Joint Irish Section and American Society for Nutrition Meeting, 15–17 June 2011, 70th anniversary: 'Vitamins in early development and healthy ageing: impact on infectious and chronic disease'

## Intakes of micronutrients in Irish adults (18-64 years)

E. Walsh<sup>1</sup>, J. Walton<sup>1</sup>, B. McNulty<sup>2</sup>, A. Nugent<sup>2</sup>, M. Gibney<sup>2</sup> and A. Flynn<sup>1</sup>

Irish Universities Nutrition Alliance (IUNA) at: <sup>1</sup>School of Food and Nutritional Sciences, University College Cork, Republic of Ireland and <sup>2</sup>UCD Institute of Food and Health, University College Dublin, Belfield, Dublin 4,

Republic of Ireland

The objective of this study was to estimate the intakes of micronutrients in Irish adults aged 18–64 years. Analysis was based on the National Adult Nutrition Survey (NANS), which was carried out between 2008 and 2010 to establish a database of habitual food and drink consumption. A 4-d semi-weighed food record was used to collect food intake data from 1274 adults (634 males, 640 females) aged 18–64 years. Analysis of dietary intake data was carried out using WISP© (Tinuviel Software, Anglesey, UK), which is based on *McCance and Widdowson's The Composition of Foods*, 6th edition<sup>(1)</sup>. The % of individuals with mean daily intakes less than the estimated average requirement (EAR)<sup>(2)</sup> for selected micronutrients is reported as an estimate of the prevalence of inadequate intakes<sup>(3)</sup>.

Micronutrient	Males (n 634)			Females (n 640)		
	Mean	SD	% <ear< th=""><th>Mean</th><th>SD</th><th>%<ear< th=""></ear<></th></ear<>	Mean	SD	% <ear< th=""></ear<>
Ca (mg)	1060	407	6.3	824	356	16.1
Fe (mg)	15.0	9.0	3.5	13.7	18.4	48.0
Vitamin A (µg)	1140	995	20.8	1028	896	14.7
Thiamin (mg)	2.9	5.8	0.0	3.4	10.8	0.0
Riboflavin (mg)	3.2	6.0	5.8	3.3	9.2	0.2
Vitamin $B_{12}$ (µg)	7.3	6.9	0.8	8.0	45.3	3.1
Folate (µg)	407	209	3.3	339	388	10.9
Vitamin C (mg)	114	152	9.6	141	304	9.1

A significant prevalence of inadequate intakes was observed for vitamin A in men and Fe, Ca, vitamin A and folate in women. Only 2% of women aged 18–35 years and 1% of women aged 36–50 years consumed the supplemental intake of 400 µg of folic acid recommended to reduce the risk of neural tube defects (NTD) in infants. A high prevalence of inadequate Fe intake (61%) was observed in women aged 18–50 years, reflecting their high Fe requirements. It is evident that among adults in Ireland, particularly women, there is a significant prevalence of inadequate intakes of some important micronutrients.

The project was funded by the Department of Agriculture, Fisheries and Food under the Food for Health Research Initiative.

- 1. Food Standards Agency (2002) McCance and Widdowson's The Composition of Foods, 6th ed. Cambridge: Royal Society of Chemistry.
- 2. Department of Health UK (1991) Dietary Reference Values of Food Energy and Nutrients for the United Kingdom. London: HMSO.
- 3. Carriquiry AL (1999) Assessing the prevalence of nutrient inadequacy. Public Health Nutr 2, 23-33.