preferences commonly reported during energy restriction.

## 12

### Invited talk: Nudging supermarket customers toward healthier eating

Adrian Cameron

*Deakin University, Burwood, VIC, Australia*

The primary drivers of unhealthy diets are food environments that encourage unhealthy eating. Australian supermarkets are our primary source of food, with marketing techniques in this environment (manipulation of promotion, product, price and placement) having the potential to improve the healthiness of consumer food purchases at a population level. The current Australian supermarket environment (both within-store and in catalogues) will be reviewed, including how it compares internationally. Following on from this, the results of a series of recently completed within-store interventions in Australian supermarkets will be presented. These trials were a collaboration between retail, local government, state government and academic partners and were conducted in eight supermarkets in regional Victoria. Primary outcome assessment was whole-store sales of healthy and unhealthy food based on store sales data (scanner data). The low-cost, scalable and feasible interventions tested included labelling, signage and positioning interventions. Customer perceptions of these interventions, and the financial effect on the retailer were also assessed and will be discussed.

## 13

### Invited talk: Can price discounts on healthy food influence spending in an extremely socioeconomically disadvantaged population? The SHOP@RIC study

Julie Brimblecombe

*Menzies School of Health Research, Casuarina, NT, Australia*

Globally, diet is the leading risk for burden of disease. Diet is poorer and burden of disease higher for socio-economically disadvantaged populations in high and middle income countries. Strategies are urgently needed to address this inequity. We examined the effectiveness of a price discount on selected purchases with and without consumer education, delivered in-store in remote Indigenous communities. A stepped-wedge randomised design was used, with 20 communities randomly assigned to 5 sets of 4 communities, spaced eight weeks apart. A 20% price discount on fresh and frozen fruit and vegetables, water and diet soft-drinks was applied for a period of 24 weeks in the community store. Two stores in each set were randomly assigned to receive a combined strategy (discount and education). Intervention effect was measured using mixed models employing weekly point-of-sale data for 131 weeks. The primary outcome was the percent change in fruit and vegetable purchases (grams) per person per day. The immediate effect of applying the price discount alone was to increase sales of fruit and vegetables combined by 13% (95%CI: 5%, 23%), fruit by 21% (7, 37) and vegetables by 9% (1, 18). Bottled water sales increased by 18% (1, 37); no significant effect was observed for artificially sweetened soft drink 5% (−6, 18). The additional benefit of in-store consumer education was an increase in vegetable sales of 14% (3%, 26%). Consistent with other studies, a price discount can improve food purchasing in low socio-economic communities.

## 14

### Invited talk: Healthy Food Environments: Navigating, synthesising and communicating the quagmire of evidence to inform policy-making

Debra Hector

*ACT, Australia*

Making sense of copious, heterogeneous evidence to inform large-scale public health environmental intervention and policy is highly challenging. This is especially so in complex arenas such as 'the Food Environment'.

While there is often sufficient evidence of associations between risk factors and environmental determinants, few food environmental and policy actions have been implemented and/or sufficiently evaluated to provide robust evidence of effectiveness at the impact and outcome levels. Linking intervention to distal health outcomes of policy interest, such as obesity, is often not possible.

Additionally, study designs applicable to the clinical setting are often much less applicable

or possible in public health. Further, decision-makers can lack an understanding of the different types of evidence that might inform decision-making in these more complex areas hence may dismiss evidence considered less 'strong' according to traditional evidence hierarchies. Systematic reviews of randomised, controlled 'trials' are still hailed as the gold standard despite them rarely providing answers to broad public health policy questions.

The lack of consensus on an evidence grading system within the public health domain further stymies the synthesis and translation of evidence. Existing schemas and typologies differ in the criteria used to appraise individual studies and to grade overall bodies of evidence. They differ also in the text descriptors used for communicating the 'strength' of evidence.

In this presentation I describe the challenges encountered in synthesising, appraising and communicating the complex, diverse evidence base with respect to the retail, pricing and promotion domains of the food environment, to inform government decision-making. An extensive dialogue between the reviewer and government was required to find solutions to these challenges. The tabulated summaries of evidence will be presented and discussed to illustrate the identified solutions in this instance.

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## 15

### The effect on beverage sales of removal of unhealthy beverages from display in a self-service café

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**Objectives:** Compelling evidence suggests that consumption of unhealthy drinks is associated with weight gain and an increased risk of a number of adverse health outcomes [1,2]. This study assessed the impact of the removal of unhealthy beverages from display by the retailer at a self-service café within a major health service.

**Methodology:** Beverages were categorised based on a state government nutrient profiling system, which classifies beverages as 'green' (best choices), 'amber' (choose carefully) and 'red' (limit). The total sales (as number of items sold per week) of beverages in the café were measured for five weeks prior to strategy implementation and for another six weeks after removal of all red beverages from self-service display (which were still available for purchase on request). $T$-tests were used to compare mean total beverage sales and sales of red, amber and green beverages, pre- and post-strategy implementation.

**Results:** After strategy implementation, the proportion of red beverages sold decreased significantly from 34% to 10% of total beverage sales ($P < 0.001$). As amber and green beverage sales increased after strategy implementation, mean total weekly beverage sales did not significantly change ($P = 0.78$). Consumers appeared to more readily switch from purchasing red beverages to purchasing amber beverages, rather than green beverages (the healthiest option).