Plenary 1: Our Food Supply: Healthy, Accessible and Secure?
Regulating the health of our food supply?
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Background - The food industry are constantly looking for a new angle to promote food products and the regulatory environment is challenged with ensuring safety for the consumer while providing for innovation in the food supply.

Objectives - To provide an overview of the developing concepts of nutritional risk analysis and the importance of these in assessment of the nutritional safety of the food supply.

Design - While the traditional concepts of risk analysis rest on the identification and management of hazards in the food supply, nutritional risk analysis is unique in that there is risk associated with both excess and inadequate levels of nutrients in the food supply. In addition to the value of know nutrients, there are an increasing number of substances being considered by food manufacturers that are not well known or understood.

Examples of recent challenges to food regulators will be presented in an effort to illustrate some of the complexities of regulating a food supply that wants to offer innovation and nutritional enhancement.

Outcomes and Conclusion - The regulatory environment requires increasingly sophisticated tools to ensure the safety and appropriateness of the changing food supply and provide consumers with confidence in the value of the food they may wish to consume.

Food insecurity and its relationship to obesity
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Food insecurity is “the limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways” 1. The determinants of food insecurity can relate to both indicators of food supply and an individual’s resources and capacity to acquire food. Standard measures of food insecurity largely focus on a lack of food because of a lack of money and range in complexity from a single question to multi-item questionnaires 2. In Australia, the 1995 National Nutrition Survey 2 indicated that 5% of Australians were food insecure i.e. answered in the affirmative to this question “In the past 12 months, have you or anyone in your household run out of food and not had enough money to purchase more?” More recent data from the Victorian Population Health Survey 2005 indicate that 4.6% of Victorian households were food insecure with 7.2% experiencing this once a week or more. The prevalence was highest amongst single parent households with dependent children (20.6%) 3. In the New Zealand National Nutrition Survey 1997 eight indicator statements were included to determine household food security. In this survey, 11% of households indicated that ‘food runs out in my/our household due to a lack of money’ 4.

A paradoxical relationship has been shown between food insecurity and obesity. Data from Australia, New Zealand, the US and Europe indicate that the risk of obesity is 20 to 40% higher in individuals living in food insecure households 6. This is seen only in women, though there are data from both the US and Australia suggesting an association in children. In addition to gender, there may be some modifying effect of ethnicity and cultural background with certain ethnic groups being at higher risk of food insecurity.

It is likely that there are multiple determinants of the relationship between food insecurity and obesity. The literature suggests that these could be environmental, social, economic or cultural. It is known that food consumption (and overconsumption) may be moderated by stress, social and cultural norms and values and food and nutrition knowledge and skill. There is evidence that local food availability and cost and physical access to food may impact on food security and consumption, though the causal pathway has not been confirmed. Similarly the impact of macro level social and economic changes on the risk of food insecurity and food consumption are not clear. All these factors need to be considered in developing a model to explain the relationship between food insecurity and obesity. Given the increasing prevalence of obesity in Australasia, in particular among low income and economically disadvantaged groups at risk of food insecurity, it is important that we develop a stronger evidence base for understanding the relationship between poverty, low income, food insecurity and obesity.

References