

## Satellite Symposium

**The Low Income Diet and Nutrition Survey. Findings: nutritional science**

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The Low Income Diet and Nutrition Survey (LIDNS)<sup>(1)</sup> was designed to assess the dietary habits and nutritional status of individuals living in materially-deprived households in the UK. Data were collected from a nationally-representative sample of 3728 individuals aged  $\geq 2$  years between 2003 and 2005 using four 24 h recalls with estimated portion sizes, a blood sample and anthropometry. Nutrient intakes were compared with UK dietary recommendations<sup>(2)</sup>.

For adults aged 19–64 years the mean carbohydrate intakes were close to the recommendation of  $\geq 50\%$  food energy from carbohydrate (men 47.9%, women 48.8%), but non-milk extrinsic sugar (NMES) intakes exceeded the maximum recommendation of 11% (men 15.2%, women 13.5%). SFA intakes also exceeded the maximum recommendation of 11% food energy (men and women 13.4%) and mean NSP intakes were low (men 12.8 g, women 10.7 g).

Mean vitamin and mineral intakes for adults (aged  $\geq 19$  years) were close to or above the reference nutrient intake (RNI) with the exception of Fe for women (79% RNI) and Mg and K for men and women (84% and 72% respectively for Mg, 82% and 67% respectively for K). Of the adults  $> 10\%$  had intakes of vitamin A, riboflavin, Fe, Mg, K and Zn below the lower RNI (LRNI).

Of the men aged  $\geq 19$  years 25% had plasma vitamin C levels  $< 11 \mu\text{mol/l}$  and approximately one-fifth of adults had serum 25-hydroxyvitamin D levels  $< 25 \text{ nmol/l}$ .

Mean consumption of fruit and vegetables was 2.4 portions for men and 2.5 portions for women. Oily fish consumption was very low; only 15% of adults reported eating oily fish and the mean consumption of oily fish and oily-fish dishes overall was 34 g/week for men and 48 g/week for women.

Comparison with the general population sampled in the most-recent National Diet and Nutrition Survey<sup>(3)</sup> showed similar patterns of nutrient intake for adults; however, mean NMES intakes were higher and NSP, fruit and vegetable, wholemeal bread and wholegrain and high-fibre breakfast cereal intakes were lower in LIDNS. For micronutrients the percentages with intakes below the LRNI tended to be slightly greater in LIDNS.

Of the men 62% and 63% of women were overweight or obese ( $\text{BMI} > 25 \text{ kg/m}^2$ ). Of the men 16% and 6% of women exceeded the weekly alcohol intake recommendation, but approximately one-fifth of adults reported that they did not drink at all. Of the men 45% and 40% of women smoked.

Overall reported diets were poor in the low-income population, but they are only slightly worse than those of the general population. The combination of these poor diets with obesity and other lifestyle factors that increase risk of chronic disease emphasises the need for continued public health efforts to improve diets and lifestyle across the UK population.

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1. Nelson M, Erens B, Bates B, Church S & Boshier T (editors) (2007) *Low Income Diet and Nutrition Survey*. London: The Stationery Office.
2. Department of Health (1991) *Dietary Reference Values for Food Energy and Nutrients for the United Kingdom*. London: H. M. Stationery Office.
3. Hoare J, Henderson L, Bates CJ, Prentice A, Birch M, Swan G & Farron M (2004) *National Diet and Nutrition Survey: Adults Aged 19 to 64 Years*. vol. 5: *Summary Report*. London: The Stationery Office.