



POLICY BRIEF

A COMPREHENSIVE POLICY PROGRAM TO REDUCE CONSUMPTION OF SUGARY DRINKS IN AUSTRALIA

Summary

Australians experience high rates of overweight, obesity and chronic disease. The National Health Survey for 2014–15 reports that 63.4% of Australians are overweight or obese and 27.4% of children, ages 5–17 are overweight or obese.¹ These alarming figures mean a large proportion of the population is at heightened risk of non-communicable diseases (NCD) including cardiovascular disease, type 2 diabetes and some cancers.²

Although many factors influence these high rates of obesity, research suggests that sugary drinks¹ play a significant role in driving obesity trends. Sugary drinks including soft drinks, sports drinks, sweetened mineral waters and cordials contribute almost no valuable nutrients to Australian diets (except water), but deliver large quantities of sugar. A single can of Coke contains 40g of sugar (approximately 10 teaspoons). Australians are high consumers of sugary drink products. Robust evidence has associated the consumption of these products with increased energy intake, weight gain, type 2 diabetes and dental erosion.³ In light of the evidence linking sugary drinks consumption to a range of negative health impacts, global health agencies have recommended that sugary drinks consumption to be restricted⁴ or avoided altogether.⁵

The factors influencing consumption of sugary drinks are many and complex. A coordinated set of policy measures, targeting both individual and environmental drivers of consumption, will be needed to reduce consumption and positively influence health.⁶

This paper discusses the need for action to reduce sugary drinks consumption in Australia and provides an overview of a proposed comprehensive policy approach. Such an approach should be led by the Federal Government in order to achieve consistent

and widespread implementation. It should include a program of integrated strategies including the following five elements:

- 1 Pricing and economic tools to reduce consumption of sugary drinks and promote consumption of water.
- 2 Effective controls to reduce children's exposure to marketing for sugary drinks, including through sport.
- 3 Effective social marketing campaigns to foster public awareness of the health implications of sugary drinks consumption.
- 4 Phasing out of sugary drinks availability in schools and children's settings.
- 5 Reduced availability and promotion in workplaces, health care settings and public institutions.

What is the problem?

a. Health impacts of sugary drinks consumption

Systematic reviews of the evidence have found that consumption of sugary drinks is associated with increased energy intake, weight gain and obesity,⁷ as well as other negative health impacts including metabolic syndrome and type 2 diabetes.⁸ Association between sugary drink consumption and BMI is not only shown in adults, but in children,⁹ including young children aged 2–5.¹⁰ Obesity is a leading risk factor for type 2 diabetes, cardiovascular disease and some cancers, including endometrial, oesophageal, renal, gallbladder, bowel and postmenopausal breast cancers.¹¹ Studies have also found a clear relationship between the amount and frequency of sugary drinks consumed and an increased risk of dental erosion.¹²

¹ 'Sugary drinks' refers here to all non-alcoholic water-based beverages with added sugar, including sugar-sweetened soft drinks, energy drinks, fruit drinks, sports drinks and cordial. This term does not include milk-based products, 100% fruit juice or non-

sugar sweetened beverages (i.e. artificial, non-nutritive or intensely sweetened). 'Sugary soft drinks' refer to all non-alcoholic carbonated drinks.

In the case of soft drinks, research suggests that people do not compensate for the additional energy they consume from these drinks by reducing consumption of other foods, leading to increased overall energy intake.¹³ There is also evidence that the increase in energy intake is greater than that which can be attributed to these drinks alone, indicating that drinking sugary soft drinks may lead people to consume more energy from other sources.¹⁴ It is posited this may be because sugary soft drinks stimulate appetite or suppress satiety. There is also a body of evidence to suggest that frequent consumption of drinks sweetened with non-nutritive sweeteners (such as 'diet' drinks) may also lead to a range of negative health outcomes similar to those associated with sugary drink consumption.¹⁵

Interestingly, in addition to finding positive associations between the intake of sugary drinks and body weight, meta-analysis of the research base has shown stronger associations in studies that were not funded by the beverage industry than in those that were not.¹⁶ Other US-based analyses have also found that studies funded by the food and beverage industry are more likely to find smaller associations between sugary drink consumption and weight increase.¹⁷

Evidence of the negative health effects of sugary drinks has led international health organisations, including the World Health Organization (WHO) and World Cancer Research Fund (WCRF), to report sugary drink consumption to be a probable risk factor for weight gain and obesity and to recommend that its consumption be restricted (WHO) or avoided (WCRF).^{18 19} The WHO's guidelines on sugar consumption now recommend that free sugar intake be restricted to less than 10% of a person's energy intake and to 5% for the best health outcomes.²⁰

Australia's dietary guidelines also recommend limiting the intake of food and drinks containing added sugar and, in particular, limiting sugary drinks.²¹ The evidence around obesity and the contribution of sugary drinks is complex, however taken together, there is compelling evidence that decreasing sugary drinks will decrease the risk of obesity and related diseases.²²

b. Australia's consumption of sugary drinks

Sugary drinks are consumed by large numbers of adults and children in Australia.^{23 24 25} In arguing against measures to reduce sugary drink consumption, the beverage industry has relied heavily on evidence of an overall decrease in per capita sugar consumption in Australia in recent decades, during which period obesity levels have risen.²⁶ The data

underpinning the 'Australia Paradox' (inverse trends of sugar consumption and obesity prevalence) has been convincingly argued to be flawed, however, and efforts to accurately quantify sugar consumption have been hampered by lack of collection of food supply data.²⁷ Available data suggests a large increase in the volume and value of imported sweetened products in recent decades.

Regardless of trends, it is indisputable that consumption rates of sugary drinks remain very high.²⁸ Sugary soft drinks continue to hold the largest volume share of 'water-based beverage' sales in Australia.^{29 30} Just looking at supermarket retail sales, Australians bought around 1.1 billion litres of sugary soft drinks in 2015, at a cost of \$2.2 billion. This doesn't include what is bought from fast-food outlets, cinemas, vending machines, hotels and convenience stores.³¹

Some population groups consume greater quantities of sugary drinks than others, with relatively high soft drink consumption seen in adults of lower socio-economic position (SEP)³² and young Australians.³³ A recent analysis of added sugar consumption in the Australian population has found that most people exceeded the World Health Organization guidelines on free sugar consumption. The study also found that sugary drinks accounted for the greatest proportion of added sugar intake in the population. It confirmed a high intake of sugar in adolescents, with 14–18 year-olds consuming the greatest amount of added sugar, and that the highest contributor of that added sugar was from sugary drinks.³⁴

A comprehensive policy framework to reduce sugary drink consumption

a. Economic strategies to reduce consumption

Price can effectively influence consumption of sugary drinks.³⁵ Consistent with the known influence of price on consumption behaviours across a range of products, the World Health Organization (WHO) recommendations contained in the *Global Action Plan for the Prevention and Control of Non-communicable Diseases 2013–2020* note that States' policy programs to combat obesity should include economic tools, including taxes and subsidies, to improve the affordability of healthier food products and discourage the consumption of less healthy options.³⁶ The report of WHO's Ending Childhood Obesity Commission restates the recommendation of an effective tax on

sugary drinks. The Commission clearly states that there is sufficient rationale to implement a tax on sugary drinks.³⁷

In Australia, similar recommendations have been considered, following the 2009 report of the National Preventative Health Taskforce (commissioned by the then Commonwealth Government), which recommended "a review of economic policies and taxation systems" and the development of "methods for using taxation, grants, pricing, incentives and/or subsidies to promote production, access to and consumption of healthier foods".³⁸ Specifically, the taskforce recommended that the government "provide disincentives for unhealthy foods by considering increasing taxes for energy-dense foods".³⁹ The Government at the time declined to undertake a review of tax systems.

In particular, categories of sugary drinks have been found to have a price elasticity of demand that means targeted price increases can effectively reduce consumption.⁴⁰ Modelling using current consumption and cross-price elasticity data in Australia and comparable jurisdictions has estimated that a price increase of 20% on sugary drinks is likely to result in decreases in population energy consumption and BMI, with a resultant increase in life years and sustained reductions in incidence of type 2 diabetes, cardiovascular disease and some cancers, resulting in thousands of healthy life years gained and millions of dollars saved in healthcare costs.⁴¹

Sugary drink taxes are being introduced across the world. The UK introduced a sugary drink levy on manufacturers in April 2018 and Mexico introduced a tax of approximately 10% on 1 January 2014. Evaluation data from Mexico demonstrates that the tax was generally passed on through the prices and that consumers have reduced their purchases of taxed beverages. Purchases of taxed beverages decreased 5.5% in 2014 and 9.7% in 2015, yielding an average reduction of 7.6% over 2 years. There was also a 2.1% increase in the amount of untaxed beverages purchased.⁴² The policy has had most impact in lower socio-economic groups.

Australian and international experience of tobacco tax policy has proved the potential utility of price change to in shaping purchasing behaviour and public health. These taxes have generated significant public revenue which has, in some cases, been used to fund comprehensive tobacco control programs to reinforce reductions in tobacco consumption.⁴³

Sugary drinks are a readily definable category of grocery, making the imposition and administration of a health levy relatively straightforward. A health levy on

sugary drinks could be achieved by amendment to Australia's existing tax framework, making it relatively inexpensive to administer.⁴⁴ Industry opponents of a health levy have argued that the tax is regressive in so far as it will disproportionately impact people on lower incomes.⁴⁵ However, Australians of low SEP are disproportionately affected by high rates of diet-related illnesses.⁴⁶ These groups are therefore likely to experience greater dietary improvements.⁴⁷ Inequitable aspects would be further ameliorated if revenue from a health levy was used to support healthy eating initiatives and subsidies on healthy foods for low-SEP households.⁴⁸

Although the Federal Government has not indicated intention to consider tax reform, there is strong public support for such a measure, with 69% of grocery buyers surveyed reporting they were in favour of a tax on soft drinks to reduce the cost of healthy food, with parents more supportive than non-parents.⁴⁹

For more information see OPC Policy Brief [The case for an Australian health levy on sugary drinks](#).

b. Controls on marketing to children

Australian children are exposed to large volumes of marketing for unhealthy food and beverage products from the earliest stages of their development. It is well-established that this marketing influences the types of food and beverages children prefer, demand and consume, and is likely to contribute to poor diets, negative health outcomes, weight gain and obesity in children.⁵⁰

This evidence underpins the WHO's recommendation that member states take active steps to reduce children's exposure to advertising for unhealthy products, as a risk factor for obesity.⁵¹

The impact of advertising is reflected in the enormous advertising budgets of beverage companies, with brands like Coca Cola, PepsiCo and Schweppes spending tens of millions of dollars a year in Australia alone, employing increasingly sophisticated campaigns and technologies. Devices such as advergames, social media content and influencers, mobile applications, viral marketing, websites and online activities engaging young people for greater periods of time than traditional TV advertising ever has. Australian online advertising campaigns from Coke,⁵² Fanta⁵³ and Cottee's⁵⁴ give some insight into the determination of these companies to target young people through games, apps and characters, including by seeking that they 'share' or 'send to a friend' the promotional material. Cookies are also used to track children's activities online.

Television advertising to children also remains a large contributor to children's overall exposure to beverage marketing, yet remains largely unregulated, governed mainly by self-regulatory codes, which are ineffective tools for reducing children's exposure.⁵⁵ Industry commitments do not adequately protect children from exposure to marketing of unhealthy products.⁵⁶ Improved regulation that is independent, expedient, responsive, covers children's peak viewing times and is capable of imposing meaningful sanctions is necessary to reduce harms from exposure to marketing of sugary drinks.

Mechanisms for reform may include engagement by the Australian Communications and Media Authority with broadcasters to reform broadcasting codes under the Broadcasting Services Act 1992 (Cth). Government reluctance to take simple steps to improve TV advertising controls is frustrating as research suggests that removing television advertising of energy dense, nutrient poor products like sugary drinks during children's peak viewing times would be one of the most cost-effective population-based policy measures for influencing health.⁵⁷

c. Effective social marketing

Australian media coverage of sugary drinks frequently promotes positive messages about the health benefits of sugary drinks, which may contribute to consumer confusion about the health impacts of these drinks.⁵⁸ The potentially serious health consequences of sugary drink consumption may not be well understood in the community, meaning that public education will be an essential part of any policy program to reduce consumption.

Social marketing is a long-recognised tool in the dissemination of health messages and influence behaviour change. In 2009, in its recommendations to tackle obesity, the Australian Preventative Health Taskforce recommended that population-level measures should be complemented by initiatives to encourage individuals to adopt healthy lifestyles, including through social marketing campaigns.⁵⁹ Interventions to motivate behavioural changes may have important obesity prevention effects, especially in children, if applied to a whole community.⁶⁰ The importance of raising awareness across age groups, families and communities is highlighted by studies showing that local and family environments have a significant influence on young peoples' consumption of sugary drinks.⁶¹

Disappointingly, in 2013 funding for social marketing in obesity prevention was cut from the budget of the now abolished Australian National Preventative Health

Agency. Further commitments from Federal and State Governments to provide education through social marketing around such products as sugary drinks will be necessary to complement and consolidate other efforts to shape behaviours.

d. Reducing availability in schools and children's settings

School settings have an important influence on children's diets, and availability of sugary drinks in schools can shape overall rates of consumption. It is therefore important that school environments as well as other children's settings be free from promotion of, and access, to sugary drinks.⁶²

The Commonwealth Government's 2010 *Guidelines for healthy food and drinks supplied in school canteens*,⁶³ developed as part of the National Healthy School Canteens project, aimed to provide nationally consistent guidelines, building on state and territory based school canteen initiatives.⁶⁴ Under the guidelines, sugary drinks are not recommended for sale in school canteens. Several states have adopted policies prohibiting the sale of types of sugary drinks in schools, including through vending machines, however lack of compliance and incomplete implementation have detracted from the positive effects of these initiatives.⁶⁵ For example, although the Victorian Government has had a policy whereby schools should be free from drinks high in sugar since 2007,⁶⁶ evaluation in 2010 found that beverages continued to appear on many school menus.⁶⁷

In addition to restricting sugary drink promotion and sales, schools should ensure healthy options are accessible, including through ready access to free water throughout the school day. Water consumption should be encouraged and water fountains and cold-water dispensers must be accessible and in good repair.^{68 69} These measures should also be applied to workplaces, sports and recreation centres and other settings.

Importantly, school-based efforts to reduce consumption may be undermined by other factors, including the promotion and ready availability of sugary drinks outside of school grounds,⁷⁰ highlighting the importance of a coordinated, consistent approach. An Australia-wide school-based initiative to keep sugary drinks out of school settings including tuckshops, school events, activities such as celebrations and sports days, vending machines and foods used in the class, is one important aspect of such a coordinated approach.

e. Reducing availability in workplaces, healthcare settings and public institutions

By developing purchasing and procurement policies that prioritise health, governments and individual institutions can provide healthier environments and beverage options to employees and visitors.⁷¹

Some states initiatives have adopted healthy vending guidelines. In Victoria, these guidelines have been designed for use in workplaces, hospitals, universities and parks. The guidelines suggest that no more than 20% of products like sugary drinks are available in vending machines and that healthier options such as in water (plain, soda or mineral) and reduced fat plain milk (or milk substitute) should be most prominent, at eye level or in the highest-selling position.⁷²

Guidelines such as these are just a first step. There is excellent scope for the Australian Government to lead the initiative by committing to phase out sugary drinks in retail outlets and vending machines in public institutions. Once implemented in public institutions, the established frameworks could be adopted by other employers, including state/territories, with consideration given to incentives or a national scheme to recognize the efforts of workplaces.

In developing a comprehensive initiative, the Government could draw on the work of numerous other jurisdictions who have implemented a ban on sugary drinks in government institutions. The Boston Public Health Commission's *Healthy Beverage Toolkit* is one such initiative, intended to help municipal agencies, healthcare institutions, colleges and universities, community-based organisations and retailers to implement practices that encourage healthy lifestyles.

A toolkit for public institutions and workplaces would involve a variety of elements, effectively comprising a pilot of all the interventions discussed above, in a confined setting. Specifically, it may involve:⁷³

- 1 Improving access to healthy drinks, tap water and chilled water.
- 2 Restricting the availability of unhealthy drinks, including through a phased approach of renegotiating retail and vending machine contracts to exclude sugary drinks.
- 3 Information (labelling or signage) at point of decision-making regarding health effects of sugary drinks.
- 4 Price strategies to discourage consumption of unhealthy drinks (e.g. applying surcharge to unhealthy drinks to fund discounts on bottled water).
- 5 Promotion of educational materials and support services to promote behaviours to improve diets and health.

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About the Obesity Policy Coalition

The Obesity Policy Coalition (OPC) is a coalition between the Cancer Council Victoria, Diabetes Victoria, VicHealth and the WHO Collaborating Centre on Obesity Prevention at Deakin University. The OPC is concerned about rates of overweight and obesity in Australia, particularly in children.

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References

- ¹ Australian Bureau of Statistics, Australian Health Survey: First Results, 2014-2015
- ² World Health Organization Obesity: preventing and managing the global epidemic, Report of a WHO consultation. Technical Report Series 894. Geneva, 2000; The InterAct Consortium
- ³ Consumption of sweet beverages and type 2 diabetes incidence in European adults: results from EPIC-InterAct. *Diabetologia* PMID, 2013
- ⁴ WHO Diet, Nutrition and the Prevention of Chronic Diseases. WHO Technical Report Series 916. Geneva 2003, page 68. <http://www.who.int/dietphysicalactivity/publications/trs916/download/en/>
- ⁵ The World Cancer Research Fund (WCRF) and American Institute for Cancer Research. Food Nutrition, Physical Activity and the Prevention of Cancer: a Global Perspective. Washington DC, AICR2007. http://www.dietandcancerreport.org/cancer_prevention_recommendations/recommendation_food_drink.php
- ⁶ Hattersley L and Hector D (2008) "Building solutions for preventing childhood obesity. Module 1: Interventions to promote consumption of water and reduce consumption of sugary drinks", available at http://www.coo.health.usyd.edu.au/pdf/2008_module1.pdf.
- ⁷ Malik et al (2006) 'Intake of sugar-sweetened beverages and weight gain: a systematic review' *American Journal of Clinical Nutrition* 274; Vartanian et al (2007) 'Effects of soft drink consumption on nutrition and health: a systematic review and meta-analysis' 97 *American Journal of Public Health* 667.
- ⁸ Vartanian et al, 2007, above n vii
- ⁹ Taylor R et al *Do sugary drinks contribute to obesity in Children? A report prepared by the Scientific Committee of the Agencies for Nutrition Action* May 2005
- ¹⁰ DeBoer N et al (2013) 'Sugar-Sweetened Beverages and Weight Gain in 2-5 Year Old Children' 132(3) *Paediatrics* 412
- ¹¹ The WCRF, 2007, above n v
- ¹² NHMRC. Australian Dietary Guidelines (Incorporating the Australian Guide to Healthy Eating) 2013
- ¹³ Wang YC et al (2009) 'Impact of change in sweetened caloric beverage consumption on energy intake among children and adolescents' 163(4) *Archives of Pediatric Adolescent Medicine* 336-343.
- ¹⁴ Vartanian et al, 2007 above n vii; Wang YC et al (2009) above n xiii
- ¹⁵ Swithers S (2013) 'Artificial sweeteners produce the counterintuitive effect of inducing metabolic derangements' *Trends in Endocrinology and Metabolism* 1-11
- ¹⁶ Brownell et al (2009) 'The public health and economic benefits of taxing sugar-sweetened beverages' 361(16) *New England Journal of Medicine* 1599; Vartanian et al, 2007, above n vi
- ¹⁷ Vartanian et al, 2007, above n vii
- ¹⁸ DeBoer N et al (2013) 'Sugar-Sweetened Beverages and Weight Gain in 2-5 Year Old Children' 132(3) *Paediatrics* 412
- ¹⁹ The WCRF, 2007, above n v
- ²⁰ World Health Organization (2015) *Guideline: Sugar Intake for Adults and Children*, Geneva, WHO.
- ²¹ Australian Dietary Guidelines (2013), above niii
- ²² Hu F (2013) 'Resolved: there is sufficient scientific evidence that decreasing sugar-sweetened beverage consumption will reduce the prevalence of obesity and obesity-related diseases' 14 *Obesity Reviews* 606-619
- ²³ NHMRC. Australian Dietary Guidelines (Incorporating the Australian Guide to Healthy Eating) 2013
- ²⁴ NHMRC. Australian Dietary Guidelines (Incorporating the Australian Guide to Healthy Eating) 2013
- ²⁵ Wang YC et al (2009) 'Impact of change in sweetened caloric beverage consumption on energy intake among children and adolescents' 163(4) *Archives of Pediatric Adolescent Medicine* 336-343.
- ²⁶ Barclay and Brand-Miller (2011) 'The Australian paradox: a substantial decline in sugars intake over the same timeframe that overweight and obesity have increased' 3(4) *Nutrients* 491-504
- ²⁷ Rikkers et al (2013) 'Trends in sugar supply and consumption in Australia: is there an Australian Paradox?' 13 *BMC Public Health* 668
- ²⁸ Hector, D, Rangan, A, Louie, J, Flood, V & Gill, T 2009, *Soft drinks, weight status and health: a review*, NSW Centre for Public Health Nutrition, Sydney, citing *Beverage Digest* 2006.
- ²⁹ Rangan et al (2007) 'Changes in 'extra' food intake among Australian children between 1995 and 2007' *Obesity Research & Clinical Practice* e55-363;
- ³⁰ Levy G and Tapsell L (2007) 'Shifts in purchasing patterns of non-alcoholic water-based beverages in Australia, 1997-2006' 64 *Nutrition & Dietetics* 2007 268-279
- ³¹ Retail World 49th Annual Report, *Retail World*, (2015), Parramatta.
- ³² Ibid; Clifton et al (2011) 'Beverage intake and obesity in Australian children' 8:87 *Nutrition Metabolism (Lond)*; see also Department of Health State Government of Victoria, Melbourne. *The Victorian Health Monitor Food and Nutrition Report* 2012
- ³³ Ibid; Clifton PM, Chan L, Moss CL, Miller MD, Cobiac L. Beverage intake and obesity in Australian children. *Nutr Metab (Lond)* 2011; 8:87; see also Department of Health State Government of Victoria, Melbourne. *The Victorian Health Monitor Food and Nutrition Report*. 2012
- ³⁴ Lei L, Rangan A, Flood V and Louie J, "Dietary intake and food sources of added sugar in the Australian population" *British Journal of Nutrition* (2016), 115, 868-877
- ³⁵ Brownell et al (2009) 'above n xv; Chaloupka FJ et al, Wang Y C, Powell LM, Andreyeva T, Chiqui JF, Rinkus L. Estimating the potential impact of sugar-sweetened and other beverage excise taxes in Illinois Cook County Department of Health, ed, 2011; Wang YC et al (2012) 'A penny-per-ounce tax on sugar-sweetened beverages would cut health and cost burdens of diabetes' 31 *Health Affairs* 199-207; Eyles et al (2012) 'Food Pricing Strategies, Population Diets, and Non-Communicable Disease: A Systematic Review of Simulation Studies' 9(12) *Plos Medicine* 1
- ³⁶ Global Action Plan for the Prevention and Control of Non-communicable Diseases 2013-2020
- ³⁷ *Report of the Commission on Ending Childhood Obesity*, World Health Organization, Geneva Switzerland, 2016.
- ³⁸ Australian National Preventative Health Taskforce Report (2009) *The Healthiest Country by 2020 – National Preventative Health Taskforce Strategy – The Roadmap for Action*
- ³⁹ Ibid
- ⁴⁰ *Report of the Commission on Ending Childhood Obesity*, World Health Organization, Geneva Switzerland, 2016.
- ⁴¹ Veerman JL, Sacks G, Antonopoulos N, Martin J, "The impact of a tax on sugar-sweetened beverages on health and health care costs; a modelling study", (2016) *PloS One*, 11(4).; Sturm R et al (2010) 'Soda taxes, soft drink consumption, and children's body mass index' 29(5) *Health Aff (Millwood)* 1052-1058; Andreyeva T et al (2011) 'Estimating the potential of taxes on sugar-sweetened beverages to reduce consumption and generate revenue' 52(6) *Preventative Medicine* 413-416; Briggs ADM et al (2013) 'Overall and income specific effect on prevalence of overweight and obesity of 20% sugar sweetened drink tax in UK: econometric and comparative risk assessment modelling study' 347 *British Medical Journal*
- ⁴² Colchero A, Popkin B, Rivera JA, Ng SW, "In Mexico, evidence of sustained consumer response two years after implementing a sugar-sweetened beverage tax", *Health Affairs*, 2017, <http://m.content.healthaffairs.org/content/early/2017/02/16/hlthaff.2016.1231>.
- ⁴³ Chaloupka et al (2012) 'Tobacco taxes as a tobacco control strategy' 21 *Tobacco Control* 172-180; see discussion by Andreyeva T, Chaloupka FJ, Brownell KD. Estimating the potential of taxes on sugar-sweetened beverages to reduce consumption and generate revenue. *Prev Med* 2011; 52(6): 413-416
- ⁴⁴ Thow A and Kaplin L (2013) 'Using economic policy to tackle chronic disease: Options for the Australian Government' 20 *Journal of Law and Medicine* 604 at 608-609
- ⁴⁵ Kate Carnell, then CEO of the AFGC, responding on behalf of AFGC to a proposed SSB tax, 2011, <http://www.youtube.com/watch?v=AXAVm8977IE>
- ⁴⁶ Stewart RAH et al (2008) 'Differences in cardiovascular mortality between Australia and New Zealand according to socioeconomic status: findings from the Long-Term Intervention with Pravastatin in Ischaemic Disease (LIPID) Study' 121(1269) *New Zealand Medical*

- Journal 11-23; Coffee NT et al (2013) 'Relative residential property value as a socio-economic status indicator for health research' 12(22) *International Journal of Health Geographics*
- ⁴⁷ Mytton et al (2012) 'Taxing Unhealthy Food and Drinks to improve health' 344 *British Medical Journal*
- ⁴⁸ As discussed by Powell LM, Chaloupka FJ. (2009) 'Food prices and obesity: evidence and policy implications for taxes and subsidies' 87(1) *Milbank Quarterly* 229-257.
- ⁴⁹ Morley B et al (2012) 'Public Opinion on Food-related Obesity Prevention Policy Initiatives' 23(2) *Health Promotion Journal of Australia*
- ⁵⁰ Boyland EJ and Halford JCG (2013) 'Television advertising and branding: Effects of eating behaviour and food preferences in children' 62 *Appetite* 236; Cairns et al *The extent, nature and effects of food promotion to children: a review of the evidence to December 2008* Prepared for the World Health Organization, December 2009
- ⁵¹ World Health Organization, 2010 *Set of recommendations on the marketing of food and non-alcoholic beverages to children* available at http://whqlibdoc.who.int/publications/2010/9789241500210_eng.pdf
- ⁵² <https://apps.facebook.com/ahh-giver>
- ⁵³ www.facebook.com/FantaAustralia
- ⁵⁴ <http://www.cottees.com.au/>
- ⁵⁵ Mills C, Martin J, Antonopoulos N, *End the Charade! The ongoing failure to protect children from unhealthy food marketing*. Obesity Policy Coalition, Melbourne, 2015, available at <http://www.opc.org.au/paper.aspx?ID=endthecharade&Type=submissions#.Vyqii7fVyUk>
- ⁵⁶ Hebden L et al (2010) 'Regulating the types of foods and beverages marketed to Australian children: How useful are food industry commitments?' 67 *Nutrition and Dietetics* 258-266
- ⁵⁷ Magnus et al (2009) 'The cost-effectiveness of removing television advertising of high-fat and/or high-sugar food and beverages to Australian children' 33 *International Journal of Obesity* 1094-1102
- ⁵⁸ Bonfiglioli C (2011) 'Australian print news media coverage of sweet, non-alcoholic drinks sends mixed health messages' 35(4) *Australian and New Zealand Journal of Public Health* 325
- ⁵⁹ Australian Government – Preventative Health Taskforce, 2009, above n xxxiii
- ⁶⁰ Swinburn et al (2011) 'The global obesity pandemic: shaped by global drivers and local environments' 378(9793) *The Lancet* at 804
- ⁶¹ Grimm GC et al (2004) 'Factors associated with soft drink consumption in school-aged children' 104(8) *Journal of the American Dietetic Association* 1244-1249; see also Johnson BA et al (2012) 'Multilevel analysis of the Be Active Eat Well intervention: environmental and behavioral influences on reductions in child obesity risk' 36 *International Journal of Obesity* 901-907
- ⁶² Bere et al (2008) 'Determinants of adolescents' soft drink consumption' 11(1) *Public Health Nutrition* 49
- ⁶³ Available at <http://www.health.gov.au/internet/main/publishing.nsf/content/phd-nutrition-canteens>
- ⁶⁴ Thow A and Kaplin L (2013) 'Using economic policy to tackle chronic disease: Options for the Australian Government' 20 *Journal of Law and Medicine* 604 at 608-609
- ⁶⁵ De Silva-Sanigorski A et al (2011) 'Government food service policies and guidelines do not create healthy school canteens' 35(2) *Australian and New Zealand Journal of Public Health* 117-121
- ⁶⁶ VIC Department of Education and Early Childhood Development. 'Go for Your Life' *Healthy Canteen Kit – Food Planner*. Melbourne (AUST): State Government of Victoria; 2006.
- ⁶⁷ Ibid
- ⁶⁸ As discussed in ChangeLab Solutions *Sugar-Sweetened Beverages Playbook 2013*, available at <http://changelabsolutions.org/publications/ssb-playbook>
- ⁶⁹ Hattersley and Hector (2008) above n vi
- ⁷⁰ Ibid
- ⁷¹ ChangeLab 2013, above n lxvi
- ⁷² Healthy Choices, <http://heas.health.vic.gov.au/healthy-choices/guidelines>
- ⁷³ These measures appear largely as set out in the Boston Public Health Commission Healthy Beverage Toolkit, available at <http://www.bphc.org/programs/cib/chronicdisease/healthybeverages/Pages/Home.aspx>