

*NSA*

## New Nutrition: Novel Foods in Nutrition and Clinical Practice

### **Epidemiology of food and disease: The Melbourne cohort study**

GG Giles

*Cancer Epidemiology Centre, The Cancer Council Victoria, Carlton South, Victoria*

Proving the links between diet and various cancers is not a trivial task. Studies of nutritional epidemiology face major problems including: how and when to measure diet, dietary measurement error(s), problems with dietary recall, ubiquitous, correlated and limited ranges of dietary exposures, and temporal changes in diet. This explains why after decades of research we still lack good evidence upon which to base dietary interventions designed to reduce cancer risk.

Historically, the majority of diet and cancer studies have been small case-control studies with retrospective exposure assessment. These studies, that are extremely prone to bias and to error, have provided much of the public confusion in regard to diet and cancer.

Many of the problems with studying diet and cancer can be addressed by performing prospective studies, measuring diet well in advance of cancer diagnosis, by measuring diet better, and by choosing the study population to have a wider than average range of dietary intakes. The Melbourne Collaborative Cohort Study (MCCS) that was set up in the early 1990s comprises almost 42,000 Melbourne residents aged 40-69, a third of whom are southern European migrants to Australia. By including people from different ethnic groups we wished to increase the range and heterogeneity of intakes in foods and nutrients of interest; e.g. fatty acids and antioxidants.

Preliminary findings from the MCCS will be described and compared with recent findings from other cohort studies in the US and Europe. In contrast to the widely held belief promoted by case-control studies, a protective effect of vegetables and fruit is not clear.