

Re:think tax discussion paper Submission from Cancer Council Australia

Cancer Council is Australia's peak national non-government cancer control organisation. Its members are the eight state and territory Cancer Councils, which work together to undertake and fund cancer research, prevent and control cancer and provide information and support for people affected by cancer.

Cancer Council Australia's goal is to lead the development and promotion of national cancer control policy in Australia, in order to prevent cancer and reduce the illness, disability and death caused by cancer.

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Overview

Cancer Council Australia welcomes the opportunity to contribute to the Australian Government's review of Australia's taxation system.

As highlighted in this submission, price controls applied to tobacco through the tax system have been among the most effective public policy interventions for improving Australia's population health and wellbeing. Ongoing adjustments to, and improved targeting of, tobacco taxes will be essential to continuing these health benefits. Recommendations for action, and the evidence to support them, follow.

The submission also highlights the enormous but under-utilised potential benefits of structural changes in the taxation of alcohol (the consumption of which is also an important cancer risk factor).

Given the extensive economic and social burden of diet-related illness (including cancer) and associated risk factors, there is also a compelling case to investigate the benefits of applying tax reforms to the sale of food and non-alcoholic beverages, as outlined.

Indirect taxes are an important source of government revenue. So as well as the demonstrated and potential benefits of tax reform for achieving health outcomes, indirect taxes provide an important revenue stream for funding health services. As Australia's ageing population grows, so too will its healthcare bill – and the need for responsive, better-targeted tax arrangements as recommended.

This submission comprises separate sections focusing on tobacco, alcohol and food, recognising that although a number of broad principles apply to tax reform in relation to all three, the policy context, evidence and the taxation mechanisms vary between them.

Cancer Council Australia looks forward to further opportunities to discuss our evidence-based tax reform recommendations.

1. Tobacco tax, Australia's health and the economy

Overview

Although smoking prevalence in Australia has declined significantly in recent years, tobacco smoking continues to cause more cancer deaths than any other modifiable risk factor. Ground-breaking new research published in 2015 showed that tobacco smoking will cause premature death in two-thirds of Australia's long-term smokers – an estimated 1.8 million premature Australians deaths among the nation's 2.7 million smokers, unless established smokers quit and people at risk of taking up smoking are deterred.¹

Evidence shows that tobacco taxation is consistently one of the most effective public policy interventions for reducing tobacco consumption by encouraging smokers to quit and deterring non-smokers from taking up the habit. (While a multifaceted, comprehensive approach to tobacco control is the best overall policy response, tobacco taxation has been the most effective individual intervention evaluated over the long-term.) Tobacco taxation is particularly effective in reducing smoking prevalence among young people and people on low incomes.²

Guidelines for article 6 of the WHO Framework Convention Tobacco Control recommend that the "Parties should establish coherent long-term policies on their tobacco taxation structure and monitor on a regular basis including targets for their tax rates, in order to achieve their public health and fiscal objectives within a certain period of time. Tax rates should be monitored, increased or adjusted on a regular basis, potentially annually, taking into account inflation and income growth developments in order to reduce consumption of tobacco products".³

With excise/customs duty on tobacco products ranging between 55% and 65% of final price, Australia lags behind international best practice in tobacco taxation.⁴

A 25% increase in excise in 2010-11 and four subsequent annual 12.5% increases, commencing in 2013 and locked into budget forward estimates until 2016,⁵ have improved Australia's position with prices of premium and mid-priced products having risen substantially over that time.

However, all three major global tobacco companies have introduced several new low-priced brands in small pack sizes over recent years. This trend has the potential to erode the public health effectiveness of tax increases in discouraging smoking and will require a public policy response.

Recommendations

Cancer Council recommends that the Australian Government:

- Continue to increase tobacco taxation levels after 2016 with the level of increase determined so that the 'weighted average retail price' of cigarettes continues to increase and the 70% target is met within four years;
- Amend appropriate legislation to require all tobacco manufacturers and importers to report on average retail prices and sales of each product they produce/import so that the 'warp' can be calculated, (a necessary step if the FCTC guidelines are to be implemented in line with this provision);

- Shift to an annual indexation of tobacco product pricing, to maximise the health benefits of price increases;
- Allocate a component of additional revenues gained to complementary tobacco control strategies, such as mass media campaigns and support for Quit lines, and/or other evidence-based smoking cessation initiatives, particularly those which target socially disadvantaged populations etc.;
- Consider introducing the first two annual indexation increases at the same time as the next two 12.5% excise increases, to maximise quitting and deterrence benefit; and
- Abolish duty-free tobacco sales at airports, which deprive the federal budget of an appropriate revenue source in tobacco duty and enable smokers to bulk-purchase products that cause death in two-thirds of long-term users.

The case for ongoing increases

Tobacco taxation, including federal excise, customs duty and state franchise fees, has been a central and effective tobacco control strategy in Australia.⁶ In Australia, excise, customs duty and GST make up around 60% of the final price of leading brands of cigarettes. The Australian Government has regularly indexed tobacco excise by the Consumer Price Index. However, from 2014 onwards, tobacco excise is to be indexed on the basis of changes in Average Weekly Earnings.⁷ In April 2010, a 25% tax increase on tobacco products was introduced. In 2013, the Government announced it would introduce staged 12.5% increases in tobacco excise over four years from 2013-2016, in addition to the increases that will occur under indexation arrangements. The first two 12.5% increases commenced on 1 December 2013 and 1 September 2014, and the remaining 12.5% increases will occur on 1 September 2015 and 1 September 2016, respectively.⁸

Analysis by Federal Treasury found that the 2010 tobacco tax increase in Australia exceeded the set objective of a 6% decrease in tobacco consumption, with a decline of 11% two years after implementation. There was insufficient data to determine whether the increase met the objective of decreasing the number of smokers by 2-3%. The analysis concluded that the excise increase supported other policy, price and taxation measures aimed at reducing the harms of tobacco consumption in Australia.⁹

The two main reasons smokers in Australia cited for changing their smoking behaviour in 2010 were because smoking was affecting their health (44.3%) and because it was costing too much money (44.1%). The proportion of people nominating cost as a factor increased significantly from 35.8% in 2007 to 44.1% in 2010 when the tax increase was introduced.¹⁰ The 2010 tax increase saw increased numbers of people attempting to quit, and decreases in the number of cigarettes smoked by regular smokers.^{11,12} The effect was strongest in younger smokers and people in the lowest socioeconomic tier. Directly following the tax increase (May 2010), one study reported 22% of the study sample quit smoking, compared with 12% at the same time in the previous year and 13% in the previous month. The increase in the number of people quitting was evident for a short time, however it was not sustained further than three months following the tax increase. This shows the importance of continuous, substantial increases in tobacco tax to reduce smoking prevalence.¹³

While there are concerns about the regressive nature of tobacco taxation and its impact on low-income smokers, evidence shows that tobacco tax increases lead to the largest declines in smoking among the lowest income persons.¹⁴ At a population level, the cost burden falls more heavily on higher income consumers whose smoking behaviour changes little in response to tax increases.¹⁵

Allocating a proportion of tobacco tax revenues to targeted programs to assist people to quit would also help to relieve the cost burden on low-income smokers, as well as reducing the disproportionate tobacco-disease burden currently imposed on socially disadvantaged populations.

Recommendations

Cancer Council recommends that the Australian Government continues to increase tobacco taxation levels after 2016 to a position where Australia is a world leader – as it is in a number of other areas of tobacco control policy. Increases should be substantial enough to maximise public health benefit. Revenues should be allocated to complementary tobacco control strategies, such as mass media campaigns and support for Quit lines etc. and/or other evidence-based smoking cessation initiatives, particularly those which target socially disadvantaged populations.

Indexation

While increases in the price of tobacco products are a highly effective way of encouraging smokers to quit, smokers are less likely to notice, and quit in response to, small and frequent price increases.¹⁶

Substantial increases in excise/customs duty in April 2010 (25%), December 2013 (12.5%) and September 2014 (12.5%) (and further 12.5% increases scheduled for September 2015 and 2016) substantially increased the total taxes payable on a pack of cigarettes in Australia—from \$6.56 in March 2010 to \$11.75 in May 2015 for the average pack of 25s.¹⁷

Substantial falls in consumption followed increases in duty in April 2010¹⁸ and December 2013.¹⁹ However, compilations of annual total revenue from excise/customs duty^[6] and trends in smoking prevalence²⁰ provide little evidence of declines in smoking following the much smaller increases in prices associated with six-monthly indexation imposed each year in February and August between 2001 and early 2010. Indexation based on changes in average weekly earnings rather than the consumer price index was put into effect in March 2014.²¹ This may result in some years in slightly larger increases in duty each six months, however wages growth will vary from year to year and is unlikely to result in extremely large increases.

Recommendations

The Australian Government should consider shifting to an annual indexation of tobacco product pricing, to maximise the health benefits of price increases; and consider introducing the first two annual indexation increases at the same time as the next two 12.5% excise increases, to maximise quitting and deterrence benefit.

Answers to consultation questions

Q11.1: Is it appropriate to use taxes on specific goods or services to influence individual consumption choices, and if so, what principles can be applied in designing the structure and rates of such taxes?

Yes. As outlined in this submission, tobacco taxation is one of the most effective public policy interventions for preventing death and disease, by reducing tobacco consumption levels.²²

The current framework would, in the view of Cancer Council Australia, be more effective if tobacco excise increases were to continue and if indexation was increased annually and/or in synch with excise increases.

Q11.3: What is the appropriate specific goal of taxing tobacco? Is it necessary to change the structure or rate of tobacco taxes?

The goal of tobacco tax is to reduce exposure to Australia's most prevalent carcinogen, by using price control to encourage smokers to quit and deterring non-smokers from taking up the habit. The case for continuing to increase the rate of taxation is well-documented; there is also a case for increasing the indexation rate annually and/or in synch with excise increases.

Many smokers spend a high proportion of their average weekly earnings on tobacco products.²³ Moving to annual indexation would not change this among people who continue to smoke. It would, however, be likely to prompt more people to quit, thereby minimising the risks of regressive effects of indexation policy which might, otherwise, gradually increase amounts spent on tobacco by low-income smokers (whose wages may grow at rates less than average) without encouraging as many attempts to quit.²⁴

Q11.4: If health and other social costs represent the principal rationale for specific taxes on alcohol and tobacco, is any purpose served in retaining duty free concessions for passenger importation of these items?

No, there is no purpose served in retaining duty free concessions for tobacco products. (Alcohol is dealt with in the separate section of this submission.) Duty free tobacco simply deprive federal budgets of a legitimate revenue source for no logical reason and enables consumers to bulk-purchase addictive products that lead to premature death in two-thirds of users.

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- ⁴ The WHO Technical handbook on tax administration (Geneva WHO 2010) states that tobacco excise taxes should make up at least 70% of final price.
- ⁵ Department of Treasury, 2014-15 Portfolio Budget Statements, May 2014.
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- ⁷ Ibid.
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- ¹⁰ Australian Institute of Health and Welfare. [*2010 National drug strategy household survey report.*](#) Canberra: AIHW; 2011 Jul. Report No.: Drug statistics series no. 25. Cat. no. PHE 145.
- ¹¹ Hayes L. [*Smokers' responses to the 2010 increase to tobacco excise: Findings from the 2009 and 2010 Victorian Smoking and Health Surveys. CBRC Topline Research Report.*](#) Melbourne: Centre for Behavioural Research in Cancer, The Cancer Council Victoria; 2011

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¹³ Ibid.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ House of Representatives. Explanatory memorandum: Excise Tariff (Tobacco) Amendment Bill and Customs Tariff (Tobacco) Amendment Bill. Canberra: The Parliament of the Commonwealth of Australia, 2013.

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²¹ *Excise Tariff Amendment (Tobacco) Act 2014*. 2014.

²² Ibid.

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²⁴ Ibid.

2. Tax reform, alcohol and health: the case for a volumetric alcohol tax system

Introduction

Alcohol is a risk factor for cancer of the mouth, pharynx, larynx, oesophagus, bowel and breast and has been classified as a Group 1 carcinogen -the highest rating for cancer risk factors (1, 2). Alcohol is an important cause of illness, injury and death, whether resulting from short-term episodes of intoxication or from long-term, chronic use. Cancer Council recommends that people limit their consumption of alcohol to reduce their risk of cancer.

Cancer Council supports evidence-based action to reshape Australian social attitudes towards drinking, and to reduce the burden of morbidity and mortality caused by alcohol use. Alcohol is not an ordinary commodity and therefore regulation that addresses the affordability and accessibility of alcohol are warranted, particularly when price has an impact on the quantities and types of products consumed.

Changing alcohol consumption will require a shift in Australia's cultural beliefs around alcohol and drinking. People must be supported to make healthier drinking choices, and positively influencing the drinking culture can reduce alcohol consumption in the long term, and hence improve people's future health. A comprehensive approach to alcohol policy, including a review of taxation of alcohol products, is required to reduce the burden of both short- and long-term harms caused by alcohol consumption, including the risk of cancer.

Price, consumption and harm

Evidence shows that increasing the price of alcohol through tax effectively reduces consumption and alcohol-related health harm (3). When alcohol prices increase, alcohol-related harms decrease. For example, a price increase of 10% has been shown to reduce consumption by an average of 5% (4). The ACE Prevention Report, which assessed the cost effectiveness of policy actions for the prevention of non-communicable disease in Australia, found good evidence to recommend a tax increase on alcohol (5). This report recommended volumetric taxation of alcohol (i.e. a tax levied on the alcohol content per volume of the product) at a level 10% above the current excise rate on spirits.

Alcohol tax as an alcohol-harm reduction tool is highly cost-effective. An Australian study found that appropriate alcohol taxation measures could reduce the social costs of alcohol up to 39% (6). An evaluation of a range of alcohol harm-reduction policies found that a volumetric tax based on alcohol content had the lowest intervention costs and provided the greatest reduction in harms measured in disability-adjusted life years (DALYs) (7).

Using taxation to influence the price of alcohol can be effective in bringing about sustained shifts in consumption toward products with lower average alcohol by volume; additionally, alcohol taxes can fund prevention and treatment programs, and so further contribute to the reduction of alcohol-related harm.

Alcohol taxes in Australia

In Australia, there are currently four categories of taxes applied to alcohol:

- Goods and Services Tax (GST) - a 10% *ad valorem* (i.e. according to the value of the goods) tax on all retail sales of alcohol;

- Customs duties – a combination of both volumetric and *ad valorem* tax imposed on imported products only;
- Excise duties - a volumetric tax based on alcohol content per volume of product; calculated by reference to the Consumer Price Index and levied twice a year; and
- Wine Equalisation Tax (WET) - an *ad valorem* tax that applies to wine based on the value of the goods at the last wholesale sale.

Table 1. Summary of alcohol taxes applied by category of alcohol product ⁽⁸⁾

| Tax | Beer | Spirits and RTDs | Wine | Cider |
|---------------------------|----------------|------------------|----------------|-------|
| GST | Yes | Yes | Yes | Yes |
| Excise duty | Yes | Yes | No | No |
| WET | No | No | Yes | Yes |
| Customs duty (ad valorem) | No | Yes (imported) | Yes (imported) | No |
| Customs duty (per unit) | Yes (imported) | Yes (imported) | No | No |

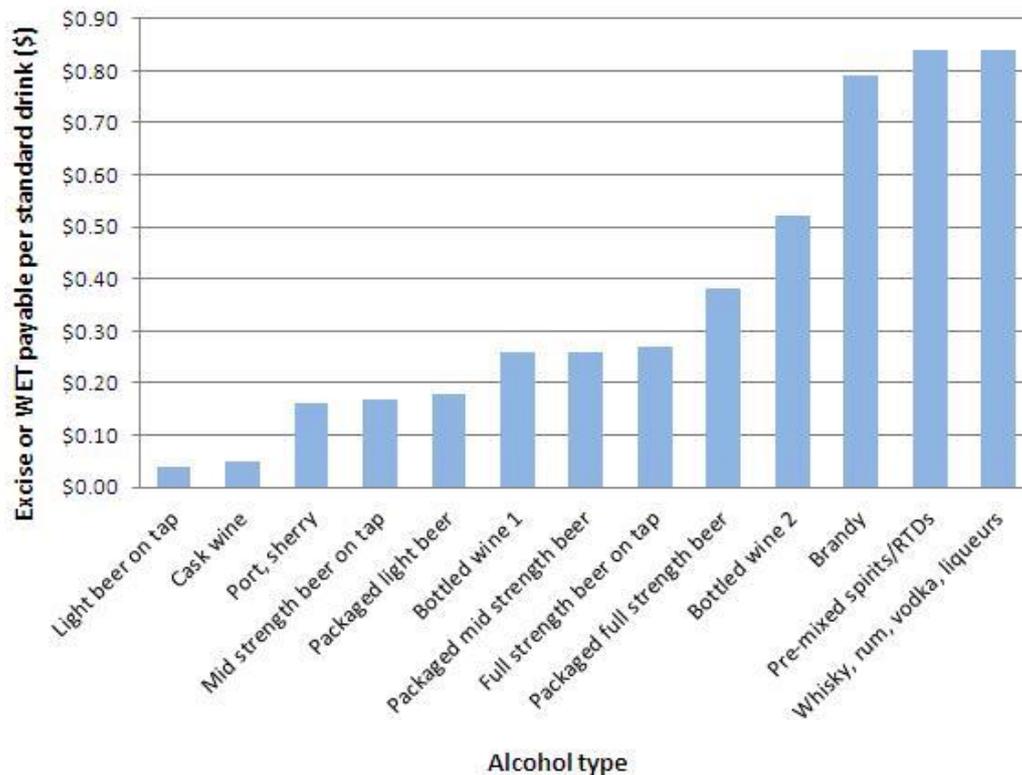
RTDs - Ready-to-drink

Beer, spirits and pre-mixed beverages are subject to excises or customs duties, and GST. The first 1.15% of alcohol in beer is tax-free. Spirits attract a higher rate of tax, according to their alcohol content, which can be up to 40% alcohol content per volume.

Wine is subject to the WET and GST. The WET rate is 29% and is a value-based tax, calculated according to wholesale sales and untaxed retail sales.

Figure 1 shows the different amounts of tax payable per standard drink for different types of alcoholic beverages.

Figure 1. Tax payable per standard drink of alcohol, various products, Australia, June 2008⁽⁹⁾



Note: The Australian standard drink contains 10g of alcohol (equivalent to 12.5 ml of pure alcohol); ABV = alcohol by volume; WET payable per standard drink of wine is based on a four litre cask of wine selling for \$13 (incl. GST), a 750 mL bottle of wine selling for \$15 (incl. GST) - 'Bottled Wine 1', a 750 mL bottle of wine selling for \$30 (incl. GST) - 'Bottled Wine 2', and a 750 mL bottle of port selling for \$13 (incl. GST).

The current taxation system for alcohol is not consistent, which adversely influences alcohol consumption and related harm. Although from a public health perspective, some tax disparities are desirable – for example, reduced tax on low-strength beer acts as an incentive for its production and consumption. Other disparities are problematic, especially where they encourage the production and consumption of higher strength products and make them cheaper than mid-strength products. For example, the tax on cask wine is significantly less than the tax on mid-strength beer, despite cask wine having higher alcohol content (this is because the amount of WET is calculated irrespective of the alcohol content of wine)(9).

Harmful drinking is associated with cheap rather than expensive products; the current tax system compounds this effect by ensuring cheap products are also high-alcohol products.

Volumetric tax

Studies have shown that a volumetric alcohol taxation system - where tax is levied on the alcohol content of a product by volume – has the potential to reduce alcohol consumption and related harm, provided it translates to an overall increase in alcohol tax as well as consistency in how alcohol tax is levied (10).

Taxing alcoholic beverages according to alcohol content is highly cost-effective; one study estimated that a volumetric tax on all alcohol products set at the existing rate for spirits could reduce overall alcohol consumption by 24%, resulting in a net health gain of 170,000 DALYs and an increase in revenue of over \$3 billion (10). A recent study found abolishing the WET and replacing it with a volumetric tax on wine would increase taxation revenue by \$1.3 billion per year, reduce alcohol consumption by 1.3%, save \$820 million in health care costs and avert 59,000 DALYs (11). A tiered volumetric approach will lead to even greater taxation receipts and higher falls in alcohol consumption.

A potential issue with this type of taxation is that it may result in some consumers switching to cheaper products because it doesn't prohibit alcohol from being heavily discounted or sold below cost. Regulating the floor price or minimum price of alcohol aims to set a price per unit for alcohol products – for example, per standard drink – and products may not be discounted below this minimum unit price. Increasingly, retail outlets heavily discount alcohol products, often to below-cost prices, to attract customers into their stores (12).

A minimum floor price for alcohol per standard drink may assist in reducing the supply of cheaper, more harmful drinking options. The most recent work in this area, a modelling project from the UK in 2010, suggests that minimum pricing would be an effective tool for reducing alcohol-related problems (13). It may also encourage switching from high alcohol products to lower-strength, less harmful options. Establishing a minimum price for alcohol, which raises the cost of products at the cheapest end of the spectrum, is likely to have a substantial impact both on overall consumption levels and on drinkers at most risk of short and long-term harm (12).

Changes to alcohol taxes should not have the effect of decreasing the price of alcohol products, other than low alcohol products. The real price of alcohol should increase steadily over time. The current practice of adjusting alcohol excise taxes every six months by reference to the Consumer Price Index should be maintained.

Community support for alcohol taxation

Since 2004 National Drugs Strategy Household Surveys have asked people their opinion on alcohol pricing and taxation (14). All studies found good support for increases in alcohol price in Australia. Between 2004 and 2013, support for raising the price of alcohol increased, from 20.9% in 2004 to 28.1% in 2013 (14). Importantly, the proportion of respondents who supported increasing alcohol taxes to pay for health, education and treatment (i.e. hypothecation) also increased, from 38.6% in 2004 to 43.8% in 2013 (14).

The formulation of alcohol taxation policy should acknowledge that alcohol is responsible for major harms in our community including cancer. Increasing the price of alcohol through taxation is one of the most effective ways to reduce alcohol consumption and associated harms. Accordingly, Cancer Council Australia recommends:

1. The introduction of volumetric based excise taxes, to be applied to all alcohol products, together with abolition of the Wine Equalisation Tax (WET).
2. In combination with a new volumetric taxation system, the introduction of a minimum retail price per unit of alcohol (floor price).
3. Continuation of the current practice of adjusting the alcohol excise taxes every six months, by reference to the Consumer Price Index.
4. A proportion of alcohol tax revenue is allocated for the purpose of recovering the costs of alcohol-related harm and funding education, harm prevention and alcohol treatment programs – i.e. hypothecation.
5. Continual monitoring and evaluation of the alcohol taxation system, and research into potential improvements.
6. Improved access to wholesale and retail alcohol sales data, an essential indicator of consumption levels and patterns and the impacts of prevention policies and programs.

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3. Tax reform, food and health: issues for consideration

Introduction

Currently 63% of Australian adults are overweight or obese and around one in four Australian children are overweight or obese (1, 2). As obesity is a modifiable risk factor for cancer and other prevalent illnesses, it is important that a range of appropriate policies and strategies to promote healthy eating and reduce overweight and obesity are implemented within the community.

There is strong evidence that overweight and obesity increase the risk of cancers of the bowel, kidney, pancreas, oesophagus, endometrium and breast (in post-menopausal women) (3). Weight gain results from the over-consumption of energy-dense, nutrient-poor foods and lack of physical activity (4, 5). In 2008, the total cost of obesity in Australia was estimated at more than \$58 billion (6).

Price is a well-established driver of what and how much food people buy. Food and beverage taxes have been introduced in a number of countries as part of efforts to improve diets by influencing purchasing behaviour to address rising rates of obesity and reduce obesity-related chronic disease.

International approaches to food taxes

A number of countries, including the US, Hungary, Denmark, France and Finland, have introduced a food tax, with some applied on a food category basis and some applied according to the nutrient content of the foods. In 2011 Hungary implemented a tax on foods with high fat, sugar, and salt content (7). Denmark introduced a tax on saturated fat in 2011, but abolished it in 2012 (8). France introduced a tax on sugar and artificially sweetened beverages in 2012 and Finland introduced a tax on high-sugar products including beverages, ice-cream and confectionery (9, 10). In the Pacific region, Nauru and French

Polynesia introduced taxes to raise revenue for health promotion purposes (11). Nauru has a 'sugar levy' of 30% on imported sugar, confectionery and sugary drinks; while French Polynesia has introduced a production tax and consumption tax on a range of 'unhealthy' foods such as sweetened drinks, confectionery and ice creams (11). Norway has an excise on refined sugar products, and there is public discussion regarding the introduction of a tax on food in a number of other countries, including Taiwan, Sweden, Italy and the UK (12-14).

A number of states in the US currently tax soft drinks and snack foods and, although these taxes are primarily targeted at raising revenue, their effectiveness in reducing obesity has been investigated. A 2010 study by Sturm et al. reports that the small taxes in place currently are unlikely to have measurable effects on soft drink consumption or obesity among children overall (15). Sturm et al also point out that extrapolating their finding of a small marginal effect (-0.013 BMI¹ units) to a larger tax of 18% would produce a 20% reduction in BMI gain, which is a greater effect than any other intervention has demonstrated to date (15). Studies from the same year by Fletcher et al. further suggest that although these soft drink taxes do influence consumption, the behavioural changes are not sizeable enough to lead to significant changes in population weight (16-18). Additionally, two studies indicate that there is little difference in obesity between US states with a soft drink tax and states without a soft drink tax (18,19). Some public health and economic experts consider that in order to produce significant outcomes for weight, the level of the soft drink tax would have to be raised substantially (17).

¹ BMI- is a measure of body fat based on height and weight

In 2013 Hungary conducted a health and financial impact assessment and found sales of products subject to the tax have fallen by 27%, with a 20 -35% decrease in consumption observed (20). An additional benefit reported was the response from food manufacturers who reformulated products to remove or reduce the taxed ingredient. The tax has been shown to influence consumer awareness and attitudes towards healthy and unhealthy foods.

Of those who do consume less of the taxed products, 80% cited the price increase as being a reason, with 20% of them noting that it made them more aware of the health implications of what they were consuming (20).

International evidence suggests that food taxes can influence what people buy and could contribute to improving health by shifting consumption from unhealthier foods and supporting healthier diets.

The Australian context

Australia currently has a range of taxes on tobacco and alcohol recognising the health and social costs imposed by consumption of these products, and in effect also places an impost on some unhealthy and pre-prepared foods through the Goods and Services Tax (GST) while most healthy foods and unprocessed foods are exempt. However, it should be noted that in some cases the amount of GST imposed was lower than some taxes already in place, so for example the wholesale sales tax on sugar sweetened drinks reduced from 20% to a GST of 10%. While there has been considerable analysis of the impacts of alcohol and tobacco taxation (with results showing significant declines in consumption with a real increase in the price of these products), the implications of the GST on influencing food consumption remains largely unexplored except for fruit and vegetables. A recent Australian study found that adding GST to fruits and vegetables could cost about 100,000 healthy life-years over the lifetime of the 2003 Australian adult population, due to an additional 90,000 cases of heart disease, stroke and cancer (21). Cancer Council strongly supports retaining that the GST exemption for basic food, particularly fresh fruit and vegetables.

The two potential objectives of any food tax are:

- (i) changing diet and health behaviour and improving health outcomes; and
- (ii) raising revenue.

A secondary aim may be to encourage meaningful and significant food reformulation to improve the healthiness of the food supply.

Improving health behaviour and outcomes

The evidence is mixed in regards to whether a food tax would be successful at improving health outcomes. In terms of changing consumer behaviour, a number of studies demonstrate that demand for a number of foods is inelastic (resistant to change) and therefore a tax that increases the price of food would not be expected to significantly alter consumption (22-26). However, other experimental studies (27) and consumer attitude surveys (28,29) have shown that consumers are somewhat responsive to changes in the price of healthy and unhealthy foods. For example, soft drinks have been found to be marginally elastic, with an increase in price of 10% having the effect of decreasing consumption by 11.5% (30). The experience with tobacco taxes was that marginal elasticity can influence consumption and improve population health outcomes (31).

In terms of health benefits, several studies indicate there is the potential for a food tax to influence weight outcomes (32-34), however, these effects are generally small. A number of studies found that a food tax would improve obesity-related health outcomes, including

cancer risk (24, 35, 36), while other studies reported few health benefits, and even occasionally, negative health effects such as an increased prevalence of diabetes (37, 38). Though two Australian studies have indicated there would be health benefits from a food tax, these studies use British data on consumer spending (34, 35). Cancer Council believes it would be highly beneficial to conduct further research to clarify the implications of a food tax on both consumer behaviour, rates of overweight and obesity and the potential health impacts.

In terms of the broader effects on society, evidence overwhelmingly points to a food tax being regressive, with the burden of the tax disproportionately falling upon those on lower incomes, due to the fact that this group spend a larger proportion of their income on food (25, 26, 37). However, if a food tax is effective in changing diet behaviour, then low income groups who have a greater burden of diet-related chronic disease may potentially see the greatest health improvements. The potential mechanisms to counteract the regressive nature of a food tax include the use of subsidies on healthy foods such as fruits and vegetables. For example, some studies have examined the combination of food taxes and subsidies and concluded that there is potential benefit from the combination (37, 39). Subsidies could be applied at one or more points throughout the food system to benefit all consumers, or they could be redeemable by low income groups only (e.g. through the use of food vouchers or stamps in retail outlets).

Raising revenue

A number of studies indicate that a food tax imposed on foods which have high levels of consumption has the potential to raise significant revenue (22, 34, 40, 41). In part, the potential success of a food tax in raising revenue would be based on an expectation that consumers will not change their consumption with an increase in price (inelastic demand). However the taxes on tobacco have resulted in a decrease in consumption, but there has not been a decline in revenue to government because tax rates are high enough to ensure that there is an offset between this and any decline in demand. A consideration for policy makers will be the treatment of any revenue raised from a food tax, and whether it should be hypothecated, or considered part of general revenue. In parts of Australia, taxes have previously been introduced that have hypothecated revenue (most notably in the case of tobacco taxation).

Studies indicate that in order to change behaviour, a tax would have to be of substantial size (22, 23, 42), while if the aim is to raise revenue, even a small tax on a single category of product that is commonly consumed (e.g. soft drink) could be effective (40). Determining which foods will be taxed (or subsidised) requires careful consideration balancing of issues such as administrative complexity, with how closely the tax is able to target those foods that contribute most to weight gain and high body mass. The literature predominantly discusses foods being taxed on either a food category basis (such as soft drinks, chips, take away foods) or on a single nutrient (such as saturated fat) or on an overall analysis of nutritional value using nutrient profiling.

The appropriate design of a food tax is paramount to its success. Some studies using modelling have found that a poorly designed tax or subsidy could have unintended consequences and increase certain health risks associated with the consumption of unhealthy foods (24, 37). Importantly, any food tax must be designed with consideration of the Australian consumer, retail environment and food system. It would therefore be useful if further research was undertaken to explore issues such as size, tax and/or subsidy, type of tax and inclusion criteria, and stage of the food system where the tax is applied (e.g. wholesale sales tax, or sales tax).

Conclusion

There is relatively little Australian evidence regarding the impact of a food tax on dietary behaviour and health outcomes. However, what does exist suggests that a food tax could be a cost-effective policy option for reducing obesity, when implemented as part of a comprehensive obesity prevention strategy including social marketing and other policy interventions such as better food labelling and restrictions on marketing of unhealthy foods to children. There is enough evidence internationally to suggest that a food tax could be an important part of an Australian policy response to obesity prevention. The World Health Organization recently released a report summarising the evidence on price policies to promote healthier diets. The report found price policies to be an important tool in tackling unhealthy diets and chronic diseases. Taxes on sugar sweetened beverages and targeted subsidies on fruit and vegetables emerged as the policy options with the greatest potential to induce positive changes in consumption (43).

Designing an effective food tax would require consideration of whether a tax and/or subsidy would be most appropriate; the food group (e.g. sugar sweetened beverages) or nutrients that a tax could potentially be applied to; the elasticity of the food items to be taxed and cross-elasticity of demand; what size the tax and/or subsidy should take in order to achieve the desired outcomes; at what stage of the food system it is applied; and what will be done with the revenue generated.

Cancer Council Australia recommends that the Department of Treasury investigate potential tax options to increase the price of foods and beverages that offer no nutritional benefits, particularly sugar-sweetened beverages, with the aim of changing purchasing habits and achieving healthier diets.

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