

## ICCN Poster Presentations

### Food, the environment and health, econutrition

#### **Food insecurity in the UK: determinants and consequences.**

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Food insecurity exists where there is uncertainty that food will be available, or there is an inability to access the available food, because of financial or physical limitations. Food insecurity is multidimensional and results in poorer health with around 815 million people worldwide food insecure (FAO, 1996). In the USA, about 12% of the general population is food insecure (Bickel et al 2000), but less is known about the problem in the UK. The hypothesis that the risk of food insecurity is higher in those people who are most deprived and have a negative attitude to healthy eating is tested. The population was deprived households in Leeds, UK ( $n = 459$ ). A detailed questionnaire was completed; including an assessment of food insecurity using a 6-item scale (Bickel *et al.*, 2000) deprivation was defined according to Townsend (1987). To analyse data SPSS was used with binary logistic regression to determine associations and the level of risk. 30% of households were defined as being food insecure. This is similar to a recent UK study in a deprived area (Tingay *et al.*, 2003). The level of food insecurity was 40% in those who were most deprived, compared with 25% in those who were less deprived (OR=2.004, CI= 1.306-3.077 with  $p = 0.001$ ). The level of food insecurity was 33% in those who had a negative attitude, compared with 24% in those who held positive attitude (OR=1.551, CI= 1.008-2.388 with  $p = 0.046$ ). The risk of being food insecure was nearly three times higher in those who were deprived and had a negative attitude compared to those who were not deprived and had positive attitudes (OR 2.813, CI= 1.576-5.022;  $p < 0.001$ ). This study shows that in a deprived area in the UK, food insecurity affects many people. The cause appears more complex than simply resources alone. Any programme aimed at alleviating food insecurity will need to understand and address these complex interactions.

#### **Seasonal variation of food consumption patterns in Korea**

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This analysis was performed to investigate the seasonal difference of food consumptions according to cooking methods affecting nutrient availability and fat consumptions using 1998 Korean National Health and Nutrition Examination Survey. A cross-sectional survey was conducted in winter, 1998. A total of 10400 subjects were selected by stratified multistage probability sampling design and completed dietary questionnaire including food intakes for one day by the 24 hour recall method. Among these subjects, dietary survey was repeated for sub-sample in spring ( $n=2303$ ), summer ( $n=2401$ ), and fall ( $n=2083$ ) of the next year. All food eaten (dishes) were classified by the cooking method. Frequency and amount of food by the cooking method for each season are analyzed. Total amount of food consumption was significantly higher in winter (1266g) and summer (1251g) than spring (1105g) and fall (1087g) ( $p < 0.05$ ). In winter, people consumed more Kuk (Korean style soup), Tchigae (Korean style stew), seasoned steamed foods, deep fat frying foods, fresh vegetable salads, Kimchi, and raw fish and their products than in other seasons. The amount of food intake from cooked rice, Kuk, cooked vegetable salads, fresh vegetable salads, and beverages and teas was higher in spring than in other seasons. In summer, noodles, dairy products, fruits, steamed grains and potatoes, and fresh vegetables were consumed more than in other seasons. In fall, stir fried foods, cooked vegetable salads, and legumes, nuts, and seeds were consumed more. The intake of roasted foods and grilled foods were similar in all seasons. It is concluded that Koreans are using various cooking methods by the season. They use more various cooking methods in winter, more traditional cooking method in spring, more fresh food in summer, and more oily food in fall. With these results, in Korea both food items and cooking methods are should be considered to use dietary data and to do nutrition education in clinical setting and community.