Concurrent Session 1

Understanding consumers’ motivations to increase selenium intakes

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Background - There is evidence that increasing Selenium (Se) intakes may reduce the risk of some diseases.

Objectives - To understand consumers’ knowledge of antioxidants, minerals and specifically Se and their putative relationship to disease risk reduction. To understand consumers’ preferences for options to increase Se intakes and their motivations to consume Se enriched foods to reduce the risk of some cancers.

Design - Two questionnaires: 1) “knowledge” (n = 63) and 2) “preferences and motivations” (n = 212) were administered. Socio-demographic characteristics were matched ($\chi^2$, $P > 0.05$). With a gender ratio of ~1:1, half were tertiary educated and had professional occupations (high socio-economic status, SES).

Outcomes - Knowledge of antioxidants and minerals and their role in disease prevention was low, Se unknown but associations were made between antioxidants and fruits and vegetables, tea and wine. It is likely that respondents to Questionnaire 2 had similar low knowledge and therefore primarily responded to a text description presentation of Se, cancer and options for increasing intakes. There was general favourability of Se enrichment of foods, with a preference for biofortification (Se enrichment of soils) above enrichment during manufacturing. Using multiple regression analysis of variables within Protection Motivation Theory the “importance of consuming Se enriched foods” was predicted by product efficacy ($\beta$ 0.35); severity/fear of cancer ($\beta$ 0.19); self efficacy ($\beta$ 0.16) and vulnerability to cancer ($\beta$ 0.15; all $P <$0.01; $R^2$ 0.35). However when the dependent variable was product specific (e.g. Se enriched bread, etc) the dominant predictor was self efficacy ($\beta$ 0.70 – 0.86; $P <$0.001; $R^2$ 0.55 – 0.76) with vulnerability an additional significant but minor predictor for some products.

Conclusions - Knowledge of nutrient-disease risk reduction was low (even amongst high SES) and consumers tend to be food (not nutrient) orientated. However, once informed, respondents were generally favourable towards Se enrichment of foods using biofortification. Food specific self efficacy suggests that consumers are aware of their own food choice behaviours as being crucial to the uptake of nutrient enrichment for disease risk reduction.

Why do women of low socioeconomic status have poorer diets than women of higher socioeconomic status?

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Background - In developed countries, persons of low socioeconomic status (SES) are less likely to consume diets consistent with dietary guidelines. For example, lower SES individuals are more likely to consume diets high in fat, low in micronutrient density, and to have lower intakes of fruit and vegetables. As a result, studies repeatedly find that people of low SES possess nutrient intakes and dietary patterns that increase the risk of diet-related disease and overall health inequalities. However, little is known about the mechanisms that influence SES differences in diet. In particular, few studies have focused on the environmental contributors to SES variations in food choice, and where they have, there have been conflicting findings.

Objective - The aim of the study was to investigate SES variations in the role of perceived food availability, accessibility and affordability among women.

Design - In 2004, a sample of 1580 women aged 18-65 years randomly selected from the Australian electoral roll, completed a mailed survey. Women were selected from low, mid and high SES areas in Melbourne (15 neighbourhoods from each). The survey measured considerations underlying food choices and perceptions of the influence of availability, access and cost on these food choices. Individual-level details such as education, occupation and income were also obtained.

Outcomes - Women of low SES were more likely to report not being able to afford healthy foods and considered the cost of food as a more important barrier than those of high SES. There were few significant SES differences in perceptions of availability, access and/or quality of healthy foods locally, although high SES women did report greater access to public and private transport.

Conclusion - Public health strategies aimed at reducing SES inequalities in diet might focus on promoting healthy diets that are low cost. Future research should confirm these findings by assessing objectively whether the availability, access and cost of healthy foods differ in areas of varying SES.