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### Healthy diets ASAP (Australian Standardized Affordability and Pricing) methods and results: Are healthy diets really more expensive and how would price be affected by changes to the GST?

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**Introduction:** Fiscal policies may help improve population diets but standardised food pricing methods to inform decisions are lacking. We aimed to develop and validate methods following approaches proposed by the International Network for Food and Obesity/Non-communicable Diseases Research, Monitoring and Action Support (INFORMAS) [1]; use resultant methods to assess price, relative price and affordability of current and healthy (recommended) diets; and assess impacts of potential changes to taxation policy in Australia.

**Methods:** 'Current diets' were constructed using data from the recent Australian Health Survey and 'healthy diets' from Australian Dietary Guidelines models, for households of two adults and two children. Food prices were collected in all stores in randomly selected areas of SEIFA quintiles in two capital cities. Diet cost under potential policy scenarios was compared with household incomes. Methods were endorsed at a National Forum.

**Results:** Households spent the majority (58%) of their current food budget on unhealthy, energy-dense choices, including take-away foods (14%) and sugar sweetened beverages (4%) as confirmed by Australian Bureau of Statistics analysis of household consumption data. Healthy diets cost 15% less than current diets and 31% of the disposable income of low socioeconomic households. These would become unaffordable under proposed changes to expand 10% goods and services tax (GST) to include basic healthy foods. However, retaining exemptions and increasing GST rate may help improve food security.

**Conclusions:** This project shows that standardised diet pricing methods can be developed, validated and agreed nationally. Results suggest that healthy diets can be more affordable than current diets, but other factors may be as important as price in determining food choice. Expanding the base of the GST is not a good idea for food security or health [2].



## References

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### Food pricing strategies aimed at improving health in remote Indigenous communities



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**Background:** Food pricing strategies, independently or combined with strategies such as nutrition and price promotion at remote community stores holds promise as a strategy to improve Indigenous health.

**Methods:** Retailers, nutritionists and others identified using a snowball sample methodology, participated in semi-structured interviews to identify food pricing strategies in remote communities aimed at improving health outcomes. Interviews were audio-recorded and transcribed verbatim. Relevant documents were sourced or provided by participants. Content analysis was conducted by two authors.

**Results:** 43 participants based in the Northern Territory or Queensland participated from September 2015 to May 2016. Interview and document analysis show that food pricing policy was dominated by subsidies (i.e., price reduction, voucher) or cross-subsidies (i.e., price reduction combined with price increase), often of moderate magnitude and largely on fruit and vegetables, water, diet soft-drinks and soft-drinks. Business practices described indicate that healthier foods often had a lower mark-up than unhealthy foods. Whilst there was some evidence of promotion and other complementary strategies, this is a developing area for remote stores.

**Conclusion:** Food pricing policies target key products for health improvement (i.e., fruit, vegetables and beverages). The limited range of targeted products, the mostly moderate magnitude of strategies and the lack of use of taxes

are notable. Improving health outcomes through pricing strategies is likely to require a broader selection of targeted foods, the deployment of higher subsidies/taxes and the use of well-designed complementary strategies. The feasibility, sustainability and acceptability of such approaches would need to be considered by remote food suppliers.

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**Invited talk: IC7: A novel therapy for the treatment of metabolic disease**



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We have previously shown that the gp130 cytokines interleukin-6 (IL-6) and ciliary neurotrophic factor (CNTF) can improve obesity and insulin resistance in both mice and humans [1,2]. However, due to the known inflammatory effects of IL6 and the antigenic response in some patients to the clinically used form of CNTF (Axokine), both proteins have no therapeutic utility. In an attempt to overcome this issue, we have designed a chimeric gp130 ligand, termed IC7, where one gp130 binding site has been removed from IL6 and replaced with the LIFR binding site from CNTF. This 'module swap' creates a new cytokine with CNTF-like, but IL-6R dependent activity. In a series of experiments, we have shown that IC7 has similar positive metabolic effects as CNTF, but may overcome the negative effects experienced by Axokine. Specifically, IC7 significantly improved glucose tolerance and hyperglycaemia and prevents weight gain and liver steatosis in obese mice. In addition, we have shown efficacy and safety in a study in non-human primates (*Macaca fascicularis*). In addition, in comprehensive human cell based assays, we have demonstrated that IC7, unlike Axokine, results in no signs of immunogenicity. Thus IC7 is a realistic and viable next generation biological for the treatment of obesity and T2D, disorders that are currently pandemic.

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**Invited talk: Obesity in diabetes: Friend or foe?**



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We associate obesity with poor clinical outcomes, including in people with type 2 diabetes. Compelling evidence links obesity in early life to higher risks of diabetes and death, justifying population-wide prevention efforts. However, obesity has been associated with improved rather than poorer diabetes outcomes and we lack good evidence that weight loss prevents diabetes complications and death. Obesity in diabetes might also confer health benefits in terms of enhancing beta-cell mass and maintaining bone health. These paradoxical findings will form the basis of discussion about the therapeutic role of weight loss in diabetes.

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**Invited talk: Walt Whitman, Herman Melville, and the Challenges of obesity and diabetes**



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Worldwide prevalence reports for obesity and diabetes over recent decades suggest that the chronic management of metabolic disease will dominate health care for the foreseeable future. Feeding behaviours contributing to obesity have been recognised for nearly a half-century, many of the key molecular mediators of central nervous system appetite control have been identified, and novel pharmacological agents have been introduced to treat obesity. However, less than robust results from medical management have promoted the pursuit of alternative clinical and scientific approaches. Anatomical interventions including bariatric surgery are gaining acceptance despite uncertainties about patient selection and