

and think' about their own consumption. The results indicated that clear, factual, and non-ambiguous information was more persuasive. Sugar content pictogram labels were most persuasive.

**Conclusion:** On-bottle warning labels are a useful tool to help remind young adults of the potential consequences of over-consumption of sugary drinks. However, the content and execution of the label is important to delivering messages that are perceived as relevant, believable and to make them 'stop and think' about their own consumption.

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### Frequency of price promotions on food in a major Australian supermarket chain: analysis by food category and relative product healthiness



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**Introduction:** Only 60% of food purchases come from supermarkets, with price promotion extensively used by retailers to influence consumer purchasing. The extent of price promotions in Australian supermarkets and how they differ by food category and overtime is unclear.

**Methods:** Weekly data on price promotions were collected online for one year (April 2017–April 2018) from the largest Australian supermarket. Over 1500 food items (healthier  $n=553$ , less healthy  $n=990$ ) were included from the following categories: healthier=low-sugar breakfast cereals, packaged bread, muesli/oats, canned beans/legumes, frozen fruit and frozen vegetables; less healthy=high-sugar breakfast cereals, chips, chocolate, ice-cream and confectionery. Only temporary price promotions were considered. A multi-buy was defined as a promotion where more than one unit is purchased to receive the discounted price. The average proportion of products on price promotion each week and the average discount was calculated for each food category.

**Results:** On average, healthier food categories had 15% of products price promoted per week while less healthy food categories had 29% of products on price promotion. The categories with the highest proportion of products price promoted were chocolate (40%), chips (33%) and ice-cream (22%). The average discount was 15% on healthier categories, and 26% on less healthy categories. The largest price discounts were for chocolate (31%), ice-cream (27%), and chips (24%). Almost half of all multi-buy promotions were for multipack chips, with 60% of multipack chips available as a multi-buy promotion. Seasonal trends indicated that chips and ice-cream were more frequently discounted in summer, and confectionery more frequently discounted in winter.

**Conclusion:** Price promotions, including multi-buys, were both more prevalent and larger, for less healthy food categories. Policies to restrict price promotions on less healthy food items are likely to have a strong impact on purchasing patterns and thereby improve population diets.

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### The potential cost-effectiveness of regulatory restriction on price promotions of carbonated sugary beverages in Australia



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**Background:** Restricting price promotions on unhealthy food and beverages to reduce their consumption has been identified as a promising approach for improving population diets. This study modelled the potential cost-effectiveness of national regulatory restriction on all price promotions (including sales and multi-buy offers) of carbonated sugary beverages, in Australia, from a limited societal perspective.

**Methods:** UK data on the uplift in sales of carbonated sugary beverages when price promoted, together with Australian consumption data (under the informed assumption that price promotions across the two countries are similar), was used to estimate reductions in purchases and resultant changes in body mass index (BMI) following regulatory restriction on promotions. A multi-state, multiple-cohort Markov model was used to estimate the long-term obesity-related health (estimated using health adjusted life years, HALYs) and cost outcomes over the lifetime of the 2010 Australian population. The costs of the intervention included the cost of passing legislation in Australian parliament, the cost of assisting retailers with implementing the policy, the cost of marketing the policy and the cost of monitoring retailers to ensure adherence to the policy. It was assumed that there was no cost to industry.

**Results:** The regulatory intervention resulted in a weighted mean change in daily energy intake of  $-12$  kJ. This translated to a weighted mean change in weight of  $-0.11$  kg, leading to approximately 2063 HALYs saved over the lifetime of the modelled population. Lifetime intervention costs were estimated to be AUD 17.0 million, with lifetime healthcare cost savings of approximately AUD 23.2 million. The intervention was likely to be dominant, resulting in long term cost savings and health benefits.

**Conclusions:** This analysis demonstrated that a regulatory restriction on price promotions of carbonated sugary beverages is likely to be highly cost-effective as an obesity prevention intervention.

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