# 'Steering' Private Regulation? A New Strategy for Reducing Population Salt Intake in Australia

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## Abstract

Excess salt consumption represents a significant threat to health, in light of the established link between salt intake, blood pressure and cardiovascular disease. Salt reduction programs could significantly reduce death and disability by reducing average blood pressure across the population. In 2009, the Australian Department of Health established the Food and Health Dialogue, which uses salt reduction targets to guide voluntary product reformulation by the food industry. However, the Dialogue lacks many of the features of the United Kingdom's more successful program, and research suggests that it has failed to significantly improve the quality of the Australian food supply. This article presents a new strategy for reducing population salt intake in Australia. Acknowledging the political obstacles to the imposition of mandatory standards for salt reduction, we draw on the regulatory studies literature to develop a public health governance model that incorporates a broader range of regulatory techniques. We apply this model to the challenge of reducing population salt intake by, for example, setting more comprehensive targets and performance indicators, enhancing accountability and increasing industry participation. We recommend a 'responsive' regulatory approach where the food industry's failure to meet salt reduction targets triggers progressively more stringent forms of regulation. Our strategy rests on the selective introduction of 'legislative scaffolds' to create a more demanding salt reduction program while seeking to maximise industry cooperation and capacity for innovation.

## I    Introduction

High blood pressure is the leading risk factor for mortality worldwide, affecting around 40 per cent of adults.[1] In 2010, it accounted for 9.4 million deaths (17.8 per cent of the global total) — ahead of tobacco, which caused 6.3 million deaths

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[1]    World Health Organization ('WHO'), *Global Status Report on Noncommunicable Diseases 2010* (WHO, 2011) 22 <http://www.who.int/nmh/publications/ncd_report2010/en/>.

(11.9 per cent).[2] Elevated blood pressure is progressively related to the risk of cardiovascular disease (that is, stroke and coronary heart disease), and a range of other conditions.[3] On one estimate, around 62 per cent of all strokes and 49 per cent of coronary heart disease events can be attributed to high blood pressure,[4] making it the most important cause of preventable cardiovascular deaths.[5]

The role of salt reduction in preventing cardiovascular disease is well established,[6] with reliable evidence showing that reductions in salt intake lower blood pressure in people with both normal and high blood pressure.[7] One study estimated that a 15 per cent reduction in salt intake over 10 years (2006–15) would avert 8.5 million cardiovascular deaths in 23 low- and middle-income countries.[8] The WHO recommends a daily upper limit for sodium chloride of five grams per person[9] — substantially less than the current global average of 9–12g per day.[10] Even more modest reductions in salt intake could significantly reduce mortality from stroke and heart disease, including over relatively short periods of time.[11] Current evidence suggests that dietary salt accounts for 3.1 million deaths globally each year, due to the impact of diets high in sodium in raising blood pressure.[12]

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[2]    Stephen S Lim et al, 'A Comparative Risk Assessment of Burden of Disease and Injury Attributable to 67 Risk Factors and Risk Factor Clusters in 21 Regions, 1990–2010: A Systematic Analysis for the Global Burden of Disease Study 2010' (2013) 380 *Lancet* 2224, 2238.

[3]    Pasquale Strazzullo et al, 'Salt Intake, Stroke, and Cardiovascular Disease: Meta-Analysis of Prospective Studies' (2009) 339 *British Medical Journal* b4567 <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2782060/>.

[4]    Francesco P Cappuccio and Simon Capewell, 'How to Cut Down Salt Intake in Populations' (2010) 96 *Heart* 1863.

[5]    Lim et al, above n 2.

[6]    Nancy J Aburto et al, 'Effect of Lower Sodium Intake on Health: Systematic Review and Meta-Analyses' (2013) 346 *British Medical Journal* f1326 <http://www.bmj.com/content/346/bmj.f1326?etoc=>; Feng J He, Michel Burnier and Graham A MacGregor, 'Nutrition in Cardiovascular Disease: Salt in Hypertension and Heart Failure' (2011) 32 *European Heart Journal* 3073.

[7]    Feng J He, Jiafu Li and Graham A MacGregor, 'Effect of Longer Term Modest Salt Reduction on Blood Pressure: Cochrane Systematic Review and Meta-Analysis of Randomised Trials' (2013) 346 *British Medical Journal* f1325 <http://www.bmj.com/content/346/bmj.f1325.pdf%2Bhtml>.

[8]    Perviz Asaria et al, 'Chronic Disease Prevention: Health Effects and Financial Costs of Strategies to Reduce Salt Intake and Control Tobacco Use' (2007) 370 *Lancet* 2044.

[9]    WHO, *Diet, Nutrition and the Prevention of Chronic Diseases.* Report of the Joint WHO/FAO Expert Consultation, WHO TRS No 916 (2003) 90 <http://www.who.int/dietphysicalactivity/publications/trs916/en/>

[10]   Centers for Disease Control and Prevention, 'Sodium Intake among Adults — United States, 2005–2006' (2010) 59 *Morbidity and Mortality Weekly Report* 746, 747. Seventy-seven per cent of salt intake in the United States comes from packaged, processed and restaurant foods: see Sonia Y Angell and Thomas A Farley, 'Can We Finally Make Progress on Sodium Intake?' (2012) 102 *American Journal of Public Health* 1625.

[11]   See, eg, F J He and G A MacGregor, 'Effect of Modest Salt Reduction on Blood Pressure: A Meta-Analysis of Randomized Trials. Implications for Public Health' (2002) 16 *Journal of Human Hypertension* 761; Crystal M Smith-Spangler et al, 'Population Strategies to Decrease Sodium Intake and the Burden of Cardiovascular Disease: A Cost-Effectiveness Analysis' (2010) 152 *Annals of Internal Medicine* 481.

[12]   Lim et al, above n 2. The relationship between a reduced salt intake and cardiovascular health continues to be debated. The Institute of Medicine recently convened an expert panel to review studies linking sodium intake with direct health outcomes: Brian L Strom, Ann L Yaktine and Maria Oria (eds), *Sodium Intake in Populations: Assessment of Evidence* (National Academies Press, 2013). The panel confirmed the positive relationship between high levels of sodium intake and risk of cardiovascular disease, but found that there was insufficient evidence of either harm or benefit from sodium consumption below 2,300mg/d (approximately 6g salt) in the general

Many developed countries have introduced programs that seek to reduce population-wide salt intake, including Finland, the United States and Britain.[13] The most influential of these was introduced in 2003 by the United Kingdom Food Standards Authority ('UKFSA'). It draws upon improved front-of-pack labelling, consumer awareness campaigns, monitoring, and voluntary reformulation targets for a wide range of product categories.[14] Since this initiative was introduced, population salt intake in the United Kingdom has declined by approximately 10 per cent.[15] Evidence also suggests that the population has adjusted to falling salt concentrations and, over time, there has been a reduction in the proportion of adults adding discretionary salt to food.[16] The program has now been incorporated into the United Kingdom's 'Responsibility Deal' — a public-private partnership that brings together government, private and non-government actors to address the behavioural risk factors for chronic disease, including poor diet, tobacco use, excess alcohol consumption and physical inactivity.[17]

Australia's voluntary approach to food reformulation was established by the Commonwealth Department of Health in 2009 and is known as the 'Food and Health Dialogue'. The Dialogue focuses on voluntary product reformulation across a range of commonly consumed processed foods, and relies heavily upon food industry cooperation, including through representation on working groups and via an industry round table.[18] However, evidence suggests that the Dialogue has failed to significantly reduce the salt content of Australian processed food.[19] Further, it lacks many of the features of more comprehensive salt reduction programs, including targets for population-level salt intake; systematic monitoring of consumer behaviour and of the salt levels in key products; and a comprehensive set of reformulation targets.

This article proposes a new approach to reducing population salt intake in Australia. We begin by describing the health costs of excess salt consumption in

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population. For discussion of the panel's findings, see [Issue focusing on] 'Perspectives on Dietary Sodium: After the Institute of Medicine (IOM) Report' (2013) 26(10) *American Journal of Hypertension*. For further discussion, see Theodore A Kotchen, Allen W Cowley Jr and Edward D Frohlich, 'Salt in Health and Disease — A Delicate Balance' (2013) 36 *New England Journal of Medicine* 1229; Rosana Poggio et al, 'Daily Sodium Consumption and CVD Mortality in the General Population: Systematic Review and Meta-Analysis of Prospective Studies' (2014) First View Article *Public Health Nutrition* <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=9269763&utm_source=First_View&utm_medium=Email&utm_campaign=PHN>.

[13]  See Angell and Farley, above n 10; Jacqueline L Webster et al, 'Salt Reduction Initiatives Around the World' (2011) 29 *Journal of Hypertension* 1043; Cappuccio and Capewell, above n 4.

[14]  See WHO, *Reducing Salt Intake in Populations. Report of a WHO Forum and Technical Meeting* (2006) 16–17 <http://www.who.int/dietphysicalactivity/Salt_Report_VC_april07.pdf>.

[15]  Bhavani Shankar et al, 'An Evaluation of the UK Food Standards Agency's Salt Campaign' (2013) 22 *Health Economics* 243, 248.

[16]  Jennifer Sutherland et al, 'Fewer Adults Add Salt at the Table after Initiation of a National Salt Campaign in the UK: A Repeated Cross-Sectional Analysis' (2013) 110 *British Journal of Nutrition* 552.

[17]  Department of Health, *Public Health Responsibility Deal* <https://responsibilitydeal.dh.gov.uk/>.

[18]  Department of Health, *About Us* Food and Health Dialogue <http://www.foodhealthdialogue.gov.au/internet/foodandhealth/publishing.nsf/Content/about-us>.

[19]  See Kate Hagan, 'Sodium Content in Foods Jumps 9%' *The Sydney Morning Herald* (online), 9 October 2012 <http://www.smh.com.au/national/health/sodium-content-in-foods-jumps-9-20121008-279b8.html#ixzz2HWbqnH9D>.

Australia and compare the Food and Health Dialogue with the United Kingdom's salt reduction program. We argue that current, industry-led efforts to reduce salt intake in Australia are of limited scope and can be expected to yield few benefits in the medium term. New ideas, and the political commitment to implement them, are needed. The potential role of regulation in reducing population salt intake has been noted in the literature,[20] but usually with little exploration of how a regulatory scheme would actually work in practice.[21] Public health advocates tend to assume that the solution to public health challenges lies in government directly imposing various technical controls — a model often called 'command-and-control' regulation.[22] Tobacco control provides the most obvious example of a 'command-and-control' approach that uses direct statutory prohibitions to restrict the sale and marketing of tobacco products. While the use of legislation to impose maximum salt levels for different kinds of food is not unprecedented,[23] this article acknowledges the political obstacles to the imposition of mandatory salt reduction measures, and draws on regulatory studies literature to explain why this is so. We also use theories of the regulatory state to highlight some new opportunities for governments to influence the behaviour of private actors for the benefit of public health. The article presents a menu of options that could be implemented in a selective and progressive manner to strengthen voluntary salt reduction initiatives. Drawing on this model, we then outline a detailed strategy for accelerating progress in salt reductions in Australia, in a step-wise manner.

## II    The Health Costs of Excess Salt Intake in Australia

In Australia, 17 per cent of total deaths are attributable to high blood pressure.[24] Twelve per cent of adults report high blood pressure, and the proportion of adults affected rises significantly with age.[25] Raised blood pressure is the most important modifiable risk factor for cardiovascular disease (heart disease and stroke), which

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[20]    Jane E Henry and Christine L Taylor (eds), *Strategies to Reduce Sodium Intake in the United States* (National Academies Press, 2010); Roger Magnusson, 'How Law and Regulation Can Add Value to Prevention Strategies for Obesity and Diabetes,' in Louise A Baur, Stephen M Twigg and Roger S Magnusson and (eds), *A Modern Epidemic — Expert Perspectives on Obesity and Diabetes* (Sydney University Press, 2012) 207, 228–30.

[21]    See, however, Stephen D Sugarman, 'Salt, High Blood Pressure and Performance-Based Regulation' (2009) 3 *Regulation & Governance* 84.

[22]    See Robert Baldwin, Colin Scott and Christopher Hood, 'Introduction' in Robert Baldwin, Colin Scott and Christopher Hood (eds), *A Reader on Regulation* (Oxford University Press, 1998) 1, 14.

[23]    For example, South African regulations made in 2013 impose maximum salt levels for 13 food categories, including breakfast cereals, butter and fat spreads, bread, and processed meat: *Foodstuffs, Cosmetics and Disinfectants Act 1972* (South Africa): Regulations Relating to the Reduction of Sodium in Certain Foodstuffs and Related Matters, RG 36274/2013. For an overview of jurisdictions that place mandatory limits on the salt content of various food products, see World Cancer Research Fund International, *WCRF International Food Policy Framework for Healthy Diets: NOURISHING* <http://www.wcrf.org/policy_public_affairs/nourishing_framework/food_supply_composition_reformulation>. Some scholars have also called for a mandatory approach to reducing salt levels in foods: see, eg, Michelle M Mello et al, 'Critical Opportunities for Public Health Law: A Call for Action' (2013) 103 *American Journal of Public Health* 1979, 1983.

[24]    Stephen Begg et al, *The Burden of Disease and Injury in Australia 2003* (Australian Institute of Health and Welfare ('AIHW'), 2007) 78.

[25]    AIHW, *Risk Factors Contributing to Chronic Disease* (Cat no PHE 157, 2012) 46–8 <http://www.aihw.gov.au/publication-detail/?id=10737421466>.

is both the leading cause of death (responsible for 34 per cent of deaths in 2008),[26] and the second-largest contributor — after cancer — to Australia's disease burden.[27] In 2004–05 cardiovascular disease accounted for nearly A\$6 billion in health care expenditures (11 per cent of total expenditure), more than for any other disease.[28]

There are no up-to-date data on population dietary salt intake in Australia.[29] However, estimated average consumption of salt is approximately 7–10g daily,[30] well in excess of the National Health and Medical Research Council's ('NHMRC') recommended maximum sodium intake of 2300 mg/day per person (approximately 6g).[31] One study estimates that removing 15–25 per cent of sodium from processed foods could prevent 5800–9700 heart attacks and 4900–8200 strokes in Australia over a 10-year period.[32] In addition to its benefits in reducing blood pressure, population-wide salt reduction represents an important strategy for moderating growth in health spending, which continues to rise as a percentage of Australia's gross domestic product.[33]

As in Europe and North America,[34] processed foods and ready-made meals are estimated to contribute around 75–80 per cent of dietary salt in the Australian population.[35] A systematic survey of salt in processed foods in Australia found that sauces, spreads and processed meats contained the highest average salt levels, while meats and meat products, bread and bakery goods, dairy products, cereals, and sauces and spreads contributed the greatest amount of salt to the diet.[36] The authors also found significant variations in salt content within and between food

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[26]   AIHW, *Cardiovascular Disease: Australian Facts 2011* (Cat no CVD 53, 2011) 48 <http://www.aihw.gov.au/publication-detail/?id=10737418510>. In 2008, CVD caused 48 456 deaths: ibid.

[27]   Ibid x; Begg et al, above n 24, 55.

[28]   Ibid 167–8.

[29]   Jacqueline L Webster, Elizabeth K Dunford and Bruce C Neal, 'A Systematic Survey of the Sodium Content of Processed Foods' (2010) 91 *American Journal of Clinical Nutrition* 413.

[30]   C Margerison and C A Nowson, 'Dietary Intake and 24-Hour Excretion of Sodium and Potassium' (2006) 15 (Supp 3) *Asia Pacific Journal of Clinical Nutrition* S37; Grant D Brinkworth et al, 'Reductions in Blood Pressure Following Energy Restrictions for Weight Loss Do Not Rebound After Re-Establishment of Energy Balance in Overweight and Obese Subjects' (2008) 30 *Clinical and Experimental Hypertension* 385; Jennifer B Keogh and Peter M Clifton, 'Salt Intake and Health in the Australian Population (Letter to the Editor)' (2008) 189 *Medical Journal of Australia* 526; The Australian Division of World Action on Salt and Health, *Salt and Health Facts* <http://www.awash.org.au/media/salt-and-health-facts/>.

[31]   NHMRC, *Nutrient Reference Values for Australia and New Zealand* (2006) <http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/n35.pdf>.

[32]   Stephen Goodall, Gisselle Gallego and Richard Norman, 'Scenario Modelling of Potential Health Benefits Subsequent to the Introduction of the Proposed Standard for Nutrition, Health and Related Claims' (Centre for Health Economics Research and Evaluation, University of Technology, Sydney, 2008).

[33]   AIHW, *Health Expenditure Australia 2010-11* (Cat no HWE 56, 2012) <http://www.aihw.gov.au/publication-detail/?id=10737423009>.

[34]   Stephen Havas, Barry D Dickinson and Modena Wilson, 'The Urgent Need to Reduce Sodium Consumption' (2007) 298 *Journal of the American Medical Association* 1439.

[35]   Food Standards Australia New Zealand, 'Proposal P230: Consideration of Mandatory Fortification with Iodine for New Zealand' (2008) 9 <http://www.foodstandards.gov.au/code/proposals/pages/proposalp230iodinefo2802.aspx>.

[36]   Webster, Dunford and Neal, above n 29.

sub-categories, suggesting that it is 'technically feasible to produce lower-salt products for most food types'.[37] Girgis et al reported that one quarter of the salt content of high-salt bread (2g salt, or 775mg sodium per 100g) could be removed progressively over a six-week period without detection by a group of Sydney volunteers randomly assigned to either a control or intervention group.[38] This suggests that a sodium-reduction program based upon a cumulative series of small reductions is a feasible strategy for reducing the sodium content of bread while maintaining consumer acceptance of the product.[39]

Although consumer education and targeted interventions are important, the benefits of progressive salt reductions in all major food categories deserve emphasis. The strokes and heart attacks that constitute Australia's preventable burden of cardiovascular disease not only arise in those whose blood pressure places them on the extreme right hand of the population-wide distribution curve, but also 'from the many people in the middle part of the distribution who are exposed to a small[er] risk',[40] many of whom would be unaware of their risk status. For this reason, public policy needs to focus not only on 'high risk groups', but on reducing the 'widespread inconspicuous risks'[41] that exist across the broader population. Given that around three-quarters of salt is added to food prior to sale, reducing average salt levels in the food supply is the most direct way of reducing average blood pressure. It is also likely to be more effective than simply encouraging individuals to change their behaviour. Behaviour change can only work if low-salt alternatives are available and immediately visible. The hidden salt content of most processed foods means that in order to reduce their salt intake, individuals would need to scrutinise nutrition information labels in supermarkets and on menu boards in fast-food restaurants. This is time consuming, and many of those who would benefit most from reducing their salt intake are unlikely to do so.[42]

## III   Current Strategies for Reducing Salt Intake in Australia

Australia's main strategy for reducing salt intake, the Food and Health Dialogue, was established as a non-regulatory platform for collaboration between government, industry and public health actors.[43] The Dialogue aims to reduce saturated fat, added sugar, sodium and energy in a range of commonly consumed foods, and to increase levels of fibre, wholegrain, and fruit and vegetable content.[44]

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[37]   Ibid 417. Similarly, see Elizabeth Dunford et al, 'The Variability of Reported Salt Levels in Fast Foods across Six Countries: Opportunities for Salt Reduction' (2012) 184 *Canadian Medical Association Journal* 1023.

[38]   S Girgis et al, 'A One-Quarter Reduction in the Salt Content of Bread Can Be Made without Detection' (2003) 57 *European Journal of Clinical Nutrition* 616.

[39]   Ibid 619.

[40]   Geoffrey Rose, 'Strategy of Prevention: Lessons from Cardiovascular Disease' (1981) 282 *British Medical Journal* 1847, 1849.

[41]   Geoffrey Rose, 'Population Distributions of Risk and Disease' (1991) 1 *Nutrition, Metabolism and Cardiovascular Diseases* 37, 38.

[42]   Angell and Farley, above n 10, 1625.

[43]   See, Department of Health, *Principles for Collaboration*, Food and Health Dialogue <http://www.foodhealthdialogue.gov.au/internet/foodandhealth/publishing.nsf/Content/industry-engagement>.

[44]   Ibid.

Since 2009, the Dialogue has set 17 targets for salt reduction across eight food categories: bread, breakfast cereals, simmer sauces, processed meat, soups, savoury pies, potato/corn/extruded snacks and savoury crackers.[45] Condiments and frozen potato products were scheduled to be added to the Dialogue process during 2013, but no targets appear to have been set.[46] The Dialogue sets overall salt reduction targets for each food category to be met over a period of three to four years. These targets are framed in a variety of ways:[47] some are expressed as a percentage reduction in sodium levels in products whose sodium levels currently exceed a nominated threshold amount; for example, a '15% reduction in sodium across ready-to-eat breakfast cereals with sodium levels exceeding 400mg/100g'.[48] In other cases, the target is a simple maximum (for example, 400mg/100g for bread), or consists of an average salt reduction target for the particular food category, combined with an upper limit. In each case, individual companies decide which products to reformulate in order to meet the target. In May 2013, the former Labor government announced a further $800 000 to support the Dialogue process, but whether the current coalition government will honour this commitment is unknown.[49]

According to the Department of Health, the Food and Health Dialogue has reduced sodium levels in processed meat products by an average of 20 per cent.[50] However, the adequacy of the Dialogue as a mechanism for reducing population salt intake remains doubtful. An independent study of sodium content in Australian bread over the period 2007–10 found no reduction in average sodium levels, despite significant improvement in breads meeting the 400mg/100g target, since average salt in breads at the lower end of the range rose from 115mg to 235mg per 100g, and new breads with very high sodium content also appeared on the market.[51] Recent data from the George Institute for International Health reveal that the sodium content of packaged food products for sale in five supermarkets rose by nine per cent over the period 2008–11, despite variations between product categories.[52] Average sodium content rose 16 per cent in oils, 13 per cent in sauces and spreads, and eight per cent in cereals, but decreased in dairy foods (by 11 per cent) and in bread and bakery products (by eight per cent).[53]

The Food and Health Dialogue is a weak initiative when compared to other, more successful international programs. Most importantly, it has far fewer salt

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[45]  Department of Health, *Summary of Food Categories Engaged under the Food and Health Dialogue to Date*, Food and Health Dialogue <http://www.foodhealthdialogue.gov.au/internet/foodandhealth/publishing.nsf/Content/summary_food_categories>.

[46]  Department of Health, *Food and Health Dialogue Newsletter* (5th Edition, November 2012) 1 <http://www.foodhealthdialogue.gov.au/internet/foodandhealth/publishing.nsf/Content/e-newsletter>.

[47]  Department of Health, above n 45.

[48]  Ibid.

[49]  Food and Health Dialogue, Meeting Summary (28 May 2013) <http://www.health.gov.au/internet/main/publishing.nsf/Content/foi-disc-log/$File/FOI%20118-1314%20-%20Scanned%20redacted%20document%20(D13-2381146).PDF>.

[50]  Department of Health, *Food and Health Communiqué,* Food and Health Dialogue (28 November 2012) <http://ahha.asn.au/news/food-and-health-dialogue-communiqu>.

[51]  Elizabeth Dunford et al, 'Changes in the Sodium Content of Bread in Australia and New Zealand between 2007 and 2010: Implications for Policy' (2011) 195 *Medical Journal of Australia* 346, 348.

[52]  Hagan, above n 19.

[53]  Ibid.

reduction targets than programs in the United Kingdom, United States and Canada (which have more than 60 targets each)[54] and, as a result, it fails to cover some key categories of processed food. For example, no targets have been set or foreshadowed for ready meals in the Dialogue process, despite strong consumer demand for these products (in 2010, frozen ready meals generated over $200 million in sales).[55] In addition, the Dialogue's salt reduction targets are often weaker than those in other programs. For example, the 2012 United Kingdom target for salt content of simmer sauces was a mean sodium content of 330mg/100g,[56] while the Dialogue target is a 15 per cent reduction in salt content of sauces containing more than 420mg/100g of sodium between 2011 and 2014.[57] A recent study found that mean sodium levels in pasta sauces in Australia did not differ significantly between 2008 (439mg/100g) and 2011 (451mg/100g).[58] Further, the projected mean salt level for sauces in 2014 was 381mg/100g, representing a 10 per cent overall reduction in salt content, but leaving Australian pasta sauces an average 51mg/100g higher in sodium than the United Kingdom's 2012 target.[59] As this example illustrates, not only does the Dialogue fail to set an absolute, quantifiable target for simmer sauces, it also aims for smaller reductions in salt content than the United Kingdom program.[60]

The Food and Health Dialogue process has other limitations, including the fact that it does not set an overall population-level target for salt reduction. It does not monitor changes in the salt content of foods that are the subject of product reformulation targets, nor changes in consumer salt intake. While the Dialogue requires participants to self-report on their progress against a company action plan for product reformulation, it does not publish detailed information on companies' progress, undermining the transparency and accountability of the program.[61] There are no mechanisms for enforcement and few incentives for companies to join the Dialogue, apart from any reputational benefits that accrue from positive publicity generated by Department of Health press releases.[62] Overall, the Dialogue has not

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[54]   See Food Standards Agency, *Agency Publishes Revised 2012 Targets*, The National Archives (18 May 2009) <http://tna.europarchive.org/20120209120540/http://www.food.gov.uk/news/news archive/2009/may/salttargets>; New York City Department of Health and Mental Hygiene, *National Salt Reduction Initiative* <http://www.nyc.gov/html/doh/html/diseases/salt.shtml>; Bureau of Nutritional Sciences Food Directorate Health Products and Food Branch, *Guidance for the Food Industry on Reducing Sodium in Processed Foods* (June 2012) Health Canada <http://www.hc-sc.gc.ca/fn-an/legislation/guide-ld/2012-sodium-reduction-indust-eng.php>.

[55]   Anthea Kay Christoforou, Elizabeth Kalpiaka Dunford and Bruce Charles Neal, 'Changes in the Sodium Content of Australian Ready Meals between 2008 and 2011' (2013) 22 *Asia Pacific Journal of Clinical Nutrition* 138. In this study of frozen, chilled and ambient pre-prepared ('ready') meals, the authors found a reduction of less than one per cent in average sodium content between 2008 and 2011.

[56]   Food Standards Agency, above n 54.

[57]   Department of Health, above n 45.

[58]   Helen Trevena et al, 'The Australian Food and Health Dialogue — the Implications of the Sodium Recommendation for Pasta Sauces' (2013) First View Article *Public Health Nutrition* <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8951628>.

[59]   Ibid 3.

[60]   Ibid 4.

[61]   Ibid 5. See also Tamara Elliott et al, 'A Systematic Interim Assessment of the Australian Government's Food and Health Dialogue' (2014) 200 *Medical Journal of Australia* 92.

[62]   Elliott et al, above n 61. See also Department of Health, *FAQs* Food and Health Dialogue <http://www.foodhealthdialogue.gov.au/internet/foodandhealth/publishing.nsf/ Content/faqs>.

been designed to deliver reductions in population salt intake of the scale that are needed to reduce the preventable burden of cardiovascular disease, within an acceptable timeframe.

## IV    Reducing Salt Intake — The United Kingdom's Experience

It is useful to compare the design features of Australia's Food and Health Dialogue with its United Kingdom counterpart. In 2003, the UKFSA implemented a salt reduction program, setting an overall target of reducing population salt intake from 9.5g per day in 2003, to 6g per day in 2010.[63] The Minister of Public Health asked food companies to outline their plans for salt reduction, and the UKFSA thereafter coordinated a voluntary dialogue with the food industry to achieve progressive reductions. In 2006, the UKFSA published salt reduction targets for 85 food categories, following consultation with industry.[64] The UKFSA's strategy involved gradual, step-wise reductions in salt levels by participating companies, in order to prevent loss of sales and to maintain consumer acceptability of products. Companies meeting salt reduction targets were praised, while non-government organisations ('NGOs') and consumer groups carried out product surveys that drew attention to companies with high salt levels in their products.[65] The UKFSA monitored reductions in average salt intake, together with the progress of food manufacturers and retailers towards achieving the targets for each food category.[66] It also conducted a consumer awareness campaign to encourage consumers to choose lower salt products, and developed a voluntary, 'traffic-light' food labelling system that displayed nutrient levels for fat, saturated fat, sugar and salt in a colour-coded format on the front of the pack.[67]

The United Kingdom program has achieved significant reductions in sodium levels across key food categories, including a 20 per cent reduction in the salt content of bread (between 2001 and 2011), a 57 per cent reduction in the salt content of breakfast cereals (2004–11), and a 25 per cent reduction in the salt content of processed cheese (2008–10).[68] Urinary sodium analysis also confirms significant reductions in estimated population-level salt intake: between 2001 and 2011, salt intake fell from 11g/day to 9.3g/day in men, and from 8.1g/day to 6.8g/day in women.[69] Despite this, a survey conducted in 2011 revealed that average population salt intake for men and women (8.1g/day) remains 35 per cent higher than the recommended level (6g/day). Seventy per cent of survey

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[63]    See European Commission, *Collated Information on Salt Reduction in the EU* (April 2008) 6 <http://ec.europa.eu/health/archive/ph_determinants/life_style/nutrition/documents/compilation_salt_en.pdf>.

[64]    Laura A Wyness, Judith L Butriss and Sara A Stanner, 'Reducing the Population's Sodium Intake: The UK Food Standards Agency's Salt Reduction Program' (2012) 15 *Public Health Nutrition* 254, 255.

[65]    Ibid.

[66]    European Commission, above n 63, 8.

[67]    Wyness, Butriss and Stanner, above n 64, 256–7.

[68]    F J He, H C Brinsden and G A MacGregor, 'Salt Reduction in the United Kingdom: A Successful Experiment in Public Health' (2014) 28 *Journal of Human Hypertension* 345, 348.

[69]    Ibid 349.

participants exceeded the recommended level,[70] and at the current rate of reduction, it will take another 12 years to reach the recommended level.[71]

In May 2009, following a review of progress towards the targets set for different food categories in 2006, the UKFSA published a revised set of targets to be met by 2012.[72] In 2010, however, nutrition policy was transferred from the UKFSA to the Department of Health and the United Kingdom's salt reduction program was rolled into a new, multi-stakeholder 'Public Health Responsibility Deal' established by the newly elected coalition government.[73] The Deal aims to promote healthy behaviour and to make healthier choices easier using voluntary agreements with industry.[74] Private sector participants to the Deal sign up to a set of generally expressed 'core commitments' and supporting pledges. A separate set of pledges then details the specific actions that industry participants agree to take.[75] The 'Salt Reduction Pledge' commits signatories to meet the 2012 salt reduction targets covering 80 specific food groups; these represent a 15 per cent reduction on the earlier 2010 targets, and about 30 per cent of the total reduction in salt intake required to meet the government's goal of six grams per day.[76]

In March 2013, the Food Network published new salt targets following a review of the previous salt reduction pledge.[77] The Network's first phase of work involved the creation of a new pledge setting maximum-per-serving salt targets for food caterers. These targets cover 11 food categories and 24 sub-categories based on the 10 most popular dishes sold by catering businesses, including chips, fries, burgers, curries, steaks, sandwiches and pizzas.[78] Under a second phase of work, the network reviewed the 2012 salt reduction targets and set more demanding targets for 76 categories of food products, to be achieved by 2017. Some targets are considered 'aspirational', because they may be technically difficult to achieve. Accordingly, they will be considered met where 95 per cent of companies' products or volume sales achieve the targets, and participants have also attempted to reduce the salt content of the remaining five per cent of products or volume sales

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[70] Katharine Sadler et al, *National Diet and Nutrition Survey — Assessment of Dietary Sodium in Adults (Aged 19 to 64 Years) in England, 2011* (Survey carried out on behalf of the Department of Health, 2012) <http://webarchive.nationalarchives.gov.uk/20130402145952/https://www.wp. dh.gov.uk/transparency/files/2012/06/Sodium-Survey-England-2011_Text_to-DH_FINAL1.pdf >.

[71] He, Brinsden and MacGregor, above n 68, 349.

[72] Wyness, Butriss and Stanner, above n 64, 256.

[73] Ibid 260.

[74] HM Government, *Healthy Lives, Healthy People: Our Strategy for Public Health in England* (White Paper, 30 November 2010) 30 <https://www.gov.uk/government/uploads/system/uploads/ attachment_data/file/216096/dh_127424.pdf>.

[75] Department of Health (UK), *Pledges* Public Health Responsibility Deal <http://responsibilitydeal.dh.gov. uk/pledges/>.

[76] This pledge is known as 'F2 — Salt Reduction'. Department of Health, *F2. Salt Reduction*, Public Health Responsibility Deal <https://responsibilitydeal.dh.gov.uk/pledges/pledge/?pl=9>.

[77] Food Network, *Salt Strategy Beyond 2012*, linked at <https://responsibilitydeal.dh.gov.uk/salt-strategy/>.

[78] Rod Addy, 'First Salt Targets Issued for Foodservice Firms', *Foodmanufacture* (online), 7 March 2014 <http://www.foodmanufacture.co.uk/Ingredients/First-salt-targets-issued-for-foodservice-firms>. A specific target has been set for children's meals in food service establishments (but not schools), of 1.8g of salt per 100g of product.

to a minimum level.[79] However, all new products introduced into the market must meet, or fall below, the current maximum target for the relevant category.[80]

The United Kingdom's salt reduction initiative, now part of the broader Responsibility Deal, is an interesting case study in voluntary regulation, both because of the relatively wide scope of its salt reduction targets, and because of recent attempts to engage retailers and caterers in addition to manufacturers. Nevertheless, it has taken 11 years for average population salt intake to fall from 9.5g per day to 8.1g per day — less than halfway towards the UKFSA's target of 6g per day, and the WHO's recommendation of 5g per day. Public health groups have argued that the Responsibility Deal cedes too much control to food industry actors,[81] and even the United Kingdom Health Secretary has said that he would consider legislation to limit the amount of sugar, salt and fat in processed foods if supermarkets and manufacturers fail to get their 'house in order'.[82] In summary, while the Responsibility Deal points to possible avenues for reforming Australia's program, it also reveals some of the limitations of public health initiatives that rely on voluntary industry cooperation.

## V        Obstacles to Direct Legislative Intervention to Reduce Population Salt Intake

Given the slow rate of progress of voluntary initiatives, some public health advocates have argued that mandatory approaches are the best way to accelerate progress in salt reduction.[83] Cobiac, Vos and Veerman calculated that if the government established mandatory salt reduction targets based on criteria set under the Heart Foundation's Tick Program,[84] this would produce 20 times the health benefits of voluntary efforts undertaken by Australian food manufacturers.[85] Theoretically, government could adopt a 'command-and-control' approach to salt reduction, for example, by convening an expert group to set maximum salt levels

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[79]    Department of Health, *F9. Salt Reduction 2017*, Public Health Responsibility Deal <https://responsibilitydeal.dh.gov.uk/pledges/pledge/?pl=49>.

[80]    Where product categories do not have a maximum figure then companies may use the recommendation for average salt content as a maximum: ibid.

[81]    Anna B Gilmore, Emily Savell and Jeff Colin, 'Public Health, Corporations and the New Responsibility Deal: Promoting Partnerships with Vectors of Disease?' (2011) 33 *Journal of Public Health* 2; Nigel Hawkes 'BMA Meeting: BMA Condemns Government's "Responsibility Deals" With Food and Drinks Industry' (2011) 342 *British Medical Journal* d4166 <http://www.bmj.com/content/342/bmj.d4166>; Kawther Hashem, Christine Haigh and Charlie Powell, *The Irresponsibility Deal? Why the Government's Responsibility Deal is Better for the Food Industry than Public Health* (September 2011) Sustain <http://www.sustainweb.org/publications/?id=188>.

[82]    Conal Urquhart, 'Childhood Obesity: Jeremy Hunt Threatens Food Industry with Legislation', *The Guardian* (online), 5 January 2013 <http://www.guardian.co.uk/society/2013/jan/05/childhood-obesity-fatty-sugary-foods>.

[83]    See, eg, Francesco P Cappuccio, 'Salt and Cardiovascular Disease: Legislation to Cut Levels of Salt in Processed Food is Necessary and Justified' (2007) 334 *British Medical Journal* 859.

[84]    Heart Foundation, *Heart Foundation Tick* <http://www.heartfoundation.org.au/healthy-eating/heart-foundation-tick/Pages/default.aspx>.

[85]    Linda J Cobiac, Theo Vos and J Lennert Veerman, 'Cost-Effectiveness of Interventions to Reduce Dietary Salt Intake' (2010) 96 *Heart* 1920, 1922.

for different categories of food products.[86] Fines could be imposed on manufacturers, retailers and/or caterers who exceeded these caps. By contrast, Sugarman has advocated a form of 'performance-based' regulation, based on aggregate targets for reductions in the amount of salt passing through the cash registers of the largest food retailers. Regulated firms would have considerable flexibility in developing a strategy to meet their targets; for example, by changing retail prices, or pressuring suppliers to reduce salt levels in their products. However, significant penalties would apply if targets were not met.[87]

Undoubtedly, there would be vigorous resistance from the food industry to a mandatory approach to reducing salt consumption.[88] Salt can be added to inedible foods to make them palatable at very little extra cost,[89] and is used as a water binding agent to increase the weight of products very cheaply.[90] Salt is also a major driver of thirst, which increases demand for sugary drinks.[91] One benefit of a command-and-control approach is that all manufacturers could be made to meet the same requirements for sodium reductions in key product categories. This obviates the risk of loss of market share that might otherwise arise for manufacturers who reduced salt levels in their products on a voluntary basis. Nevertheless, the industry would still view mandatory controls with suspicion, given their possible impact on companies' profits, the consumer acceptability of products, and loss of industry control over product formulation. The cost of implementing and enforcing a mandatory regime — to both government and industry — provides additional reasons for industry resistance.

The food industry is the largest manufacturing sector in Australia, and a significant employer in rural and regional areas.[92] As community concerns about obesity and the health effects of diet have increased over time, the industry has introduced a number of voluntary initiatives that are relevant to reducing dietary salt, including front-of-pack food labelling, food advertising to children,[93] and more recently, the 'Healthier Australia Commitment'.[94] The latter was announced by the Australian Food and Grocery Council in October 2012, and includes a program of product reformulation, where member companies agree to reduce sodium and saturated fat levels by 25 per cent and energy levels by 12.5 per cent,

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[86]   Sugarman, above n 21, 92. See also Havas, Dickinson and Wilson, above n 34.

[87]   Sugarman, above n 21, 87–91; Stephen Sugarman, 'Enticing Business to Create a Healthier American Diet: Performance-Based Regulation of Food and Beverage Retailers' (2014) 36 *Law & Policy* 91. South Africa has adopted mandatory, maximum salt levels for 13 food categories: see above n 23.

[88]   Francesco Cappuccio et al, 'Policy Options to Reduce Population Salt Intake' (2011) 343 *British Medical Journal* d4995 < http://www.bmj.com/content/343/bmj.d4995.pdf%2Bhtml>.

[89]   WHO, above n 14, 19; Henry and Taylor, above n 20, 2.

[90]   WHO, above n 14, 19; Cappuccio et al, above n 88.

[91]   Cappuccio et al, above n 88; Heikki Karppanen and Eero Mervaala, 'Sodium Intake and Hypertension' (2006) 49 *Progress in Cardiovascular Diseases* 59.

[92]   Bebe Loff and Brad R Crammond, 'Wanted: Politicians to Champion Health (Not Obesity)' (2010) 192 *Medical Journal of Australia* 397; Australian Food and Grocery Council ('AFGC'), *2020: Industry at a Crossroads Report* (2011) <http://www.afgc.org.au/2020-industry-at-a-crossroads-report.html>.

[93]   *Health & Nutrition*, AFGC <http://www.afgc.org.au/health-and-nutrition.html>.

[94]   *Together Counts* <http://www.togethercounts.com.au/healthy-australia-commitment/>.

based on their entire range of products over the period 2008–15.[95] About 25 per cent of Australia's food and beverage manufacturing industry has joined this initiative; however, the commitment does not set any targets for reductions within particular food categories, nor do members share information about what food categories and products each member will address: this effectively protects members from any individual accountability for failing to improve the nutritional quality of their product portfolio.[96] Yet one of the roles of food industry lobby groups is to point to the success of such voluntary programs, and to resist efforts to strengthen or replace them. By populating the policy space with weak and unenforceable standards, the food industry provides ready excuses for government to avoid a political contest by continuing to monitor industry initiatives, rather than implementing measures to strengthen them.[97]

The Australian government actively encourages industry self-regulation in relation to food and nutrition issues. For example, in 2008 the Australian Communications and Media Authority asked the food industry to consider ways in which it could address community concerns about unhealthy food advertising directed to children.[98] Industry responded by introducing two voluntary codes of conduct that regulate the content and placement of food advertising directed to children.[99] The government agreed to monitor the impact of these initiatives before considering any further regulatory action.[100] Despite studies showing that there has been no reduction in the rate of advertising of non-core food since these schemes were introduced,[101] this pattern seems set to continue.[102]

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[95]  AFGC, *Healthier Australia Commitment* (October 2012) 5–6 <http://www.togethercounts.com.au/wp-content/uploads/2013/02/HAC-Food-Targets.pdf>. These targets are to be measured against a baseline established by KPMG from aggregate data on member companies' complete product ranges in 2008.

[96]  The achievement of the initiative's targets is to be assessed collectively, driven by the reductions foreshadowed by each member's projected product portfolio, reformulation plans and volume charges over the period to 2015. See AFGC, above n 95, 5–6.

[97]  Belinda Reeve and Roger Magnusson, '"Legislative Scaffolding": A New Approach to Prevention' (2013) 37 *Australian and New Zealand Journal of Public Health* 494.

[98]  Australian Communications and Media Authority, 'Review of the Children's Television Standards 2005. Final Report of the Review' (Australian Communications and Media Authority, 2009) 9.

[99]  AFGC, *Responsible Children's Marketing Initiative* (March 2011) < http://www.afgc.org.au/health-and-nutrition/industry-codes/advertising-to-children/qsr-initiative.html>; Australian Quick Service Restaurant Industry, *Initiative for Responsible Advertising and Marketing to Children* (June 2009) <http://www.afgc.org.au/health-and-nutrition/industry-codes/advertising-to-children/qsr-initiative.html>.

[100]  Australian Government, 'Taking Preventative Action — A Response to Australia: The Healthiest Country by 2020 — the Report of the National Preventative Health Taskforce' (Commonwealth of Australia, 2010) 47.

[101]  See, eg, Lesley King et al, 'Building the Case for Independent Monitoring of Food Advertising on Australian Television' (2013) 16 *Public Health Nutrition* 2249; Lana A Hebden et al, 'Advertising of Fast Food to Children on Australian Television: The Impact of Industry Self-Regulation' (2011) 195 *Medical Journal of Australia* 20.

[102]  During 2013–14, the Australian National Preventive Health Agency ('ANPHA') consulted on draft frameworks for monitoring children's exposure to unhealthy foods and drinks on television, and for monitoring compliance with food industry self-regulatory initiatives: ANPHA, *Draft Frameworks for Monitoring Television Marketing and Advertising to Children of Unhealthy Foods and Drinks* (Issues Paper, April 2013) <http://www.anpha.gov.au/internet/anpha/publishing.nsf/Content/frameworks-monitoring-unhealthy-food-drafts>. In May 2014, however, the federal government announced that the ANPHA would be abolished, and that its ongoing functions would be integrated

Quite apart from these political factors, legislative interventions to improve nutrition face strong cultural and ideological resistance. Many people think of dietary choices as a matter of personal responsibility and struggle to see why government should become involved. Although tobacco control provides a model for direct legislative intervention by government, the analogy goes only so far. Tobacco controls are justified because the addictiveness of nicotine undermines the capacity of smokers to quit, and because of the harm caused to non-smokers, including those exposed to second-hand smoke and unborn children.[103] By contrast, salt is an important nutrient in a healthy diet: the harm arises from over-consumption. Nevertheless, researchers point to analogies between tobacco and processed food as one basis for strengthening regulation of processed foods that are high in saturated fat, salt, and sugar.[104] Given the high average levels of salt added by manufacturers to most categories of processed foods, the capacity for individual choice is significantly diminished, especially in the absence of a front-of-pack food labelling scheme that draws attention to products that are high in salt and in other over-consumed nutrients.[105]

## VI    New Approaches to Public Health Law and Regulation

Given the obstacles to direct government regulation of salt levels in processed food, this article considers novel regulatory approaches to strengthening Australia's voluntary salt reduction initiative. As Table 1 illustrates, tobacco, alcohol and food regulation in Australia now spans a wide variety of regulatory forms. These include prescriptive legislation, co-regulatory arrangements and 'soft law' instruments such as self-regulatory codes. Public health scholars are also

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into the Department of Health: Australian Government, Budget Paper No 2: Budget Measures <http://www.budget.gov.au/2014-15/content/bp2/html/bp2_expense-14.htm>.

[103]  Tobacco killed 100 million people during the 20th century, and currently causes around 6 million deaths each year, including more than 600 000 deaths among non-smokers that are attributable to exposure to second-hand tobacco smoke: WHO, above n 9, 17.

[104]  Robert H Lustig, Laura A Schmidt and Claire D Brindis, 'Public Health: The Toxic Truth about Sugar' (2012) 482 *Nature* 27; Ashley N Gearhardt, William R Corbin and Kelly D Brownell, 'Food Addiction: An Examination of the Diagnostic Criteria for Dependence' (2009) 3 *Journal of Addiction Medicine* 1.

[105]  The Australian food industry has vigorously resisted colour-coded, 'traffic light' labelling that enables customers to tell at a glance which products are high in salt, based on category-specific salt levels set by nutrition experts: Roger S Magnusson, 'Obesity Prevention and Personal Responsibility: The Case of Front-of-Pack Food Labelling in Australia' (2010) 10 *BMC Public Health* 662 <http://www.biomedcentral.com/content/pdf/1471-2458-10-662.pdf>. However, in June 2013, the Legislative and Governance Forum on Food Regulation, comprising state and federal health ministers, and New Zealand's Minister for Food Safety, approved a 'Health Star Rating' system that uses a rating scale of ½ star to 5 stars to identify foods with higher and lower levels of energy, saturated fat, sodium and sugars as well as 'positive' nutrients such as fibre or calcium: The Hon Shayne Neumann MP, Parliamentary Secretary for Health and Ageing, *Final Communiqué – Legislative and Governance Forum on Food Regulation* (14 June 2013). However, at the time of writing, the future of this scheme is uncertain, and it will be subject to a rigorous cost/benefit analysis: *Legislative and Governance Forum on Food Regulation — Final Communiqué* (13 December 2013) <https://www.health.gov.au/internet/main/publishing.nsf/Content/D261D964EB80BB34CA257C400015496B/$File/dept002.pdf>; Amy Bainbridge, 'Health Star Rating Website for Food and Beverages Disappears 24 Hours after Being Published Online', *ABC News* (online), 8 February 2014 <http://www.abc.net.au/news/2014-02-08/star-rating-website-disappears-24-hours-after-being-posted/5246990>.

considering new ways to theorise the roles and responsibilities of government to protect the public's health. This literature conceptualises the array of legal and regulatory powers available to government, and considers how to harness the capacities of non-state actors to influence public health.[106]

**Table 1:   Examples of different forms of public health regulation**

| Form of regulation | Example | Description | Leading sector | Involvement by other actors |
|---|---|---|---|---|
| Statutory regulation | *Tobacco Prohibition Act 1992* (Cth) | Australian legislation that bans all forms of tobacco advertising and promotion | Commonwealth Government | Top-down approach excluding industry from regulatory processes |
| Co-regulation | UK Code of Broadcast Advertising ('BCAP Code') | Regulates broadcast advertising, and includes restrictions on the placement and content of advertisements for foods high in fat, salt and sugar that target children | The UK Office of Communications retains ultimate responsibility for advertising regulation and remains the backstop enforcer of the Code | An industry-based body writes the Code, while an independent body enforces it |
| Quasi-regulation | Alcohol Beverages Advertising Code ('ABAC') | A voluntary code that regulates the content of alcohol advertisements by Australian alcohol manufacturers | Three alcohol industry bodies collaborated to write the code and implement a system for its administration and enforcement | Following a government review, the industry included government representation in the scheme's administration, and public health representation in the complaints hearing mechanism |
| Self-regulation | Australian Food and Grocery Council ('AFGC') *Responsible Children's Marketing Initiative* | A voluntary code that regulates the content and placement of unhealthy food advertising to children | A food industry trade association (the AFGC) created and administers the Code | An independent body hears consumer complaints. There is little to no engagement with civil society, but some government monitoring of the scheme |

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[106] See, eg, Lance Gable, 'Evading Emergency: Strengthening Emergency Responses through Integrated Pluralistic Governance' (2012) 29 *Oregon Law Review* 375.

| 'Civil regulation' created by NGOs or civil society actors | Alcohol Advertising Review Board | An Australian public health organisation scheme to regulate the content and placement of alcohol advertisements via a code of conduct | Public health organisations joined together to create a 'competitor scheme' to challenge the alcohol industry's ABAC (described above) | Administered by public health representatives and includes an independent panel to hear consumer complaints. No participation by industry or government actors |
|---|---|---|---|---|
| Public-private partnership | The US Healthy Weight Commitment Foundation | A private-public partnership that aims to reduce childhood obesity through product reformulation, social media, school-based nutrition and physical activity programs and education campaigns | Managed by an industry-led organisation | The Foundation includes retailers, food and beverage manufacturers, restaurants, insurance companies, trade associations, NGOs and professional sports organisations |

In an influential 1997 report, the Nuffield Council on Bioethics expressed the government's role in terms of 'stewardship'.[107] The stewardship model recognises that governments have a duty to protect the health of their populations, while minimising the use of coercive measures.[108] The report outlined an 'intervention ladder' that governments can use to address public health problems, ordered according to their constraining effects on individual choice.[109] The ladder begins with doing nothing, or monitoring the situation, as the least intrusive option.[110] The justification for legislation, the most intrusive step on the ladder, depends upon evidence of its efficacy, public acceptability, its proportionality to the risks involved, as well as a demonstrated failure by the market to address the problem.[111] The stewardship model accepts that, while there are many different ways that governments can intervene to protect public health, the role of government as the leader and coordinator of public health action remains central.

The regulatory studies literature can make a significant contribution to a stewardship model of public health governance by means of its detailed elaboration of the regulatory processes and forms through which government can seek to influence business behaviour. Below, we draw on regulatory theory to highlight the growing diversity of forms of public health regulation and to identify some

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[107]  Nuffield Council on Bioethics, *Public Health: Ethical Issues* (Nuffield Council on Bioethics, 2007) 25–7   <http://www.nuffieldbioethics.org/sites/default/files/Public%20health%20-%20ethical%20 issues.pdf>.
[108]  Ibid xvii.
[109]  Ibid 41–2.
[110]  Ibid.
[111]  Ibid.

requirements for effective public health governance. In Part VIII of this article, we apply this framework to the challenge of population salt intake, outlining a detailed proposal for engaging food manufacturers and retailers to accelerate salt reduction efforts in Australia.

Regulatory theorists refer to 'regulatory capitalism' to express the idea that regulatory regimes are increasingly fragmented and complex, comprising overlapping forms of private and public regulation.[112] Yet governments retain a central role in regulatory capitalism, as private regulation is 'rarely entirely detached from the state'.[113] For example, governments often support or encourage the development of self-regulation, and having done so, respond to concern about the non-performance of industry schemes by promising to monitor industry conduct, rather than supplanting industry schemes with direct regulation,[114] as described above in relation to food advertising to children. This suggests a new role for the state, often described as 'meta-regulation' or 'steering' the direction of private regulation rather than 'rowing', or directly controlling the activities of private actors.[115]

Regulatory theory introduces a more nuanced way of conceptualising regulatory tools. Rather than framing self-regulation and direct, statutory regulation as mutually exclusive alternatives, regulatory theory locates them at opposite ends of a spectrum of regulatory possibilities.[116] A range of options lies between these two extremes, depending upon the degree of government intervention involved.[117] For example, Julia Black divides self-regulation into four categories: voluntary, coerced, sanctioned and mandated.[118] Voluntary or 'pure' self-regulation is not encouraged by government or other outside sources, but arises solely from industry initiative. By contrast, industries develop 'coerced' self-regulation in response to the threat of statutory regulation. Sanctioned self-regulation involves a degree of government oversight, with business formulating rules that are formally approved by government, whereas under mandated self-regulation, businesses develop regulatory rules within a framework established by government, including state-specified objectives. Mandated self-regulation may also be described as co-regulation, given that industries create self-regulation

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[112]  See, eg, Julia Black, 'Decentring Regulation: Understanding the Role of Regulation and Self-Regulation in a "Post-Regulatory" World' (2001) 54 *Current Legal Problems* 103, 128; John Braithwaite, *Regulatory Capitalism: How It Works, Ideas for Making It Work Better* (Edward Elgar, 2009); David Levi-Faur, 'The Global Diffusion of Regulatory Capitalism' (2005) 598 *The ANNALS of the American Academy of Political and Social Science* 12.

[113]  Ian Bartle and Peter Vass, 'Self-Regulation within the Regulatory State: Towards a New Regulatory Paradigm?' (2007) 84 *Public Administration* 885, 889.

[114]  Kernaghan Webb, 'Understanding the Voluntary Codes Phenomenon' in Kernaghan Webb (ed), *Voluntary Codes: Private Governance, the Public Interest and Innovation* (Carleton Research Unit for Innovation, Science and Environment, 2004) 3, 13.

[115]  David Osborne and Ted Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector* (Plume, 1993).

[116]  Bartle and Vass, above n 113; Darren Sinclair, 'Self-Regulation Versus Command-and-Control? Beyond False Dichotomies' (1997) 19 *Law & Policy* 529.

[117]  Ibid. See also Department of Treasury and Finance (Vic), 'Victorian Guide to Regulation' (Department of Treasury and Finance, 2011) 16.

[118]  Julia Black, 'Constitutionalising Self-Regulation' (1996) 59 *Modern Law Review* 24. See also Bartle and Vass, above n 113.

within a legislative framework. Table 2 illustrates the variety of forms of self- and co-regulation positioned between 'pure' self-regulation and the direct imposition of legislative rules and standards.

**Table 2:   A spectrum of regulatory forms providing options for public health regulation**

| Form of regulation | Key features, and extent of government involvement |
| --- | --- |
| **Self-regulation** | |
| Pure | Industry associations develop initiatives unilaterally, without pressure from government/other parties to do so |
| Tacitly supported | Government tacitly supports the creation of self-regulation, for example by pointing to the existence of self-regulatory regimes as justification for not regulating (but continuing to monitor) the progress and outcomes of the scheme |
| Quasi-regulation | Government influences self-regulation in ways other than through legislation. For example, industry may develop a self-regulatory scheme in response to government's threat to regulate if industry does not address a particular issue. Government representatives and other stakeholders may participate in regulatory functions, such as administration or enforcement |
| **Co-regulation** | |
| Directed self-regulation | Participation in the regulatory scheme becomes mandatory under legislation |
| Approved self-regulation | Government formally approves an industry self-regulatory scheme, giving it a particular status under legislation |
| Delegated regulation | Government delegates its regulatory role to a non-government (independent or industry) body, in accordance with legislation |
| **Government regulation** | |
| Command and control regulation | Government imposes mandatory standards backed by civil or criminal sanctions for non-compliance, either directly through legislation and regulations, or through a government agency that issues binding standards |
| Performance-based regulation | Government imposes mandatory targets, but leaves it to industry to determine how to meet these targets |

By drawing attention to a wider variety of regulatory forms, regulatory theorists raise the normative and political question of when direct, legislative interventions by government are justified. Ayres and Braithwaite's theory of responsive regulation proposed an incremental approach to regulation, which begins with self-regulation but moves towards more coercive options according to industry's willingness to cooperate in achieving public policy goals.[119] Theories of

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[119]   Ian Ayres and John Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* (Oxford University Press, 1995).

'smart regulation'[120] and of 'really responsive' regulation[121] have extended these ideas further. To summarise key insights from these theories, regulatory systems work best when they:

- begin with self-regulation — monitored closely by government;[122]
- take an incremental approach to regulation: governments should only introduce more coercive measures when self-regulation fails, and directly regulate industry only as a last resort;
- facilitate the participation of external stakeholders at different points in the regulatory process;
- combine complementary regulatory tools, rather than using one measure in isolation; and
- tailor regulation to the nature of the problem being addressed, the industry concerned, the policy objectives to be achieved and the political, social and economic context of regulation.

Regulatory theory suggests several important lessons for the design of effective public health regulation. First, it affirms that government's role remains central, even when it is not engaged in the direct statutory regulation of business activities. Despite the political and ideological barriers to intervention that governments face, the state can, and should, remain accountable for the public's health and for the performance of public health governance arrangements.[123] The state is subject to democratic processes that make it accountable to the general public;[124] democratic accountability also provides legitimacy for the public health policies introduced by government.[125] By contrast, businesses are designed to pursue private value for shareholders: not only are they less open to public scrutiny, but the objective of improving public health is, at best, peripheral to their goal of maximising revenue.[126] It follows that where governments permit private institutions to self-regulate, they have a responsibility to act as guardians of the public interest, by ensuring that regulatory processes do not prioritise private interests at the expense of legitimate public health goals.[127]

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[120] Neil Gunningham, Peter Grabosky and Darren Sinclair (eds), *Smart Regulation: Designing Environmental Policy* (Oxford University Press, 1998). See also Neil Gunningham and Darren Sinclair, 'Regulatory Pluralism: Designing Policy Mixes for Environmental Protection' (1999) 21 *Law & Policy* 49.

[121] Robert Baldwin and Julia Black, 'Really Responsive Regulation' (2008) 71 *Modern Law Review* 59, 61.

[122] See Bartle and Vass, above n 113.

[123] See also Nuffield Council on Bioethics, above n 107, 25–7; Lawrence Gostin, *Public Health Law: Power, Duty, Restraint* (University of California Press, 2nd ed, 2008) 8–11.

[124] Lars H Gulbrandsen, 'Accountability Arrangements in Non-State Standards Organizations: Instrumental Design and Imitation' (2008) 15 *Organisation* 563.

[125] Lawrence Gostin, 'Legal Foundations of Public Health Law and its Role in Meeting Future Challenges' (2006) 120 (Supp 1) *Public Health* 8, 8.

[126] Julia Black, 'Constructing and Contesting Legitimacy and Accountability in Polycentric Regulatory Regimes' (2008) 2 *Regulation & Governance* 137.

[127] Bartle and Vass, above n 113; David Cohen, 'The Role of the State in a Privatised Regulatory Environment' in Kernaghan Webb (ed), *Voluntary Codes: Private Governance, the Public Interest and Innovation* (Carleton Research Unit for Innovation, Science and Environment, 2004) 35; Peter Vincent-Jones, 'Values and Purpose in Government: Central-Local Relations in Regulatory Perspective' (2002) 29 *Journal of Law and Society* 27.

Second, regulatory theory illustrates the wide variety of methods available to governments to discharge their regulatory role. In circumstances when it is not prescribing regulatory standards, governments may nevertheless: set goals and indicators of success; structure the relationships between different groups that are directly involved in regulation; ensure that regulatory processes are transparent and accountable; and evaluate the extent to which private forms of regulation are successful in achieving public goals. Table 3 identifies a menu of 'regulatory components', each of which could be added to underperforming voluntary schemes in order to redirect performance towards the achievement of public health goals.

The third, and related, point is that public health initiatives can combine a number of regulatory instruments in a complementary and/or a sequential manner. For example, addressing the risk factors for chronic disease, including salt intake, requires a multi-sectoral approach and implies a basket of interventions.[128] However, only some of these will take statutory form, and some may best be introduced in an incremental or step-wise manner.

**Table 3: 'Regulatory scaffolds' for strengthening under-performing voluntary schemes**

| Component of regulation | Form of government intervention | Examples |
|---|---|---|
| Regulatory/policy framework | Determine an overarching policy framework and objectives | Halt and reverse the rise in obesity, reducing the population burden of chronic disease |
| **The content of regulation** | | |
| The goals of voluntary initiatives | Clearly identify the goals of self-regulation; set objectively verifiable targets or performance indicators to be achieved within a defined timeframe | Reduce population-level salt intakes, and set targets for industry to meet in reducing salt levels in certain food products |
| The terms of voluntary initiatives | Define key terms and definitions underpinning voluntary schemes | Create a nutrient profiling model that can be used to identify high salt or low salt products; set standard serving sizes to be used in relation to product labelling |
| **Regulatory processes** | | |
| Administration | Provide for administration of the scheme by an independent body representing a wide range of interests | An administrative committee than includes equal representation from government, industry and public health sectors |

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[128]  Roger S Magnusson, 'What's Law Got To Do With It? Part 1: A Framework for Obesity Prevention' (2008) 5 *Australia and New Zealand Health Policy* 5, 15; G Sacks, B Swinburn and M Lawrence, 'Obesity Policy Action Framework and Analysis Grids for a Comprehensive Policy Approach for Reducing Obesity' (2009) 10 *Obesity Reviews* 76.

| | | |
|---|---|---|
| Monitoring | Ensure that the scheme includes systematic and independent monitoring | Public health and nutrition surveys that include population salt intakes; databases containing information on the nutritional quality of food and beverages; report on compliance by participant companies |
| Review | Ensure that there is regular, independent and structured review of the scheme's overall operation and performance | Review by an independent body including external third-party representation, or by a designated government agency |
| **Enforcement** | | |
| Incentives for compliance | Provide incentives that give participants an economic incentive to comply | Positive publicity for compliant companies, education campaigns to inform consumers, food labelling to shift consumer preferences, tax breaks, investment in research and development |
| Deterring non-compliance | Take steps to deter non-compliance at both company and industry levels | Threaten escalation to other regulatory options, for example, co-regulation or statutory regulation; sanction non-compliant companies through negative publicity, fines, or expulsion from the scheme |

## VII  'Regulatory Scaffolds' for Strengthening Voluntary, Industry-Based Schemes

The starting point for improving voluntary, industry schemes is strong government leadership and supervision. This will be reflected in formal statements setting out core values and principles, goals and objectives, indicators for success, and the respective roles that government and the private sector are expected to play.[129] Collaboration will be required between different government departments and levels of government, and with various non-state actors, including industry and NGOs. Consultation between these stakeholders may help to identify the problems that self-regulation should address, and to ensure that the goals of an industry code are aligned with its underlying public purpose.[130] Targets and indicators of progress are critical: they ensure that industry-initiated schemes are evaluated according to goals set by government, rather than by industry. They may also facilitate an evaluation of the performance of individual companies against these targets, and

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[129]  Heather Yeatman, 'Window of Opportunity — Positioning Food and Nutrition Policy within a Sustainability Agenda' (2008) 32 *Australian and New Zealand Journal of Public Health* 107, 108.

[130]  Taskforce on Industry Self-Regulation, *Industry Self-Regulation in Consumer Markets* (August 2000) Consumer Affairs Division, Department of the Treasury, 60 <http://archive.treasury.gov.au/documents/1131/PDF/final_report.pdf>.

relative to one another (benchmarking).[131] Ultimately, the existence right of self-regulatory schemes in public health governance must depend on their capacity to make a significant and timely contribution to a defensible set of goals for public health improvement. This creates the possibility of conflict, as government seeks to strengthen the performance of industry-designed schemes to achieve more ambitious goals that serve public — rather than purely private — interests.

For these reasons, independent monitoring and evaluation is critical to improving the performance of voluntary schemes. It both increases the transparency of initiatives and ensures that industry is held accountable for its commitments. If a voluntary scheme is performing well, there may be no public interest in government taking on a more direct regulatory role. However, where monitoring shows that voluntary schemes are having no effect, or are producing changes too slowly to achieve public health goals, this may justify escalation towards more intrusive forms of regulation. The monitoring program established by the UKFSA was one of the strengths of the United Kingdom salt reduction initiative. It included:

- a United Kingdom-wide survey that provided baseline data on salt intake, and included 24-hour urine surveys (the 'gold standard' in measuring population salt intake);[132]
- a 'Processed Food Databank' recording information on salt levels in processed foods purchased at regular intervals, which allowed for tracking of salt levels in each food category over time;[133]
- an evaluation of the impact of public awareness campaigns by monitoring changes in consumers' claimed behaviour over time;[134] and
- the publication of companies' pledge delivery plans and annual updates on the Public Health Responsibility Deal website.[135]

In addition to being monitored, the overall performance of private regulatory schemes should be independently reviewed at regular intervals. The review framework should outline the terms of review, including the baseline data that will be collected to judge the scheme's effectiveness, the performance indicators that can be used to measure success, and timeframes for evaluation. As with monitoring activities, external review enhances the responsiveness of self-regulation to stakeholder concerns, and fosters greater transparency and accountability.[136] Governments can increase the transparency of self-regulation by

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[131] Neil Gunningham and Darren Sinclair, *Leaders and Laggards: Next-Generation Environmental Regulation* (Greenleaf, 2002). See also Lisa Sharma, Stephen Teret and Kelly Brownell, 'The Food Industry and Self-Regulation: Standards to Promote Success and to Avoid Public Health Failures' (2010) 100 *American Journal of Public Health* 240, 241.

[132] European Commission, above n 63, 8–9; Corinna Hawkes and Jacqui Webster, 'National Approaches to Monitoring Population Salt Intake: A Trade-Off Between Accuracy and Practicality?' (2012) 7 *PLOS One* e46727 <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0046727>.

[133] European Commission, above n 63.

[134] Ibid.

[135] See Department of Health (UK), *How Progress is Reported* Public Health Responsibility Deal <https://responsibilitydeal.dh.gov.uk/monitoring-progress/>.

[136] Taskforce on Industry Self-Regulation, above n 130, 80.

requiring the results of review activities to be made publicly available, along with annual reports on the scheme's progress.[137]

Businesses have few incentives to comply with voluntary schemes that do not bring commercial gains. Creating incentives for companies to join voluntary schemes, and to change their products in line with their commitments, is therefore vital to the success of such schemes.[138] Studies of regulation suggest that the threat of legislation often provides the impetus for the creation of self-regulation.[139] Therefore, a first step for government is to create an expectation that it will implement more coercive forms of regulation if industry does not participate in voluntary approaches.[140] This illustrates how the state is never absent from self-regulation: government's willingness to signal that it will 'get tough' with uncooperative players will usually be necessary to ensure self-regulation's success.

Governments can take a number of other steps to encourage compliance with voluntary schemes, including publicity campaigns to improve consumer understanding of the scheme and how it works.[141] The United Kingdom's salt reduction initiative included an education campaign: to improve consumers' knowledge of the link between salt and health; to increase demand for less salty products; and to encourage consumers to reduce their salt intake.[142] The UKFSA also encouraged companies to adopt front-of-pack, traffic-light labelling on their products.[143] Although not uniformly adopted, interpretive labelling helped to drive reformulation activity, and encouraged manufacturers and retailers to develop a wider range of healthier products.[144] From June 2013, a front-of-pack traffic-light labelling scheme has been included in the food pledges that food manufacturers and retailers can sign on to under the Responsibility Deal.[145] Evaluative food labelling is an important tool for assisting consumers to rapidly identify products containing low salt levels; however, its greatest impact may be as an economic incentive for companies to reformulate their products.[146]

In addition to encouraging compliance, governments should also consider ways of deterring non-compliance and preventing companies from 'free-riding' on voluntary schemes.[147] The Responsibility Deal has been criticised because a

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[137] Ibid 79.

[138] Neil Gunningham and Joseph Rees, 'Industry Self-Regulation: An Institutional Perspective' (1997) 19 *Law & Policy* 363, 389–92.

[139] See Gunningham and Sinclair, above n 131.

[140] Ayres and Braithwaite, above n 119; John Braithwaite, *To Punish or Persuade: Enforcement of Coal Mine Safety* (State University of New York Press, 1985).

[141] Taskforce on Industry Self-Regulation, above n 130, 60. See also Australian Competition and Consumer Commission, *Guidelines for Developing Effective Voluntary Industry Codes of Conduct* (2011) 7 <http://www.accc.gov.au/system/files/Guidelines%20for%20developing%20effective% 20voluntary%20industry%20codes%20of%20conduct.pdf>; Karen Yeung, 'Government by Publicity Management: Sunlight or Spin?' (2005) 2 *Public Law* 360.

[142] Wyness, Butriss and Stanner, above n 64, 256.

[143] See Magnusson, above n 105.

[144] Wyness, Butriss and Stanner, above n 64, 256.

[145] Department of Health, above n 75.

[146] See Magnusson, above n 105; Pirjo Pietinen et al, 'Labelling the Salt Content in Foods: A Useful Tool in Reducing Sodium Intake in Finland' (2008) 11 *Public Health Nutrition* 335.

[147] Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (Harvard University Press, 1971).

number of large fast-food chains and food outlets have failed to sign the food pledges.[148] Since there are no sanctions for refusing to join the Deal, or for failing to comply with its pledges, these companies are able to 'free-ride' on the benefits generated by companies that do join and comply. These problems suggest that self-regulation should include enforcement measures, beginning with 'naming and shaming' companies that refuse to participate in the scheme, but moving to more coercive methods of deterring non-compliance, such as expulsion of repeat offenders from voluntary programs, mandated compliance with voluntary schemes (for individual companies), or referring serious cases of non-compliance to a government regulator.[149]

## VIII  A Model for Reducing Population Salt Consumption in Australia

To summarise so far: reducing average salt intake is an urgent public health priority. In countries like Australia, where most salt in food is added to processed and pre-prepared food prior to sale, progress requires food reformulation. There is no evidence that Australia's Food and Health Dialogue — a pale imitation of the United Kingdom's salt reduction program — is capable of reducing population salt intake down to an appropriate target, such as 6g/per day. At the same time, the Australian government faces significant pressure from the food industry not to legislate or to strengthen regulatory standards. In this section, we draw together our analysis of the challenges of public health regulation under conditions of regulatory capitalism by outlining a specific strategy for accelerating Australia's salt reduction efforts.

Our approach rests on three assumptions. First, we accept that government is accountable for the health of the population and owes a responsibility to help to create the conditions in which all members of the population can live healthy and productive lives.[150] At the same time, the state should take full advantage of industry willingness to voluntarily create healthier products, provided it monitors the performance of private regulation and is willing to escalate from self-regulation towards co-regulation if industry fails to play its part.

Second, the process of escalating government involvement in regulation does not necessarily require government to design a new regulatory system. Specific interventions ('regulatory scaffolds') should be used in those areas of weakness that undermine the capacity of the regulatory system to achieve public objectives. In Table 3, we analysed self-regulatory systems in terms of three domains: regulatory content (goals, targets, specific terms and conditions), regulatory processes (administration, monitoring, review), and enforcement (incentives for compliance and penalties for non-compliance). Strengthening a

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[148]  Hashem, Haigh and Powell, above n 81.

[149]  See Ayres and Braithwaite, above n 119; Gunningham and Sinclair, above n 131.

[150]  Gostin, above n 123, 8–10; Nuffield Council on Bioethics, above n 107, 13–28; Robert Beaglehole et al, 'Public Health in the New Era: Improving Health through Collective Action' (2004) 363 *Lancet* 2084.

non-performing self-regulatory scheme will require changes in each of these domains.

Third, food reformulation is likely to work best as part of a set of mutually reinforcing interventions aimed at reducing population-level salt intake. However, since 75–80 per cent of Australia's salt intake is added to food prior to sale,[151] food reformulation is likely to be the most powerful intervention. Important complementary policies include gradual reductions in the volume of high salt products available for purchase in supermarkets,[152] reductions in salt in products supplied by caterers to schools, hospitals and other public agencies and institutions, and reductions in salt added to food by consumers. (See Appendices to this article.)

Our model for accelerating progress on salt reduction emphasises three concurrent strategies. These are: food reformulation to reduce the salt content of processed, pre-prepared and quick-serve restaurant foods; an interpretive food labelling scheme to draw attention to products that are high in salt; and education and social marketing to encourage consumers to understand and use nutrition labels and to choose lower-salt products.[153]

Parts of the first strategy have already been considered by government. In June 2013 (prior to the election of the Liberal/National coalition government in September 2013), state and federal health ministers approved an interpretive, front-of-pack 'Health Star Rating system' that will assist consumers to distinguish quickly between products with higher and lower salt levels.[154] A website explaining the new scheme was launched in February 2014, but was removed almost immediately following an intervention by the chief of staff of the Assistant Federal Health Minister, Senator Fiona Nash MP.[155] In December 2013, the minister informed state and territory health ministers (constituting the Legislative and Governance Forum on Food Regulation) that she had directed the Department of Health to conduct a cost-benefit analysis of the scheme, and to report back to the

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[151]    See Food Standards Australia New Zealand, above n 35.

[152]    In Australia in 2010–11, supermarket sales accounted for 67 per cent of total food and beverage sales (excluding liquor). Food service channels (takeaway food, cafés, and restaurants) accounted for 25 per cent of food and beverage spending: S Spencer and M Kneebone, 'FOODmap: An Analysis of the Australian Food Supply Chain' (Department of Agriculture, Fisheries and Forestry, 2012) 10.

[153]    These three are the key areas for intervention in successful salt reduction initiatives in other countries: see Feng J He, Katharine H Jenner and Graham A MacGregor, 'WASH — World Action on Salt and Health' (2010) 78 *Kidney International* 745; Jacqueline L Webster et al, 'Consumer Awareness and Self-Reported Behaviours Related to Salt Consumption in Australia' (2010) 19 *Asia Pacific Journal of Clinical Nutrition* 550.

[154]    See The Hon Shayne Neumann MP, Parliamentary Secretary for Health and Ageing, *Final Communiqué — Legislative and Governance Forum on Food Regulation*, above n 105.

[155]    The chief of staff, Alastair Furnival, later resigned when it was revealed that his wife was the owner of a lobbying firm (APA) whose clients included the Australian Beverages Council (which represents Schweppes, Pepsi and Coca-Cola) and Mondelez, the parent company of Kraft and Cadbury. Prior to taking up his position in government, Furnival was chairman of APA and he remained a director of a firm that owned a share of the company: Lenore Taylor, 'Fiona Nash's Chief of Staff Resigns amid Food Ratings Controversy', *The Guardian* (online), 14 February 2014 <http://www.theguardian.com/world/2014/feb/14/fiona-nashs-chief-of-staff-resigns-amid-food-ratings-controversy>.

Forum in June 2014.[156] At the time of writing, the implementation of the food star rating system remains in doubt.

The Standard on Nutrition, Health and Related Claims, recently completed by Food Standards Australia New Zealand, also requires that products making a low-, reduced- or no-salt claim contain no more than the maximum level of salt set out in the Standard.[157] A warning label to alert consumers about high-salt products was central to Finland's comprehensive program for reducing salt intake,[158] but is likely to face intense industry resistance in Australia for the obvious reason that it could persuade consumers not to buy high-salt products. Nevertheless, it could provide an important back-up measure if the food industry fails to meet salt reduction targets set through a voluntary process.[159]

We focus here on food reformulation, building on the conceptual components for strengthening a self-regulatory scheme, set out in Table 3. The elements we discuss are: an overall salt reduction target; targets for all relevant food sub-categories; the participation of major food manufacturers and retailers; the substantive responsibilities undertaken by food industry participants to meet reformulation targets; the administration of the scheme; monitoring of the performance of participants and review of the scheme; and incentives and penalties for compliance. Our approach gives the food industry the opportunity to demonstrate leadership on a voluntary basis (in phase one), yet also the incentive to do so in a timely manner. If interim targets are not met under phase one, phase two controls could be introduced. Individual companies that persisted in undermining the process could become subject to specific regulation in phase three.[160] A phased approach has the benefit of providing a clearer justification for legislative support (in phases two and three) when 'softer', market-based measures fail.

## Baseline Data

To engage the food industry in a credible manner, government will need accurate baseline data on population sodium intake based on 24-hour urine samples,[161] together with a food databank recording baseline average salt levels across those

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[156]  Legislative and Governance Forum on Food Regulation, *Final Communiqué* (13 December 2013) <https://www.health.gov.au/internet/main/publishing.nsf/Content/ACA58089FC311682CA257BF0 001CAB86/$File/Final%20Forum%20Communique%2013%20December%202013.pdf >.

[157]  See *Australia New Zealand Food Standards Code* (18 January 2013) Standard 1.2.7 'Nutrition, Health and Related Claims' <http://www.foodstandards.gov.au/foodstandards/foodstandardscode.cfm>.

[158]  Karppanen and Mervaala, above n 91.

[159]  In 2011, an independent panel reviewed food labelling law and policy in Australia. While the panel recommended the introduction of a single, interpretive, front-of-pack labelling scheme, it was more circumspect in relation to the use of government-mandated messages to support preventive health strategies: Neal Blewett et al, *Labelling Logic: Review of Food Labelling Law and Policy* (Commonwealth of Australia, 2011) 120–6. The Panel recommended that if such messages were introduced (such as food labels to warn consumers of the dangers of consuming products high in salt), they should meet a number of conditions, including strong supporting epidemiological evidence, and consistency with a comprehensive nutrition policy: at 77.

[160]  See the similar 'two-track' system proposed by Gunningham and Johnstone for improving the regulation of occupational health and safety: Neil Gunningham and Richard Johnstone, *Regulating Workplace Safety: Systems and Sanctions* (Oxford University Press, 1999) chs 4–5.

[161]  Hawkes and Webster, above n 132.

processed food categories and sub-categories for which targets will be set. As in the United Kingdom, this databank should be updated at least biannually, to permit tracking of salt levels within each food category, and evaluation of progress towards interim targets.[162]

## Targets and Timelines

The foundation stone of a successful framework for salt reduction is an overall salt reduction target, such as the 5g per person per day recommended by the WHO,[163] or 6g/day adopted by the UKFSA.[164] The NHMRC has recommended an upper limit of 2,300mg sodium/day (about 6g),[165] but this is not a formal target adopted by the Food and Health Dialogue. A national target provides: an important signal to industry of government expectations; an incentive for industry to accelerate progress; and the ultimate standard against which to measure the performance of voluntary efforts. Informed by evidence of current average sodium intake, a timeframe for meeting the overall target should also be set, such as seven or eight years.

Once a national salt reduction target has been met, it is important to identify that share of the overall target for which food manufacturers — through their food reformulation efforts — should be assigned responsibility. We refer to this as the 'food reformulation target'. Currently the Food and Health Dialogue aims to reduce salt levels across some commonly consumed foods. What is needed, however, is for stakeholders to agree on a broader set of category-specific targets which, if achieved over the agreed timeframe, would also achieve the food reformulation target. The government will need strong intellectual capacity in nutrition and food systems modelling in order to develop the evidence base to engage effectively with the food industry, and to provide meaningful oversight of a voluntary scheme. The critical point, however, is to ensure that the food reformulation process includes targets for a significantly larger number of food categories (especially high-volume products), and ensures that targets are sufficiently aggressive to meet the food reformulation target within the agreed timeframe. The Australian Division of World Action on Salt and Health has already set 'challenging yet feasible' targets for 85 food categories, informed by the 2012 salt targets that were set in 2009 by the UKFSA.[166]

In addition to manufacturers, supermarkets and restaurant chains would be expected to develop and implement strategies to reduce the overall volume of salt contained in products scanned past cash registers. Retailers can use their significant purchasing power to push manufacturers to reduce salt levels, retire high-salt products from the shelves, and prioritise shelving and displays for lower salt products. We refer to this as the 'retailers' salt reduction target'. Modelling would be needed to identify the appropriate target, representing that proportion of

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[162] European Commission, above n 63.
[163] WHO, above n 9.
[164] European Commission, above n 63.
[165] NHMRC, above n 31, 231.
[166] George Institute for International Health, *Drop the Salt! Interim Australian Targets for Sodium Levels in 85 Food Categories* (2011) <http://www.awash.org.au/wp-content/uploads/2012/10/Interim-Salt-Targets-for-Australia-March-2011.pdf >.

the overall salt reduction target for which supermarkets should be collectively responsible. This target could be expressed as a percentage reduction from a baseline representing current, average salt levels across relevant food categories sold in major supermarket chains; for example, a five per cent reduction every two years, and a 20 per cent reduction overall.[167] Although chain restaurants are food retailers, they offer a relatively stable set of menu options, exert full control over suppliers, and in many cases food is prepared on site: for these reasons chain restaurants might be better regulated as manufacturers with targets set for particular items and meal options.

## *Structuring Accountability*

The aspiration of voluntary salt reduction programs is to achieve changes in the collective behaviour of the food industry, and substantial reductions in average salt levels across relevant product categories, while minimising the burden of regulation that applies to individual companies and products. By focusing on outcomes at the collective level, government defers to the commercial preferences and technical expertise of business about how best to achieve the desired outcome. This gives individual companies the opportunity to reduce salt incrementally, minimising any impact on product acceptability. Government also avoids the 'nanny state' criticisms that would come from setting an official, statutory limit for salt in baked beans, for example.

## *Reducing Gaming*

At the same time, there is a risk of gaming if compliance with the salt reduction target for each product category simply means that each company must ensure that their portfolio of products, on average, meet the target for that category, especially if evaluation takes no account of sales volumes of higher-salt products. A company may offset its high-salt products by introducing some reduced-salt variants, meeting the unweighted average for salt levels across its product portfolio while continuing to sell large volumes of high-salt products. For example, over the period 2007–10, the 'maximum' sodium reduction target of 400mg/100g set for bread, under the Food and Health Dialogue, did not prevent bread manufacturers from introducing new products with very high salt content.[168] In addition, it also resulted in the removal from the market of breads with very low sodium content.

The risk of gaming is reduced by: requiring companies to develop action plans for salt reduction and to account specifically for their high-salt products; obliging companies to report annually on the actions they took to implement action plans; conducting periodic, independent audits of how companies are implementing their action plans; and introducing maximum salt caps for a select number of high-volume product categories that account for the largest share of

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[167]   Sugarman has proposed that regulated firms reduce overall levels of sugar, saturated fat and sodium by five per cent for each of five years: 'Enticing Business to Create a Healthier American Diet', above n 87, 56.

[168]   Dunford et al, above n 51, 348.

excess salt intake. The level set for a maximum salt target would necessarily be higher than the average target for each category and, by its nature, a maximum salt cap would apply specifically to all products within the category. Even if the salt cap applied only to new products introduced into the market, over time this would have a powerful effect on average salt levels in the food supply.[169]

Where feasible, any evaluation of the progress of food manufacturers towards achieving average salt reduction targets should take account of purchasing volumes for each category and sub-category. This is because where market leaders have higher salt content, the weighted average salt levels in each sub-category will be higher than the unweighted average, and compliance with unweighted average targets will overestimate the true reductions in average salt consumption that have been achieved.[170]

## Interim Targets

In order to facilitate the tracking of progress towards the targets over the timeframe, a set of biannual (interim) targets should also be set. Interim targets — for each food category for which a final target has been set — recognise that incremental or step-wise reductions in salt levels are needed in order to minimise consumer rejection of reformulated brands, while nevertheless ensuring the accountability of food companies for implementing their salt reduction action plans. As in the United Kingdom, the best approach would be for government to develop a draft strategy for initiating negotiations with large food manufacturers that includes both final and interim targets for each food category, to be met over the agreed timeframe.

## Incentives

In summary, progress in salt reductions should be guided by average targets for each product category, combined with an upper limit or 'salt cap' for at least those high-volume and high-salt categories that currently account for significant excess salt intake. In phase one, the average target would be imposed on the food industry collectively, rather than on individual companies. Although the salt caps would apply specifically to all products within the category and to each company manufacturing them, compliance would be voluntary. On the other hand, all *new* products introduced into the market that exceeded the salt cap should be required to bear a label warning consumers that the product contains high salt levels. Government could also increase market pressure for regulated companies to meet the salt cap for existing products by monitoring industry performance and creating a publicly accessible list of non-complying products. Media interest in this list is

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[169]    As described above, the new salt pledge under the UK Public Health Responsibility Deal requires participants to meet maximum salt levels for new products introduced into the market. See Department of Health, above n 79.

[170]    Cliona Ni Mhurchu et al, 'Sodium Content of Processed Foods in the United Kingdom: Analysis of 44 000 Foods Purchased by 21 000 Households' (2011) 93 *American Journal of Clinical Nutrition* 594, 598.

likely to be high, creating a significant disincentive to breaching the cap for existing products.

In phase two, the average salt reduction target would become a requirement that applied specifically to each manufacturer's product portfolio. Compliance with this requirement could, potentially, be mandatory. However, it is worth remembering that the number of products manufactured in each category may vary significantly between different companies; for example, one company may manufacture a full suite of condiments, while another may produce a single brand of barbecue sauce. It might be appropriate to impose the average target as a mandatory requirement for the portfolio of the former company, but less appropriate in the case of the second company, provided it was making steady efforts to bring its high-salt barbecue sauce down towards the category average. For this reason, in phase two, average salt reduction targets might be best enforced by requiring companies to file action plans, and to report annually on actions taken to achieve the average in each product category. Companies could be praised or 'named and shamed' in accordance with their actions.

In phase two, compliance with salt caps for existing products would also remain voluntary; however, companies that failed to reformulate non-complying products within a nominated period would be required to include a mandatory label warning consumers that the product was high in salt. In parallel with mass media and social marketing campaigns to encourage consumers to reduce their salt intake, this 'penalty' could be a significant incentive for compliance.

Finally, in phase three, if auditing revealed that companies were failing to implement action plans to meet average and maximum salt levels, an independent regulator would have the power to require companies to give court-enforceable undertakings, with penalties for non-compliance.[171] Table 4 summarises our approach to the progressive imposition of average and maximum salt targets for those food categories that make the largest contribution to excess salt intake.

**Table 4:   Application and enforceability of targets for salt reduction**

| Phase 1 | |
| --- | --- |
| Average salt reduction targets applying to each product category, sub-category | Targets to be met by signatories to the Salt Reduction Compact collectively. |
| | Compliance with targets would be voluntary. |
| Salt caps for product categories that account for significant excess salt intake | Salt caps would apply to individual products within all categories for which a salt cap had been set. |
| | Compliance with salt caps for existing products would be voluntary. However, all *new products* introduced into the market with salt levels exceeding the salt cap would require a 'high salt' warning label. |

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[171]   A precedent for this approach exists with the Australian Competition and Consumer Commission, which is authorised to accept court-enforceable undertakings under the *Competition and Consumer Act 2010* (Cth) s 87B, the *Australian Securities and Investments Commission Act 2001* (Cth) ss 93AA–93A, and the *Water Act 2007* (Cth) ss 163–4.

| | Companies would be required to file company action plans and to report annually on actions taken to meet interim average targets. |
|---|---|
| **Phase 2** | |
| Average salt reduction targets applying to each product category, sub-category | Targets would apply to the product portfolio of each signatory to the Salt Reduction Compact. |
| | The requirement to file a company action plan for meeting average targets and to report on annual progress would become mandatory. |
| | Compliance with targets would be voluntary, but companies that failed to meet the category average could be publicly 'named and shamed' by the regulator. |
| Salt caps for product categories that account for significant excess salt intake | Salt caps would apply specifically to each food manufacturer. |
| | Salt caps would apply to individual products within all categories for which a salt cap had been set. |
| | Compliance with salt caps for existing products would be voluntary, but companies that failed to comply would be required to place a label on non-complying products warning of high salt levels. |
| **Phase 3** | |
| The regulator could require companies to give court-enforceable undertakings about company compliance with salt caps and with action plans to meet average salt reduction targets. | |

## Participation

The Food and Health Dialogue is currently convened by the Department of Health. In phase one, the Department would seek to strengthen salt negotiations by reframing the Dialogue as a joint government/industry 'Salt Reduction Compact'. Major food manufacturers, retailers and restaurant chains whose sales contribute the largest volume of salt to the diet, as judged by turnover derived in the preceding year from priority product categories, would be requested to join the Compact. The Department would convene a High-Level Steering Committee ('HLSC') comprising food industry representatives, carefully balanced with representation from the Department of Health and relevant portfolio agencies (Food Standards Australia New Zealand ('FSANZ') and the NHMRC), public health organisations, nutrition experts and consumer groups. The HLSC would have overall responsibility for reviewing the draft targets proposed in the draft strategy, and agreeing on a timeframe for achieving them.

Australia's food sector is highly concentrated: a relatively small number of supermarkets, food manufacturers and chain restaurants account for a large proportion of sales.[172] Although smaller manufacturers and retailers may also sell high-salt products, the obligation to improve the food supply is one that is

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[172]   In 2010–11, Coles and Woolworths accounted for 68 per cent of total food and liquor retail sales, through 2300 supermarket and 2040 liquor outlets: Spencer and Kneebone, above n 152, 11.

appropriately undertaken by those companies whose sales volumes contribute the greatest share of salt to the national diet.[173] Nevertheless, smaller manufacturers and retailers would also be encouraged to sign on to the targets set out in the Salt Reduction Compact. Smaller companies selling high-salt products might also be required by the Department to join the Compact by virtue of their high-salt product portfolio or business practices.

In phase two, the obligation to join the Salt Reduction Compact and to develop salt reduction strategies would become mandatory for larger food manufacturers, with penalties for failing to prepare an action plan for salt reduction and to report annually on progress. One way for government to signal its intention to secure industry cooperation would be to transfer administration of the Compact in phase two to an independent regulator, such as FSANZ. The regulating agency would require a statutory mandate, including the power to acquire information and, in cases of blatant non-compliance (phase three), the power to accept court-enforceable undertakings and to issue orders deferring sale of high-salt products that breach salt caps.

## Substantive Obligations of Signatories

In phase one, the HLSC would be responsible for achieving agreement on final food reformulation targets, interim targets and timelines, and for securing the participation and commitment of all major food industry participants. The HLSC would convene an expanded number of food reformulation working parties in order to set targets for each food category: these would be submitted to the HLSC for approval. The average salt reduction targets for each food category would not dictate which brands or products should be targeted for salt reductions by individual companies, except to the extent that they exceeded maximum salt caps. Product and category reformulation strategies may vary between food companies, depending on their product portfolio, resources and market factors.

Voluntary regulation would be a success if: major food manufacturers, retailers and restaurant chains signed the Compact, developed company-wide salt reduction strategies, and reformulated their products in order to meet interim targets in accordance with the agreed timeline. Signatories would be expected to report annually on their progress to the Department, with full protection of commercially sensitive information. If phase two controls were introduced, the food category targets contained in the draft strategy could become mandatory targets, and companies would be legally required to file action plans and annual progress reports. Companies that failed to reformulate their products to meet maximum targets would be required to place 'high-salt' warning labels on non-complying products. Companies that failed to meet average salt targets for each food category within their portfolio could be singled out for criticism by the regulator, or could become subject to with court-enforceable undertakings to remedy blatant breaches under a supervised regime.

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[173]  Appropriately, the Food and Health Dialogue currently seeks to 'engage the largest (based on market share) in each nominated food category', based on the '80/20 rule': Food and Health Dialogue, *FAQs*, above n 62.

## IX   Conclusion

Reducing population salt intake is perhaps the most powerful way of preventing premature death in Australia. Current voluntary efforts, through the Food and Health Dialogue, are having little impact on the salt content of processed foods, and if Australia wishes to reduce the preventable burden of disease associated with excess salt consumption, a new approach is urgently needed. An important goal is to impose collective accountability on food manufacturers and retailers for achieving significant overall salt reductions, while avoiding the imposition of specific controls on companies and products, for so long as voluntary efforts remain on track. This can best be achieved through a 'responsive regulatory approach', which uses legislative scaffolds to strengthen the regulatory framework progressively, in circumstances where private regulation fails.[174]

The success of a responsive regulatory approach begins with the exercise of political power: an unambiguous declaration of government commitment to achieving targets for salt reduction, and a credible expectation that government will escalate levels of regulation if voluntary efforts fail. In phase one of the strategy, food manufacturers would have the opportunity to negotiate a set of targets that — collectively — could achieve the food reformulation target over a reasonable timeframe. These should include both final and interim (biannual) targets for average sodium levels in each food category, weighted by sales volumes, as well as maximum salt caps for major food categories, and for all new products.

Previous successful public health initiatives like tobacco control might suggest the immediate imposition of mandatory salt reduction targets for processed food.[175] However, a phased approach is more politically feasible, and has the additional benefit of creating a strong incentive for industry to remain at phase one. Depending on industry's level of cooperation and its success in meeting salt reduction targets, salt reduction efforts would remain largely voluntary, or evolve into a co-regulatory or largely mandatory scheme.

In phase two, the Salt Reduction Compact would be administered by a health portfolio agency, participation would become mandatory, companies selling products that exceed the salt caps would need to include warning labels or face penalties, and each participant's level of compliance in bringing its product portfolio within the average targets for each food category would be publicly reported. If a company failed to take steps, in good faith, towards meeting its commitments under phase two, the regulator could require company-specific, court-enforceable undertakings (phase three).

The food supply will be a major battleground for improving health this century. The food industry is responsible for most of the salt that is added to food, and choosing products for a low-salt diet is difficult. The costs of excess salt consumption — both healthcare costs and lost productivity — are externalised by food manufacturers and retailers onto consumers, families, employers and insurers.

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[174]   Reeve and Magnusson, above n 97.
[175]   See above, n 23.

The Australian government's preference for voluntary approaches to reducing risk factors does not mean that government should tolerate non-performing schemes that not only fail to achieve their targets, but *have no targets*. Delegating sole responsibility for the health outcomes of dietary choices to individuals, while exempting the food industry from responsibility, makes no sense in an environment where the treatment costs of preventable diseases are occupying a larger and larger share of government budgets.[176] The process we have outlined makes maximum use of market-based incentives, including public praise or criticism of the efforts of food companies in meeting targets, and warning labels on products that exceed salt caps. Where voluntary measures fail, additional regulatory scaffolds are necessary and justified. While our approach does not dictate the dietary choices of consumers, it does aim significantly to change the food supply over time, creating an environment in which healthy choices are easier, both for individuals and populations.

## Appendix A: Potential salt reduction interventions directed at the food industry

| Variables affecting dietary salt intake | Point in food supply chain | Specific interventions |
|---|---|---|
| Amount of salt added at time of manufacture | Product development/food manufacture | Monitor salt levels in key products and product categories. |
| | | Set a national target for reducing salt intake in the population (eg, the United Kingdom salt reduction initiative aimed to reduce salt intake from 9.5g per person per day in 2003 to 6g in 2010). |
| | | Set mandatory upper limits on the amount of sodium in those categories of processed foods that make the greatest contribution to excess salt consumption. |
| | | Set prescriptive 'aggregate' targets for reductions in salt that manufacturers and retailers must meet, with a high degree of autonomy with respect to individual products and product categories. Impose penalties on companies that fail to reach these targets, and/or reward those companies that do. |
| | | Extend the Food and Health Dialogue to cover all major product categories; require mandatory participation by manufacturers and retailers with large turnovers; set timeframes for participants to meet reformulation targets; monitor progress towards meeting targets and create a clear expectation that more coercive forms of regulation will follow if the food industry fails to meet salt reduction targets. |

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[176]  See above, n 33.

| Advertising of high-salt foods in the media and at retail; placement and shelf space for high-salt foods in retail environments | Product labelling/packaging | Mandatory warning labels that draw attention to foods that are high in salt for packaged foods, pre-prepared foods and restaurant meals. |
| | | Develop a logo or symbol that can be used to promote products that are low in salt. |
| | | Traffic-light labelling for salt that identifies products as high (red light), medium (amber light) or low (green light) in sodium. |
| | Food marketing/promotion | Place restrictions on advertising for food products high in salt or impose mandatory warnings in advertisements for products high in salt. |
| | Retailing | Develop national nutrition standards for catering in public institutions, including government departments, hospitals, prisons and schools. Create healthy breakfast and lunch programs in schools and remove high-salt foods from vending machines in public institutions. |
| | | Set targets for aggregate reductions in the amount of salt in products sold by food retailers (supermarkets and restaurants), to be met within a specific timeframe. Retailers would have discretion in how to meet these targets: eg, by stocking fewer high-salt products, pressuring suppliers to reduce salt levels in their products, or giving greater prominence and shelf space to salt-reduced products. |
| | | Require retailers to ensure that traffic-light labelling appears on all food products falling within those product categories that make the greatest contribution to excess salt consumption. |

## Appendix B: Potential salt reduction interventions directed at consumers

| Variables affecting dietary salt intake | Point in food supply chain | Specific interventions |
| --- | --- | --- |
| Frequency and volume of high salt products purchased at retail | Individual purchasing | Review taxation system to provide economic incentives for purchasing lower-salt products and disincentives to purchasing higher-salt products; eg, impose a tax on salt as an input into food; raise taxes on products that exceed a nominated salt cap. Salt caps could gradually reduce over time. In Australia, this tax would need to be imposed at the federal level. |
| Amount of salt added at time of consumption

Frequency and volume of high salt products consumed | Individual consumption | Monitor population salt intake.

Disseminate information through the mass media about recommended daily salt consumption and the health benefits of reduced salt intake through the mass media. |