% reduction in premature vascular disease overall.

Professor Neal stressed that the only effective way to reduce population salt intakes was through changing the environment rather than trying to get people to make different choices. He outlined the main strategies as food industry action to reduce salt in foods, government leadership to establish targets for salt levels in foods, FOPL and initiatives such as school canteen policies. He stressed that third party monitoring of compliance was essential to guarantee effective progress. He concluded that the potential impact was enormous and that plausible salt reduction programs have greater potential to avert premature death and disability than tobacco control.

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Copies of the presentations from the conference are available on the AWASH website at www.awash.org.au