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Comparison of intakes of Scottish Dietary Goals foods and nutrients by two socio-demographic measures

K.L. Barton¹, W.L. Wrieden² and L.F. Masson³

¹Division of Food and Drink, Abertay University, Dundee DD1 1HG, ²Human Nutrition Research Centre and Institute of Health and Society, Newcastle University, Newcastle upon Tyne NE2 4HH, UK and ³School of Pharmacy and Life Sciences, Robert Gordon University, Aberdeen, AB10 7GJ

Scottish Dietary Goals⁽¹⁾ (Targets) have been monitored since 2001⁽²⁾ using secondary analysis of food purchase data. To date, the area based Scottish Index of Multiple Deprivation (SIMD) has been the socio-demographic variable used to determine any associations between diet and socioeconomic status. However little is known about the association between intakes of foods and nutrients and actual household income.

Household food purchase data from 2001 to 2012, for Scotland, from the UK Living Costs and Food Survey were analysed to estimate intakes of Scottish Dietary Goal foods and nutrients by Equivalised Income. Adjustments were made to allocate the correct proportion of each food to the appropriate food group (including to composite foods), for waste⁽²⁾, and for weight increase or loss due to cooking or dilution. Data were analysed using general linear models within the complex samples module of SPSS (SPSS Inc., Chicago, IL, USA) weighting to the Scottish population and taking account of sampling methods. Results are presented as population means, with 95 % confidence intervals (95 % CI), (i.e. includes consumers and non-consumers) estimated from household and eating out food purchases.

	Equivalised Income Quintile					
	1* (n 1284) (wt n 10122)	2 (n 1292) (wt n 11337)	3 (n 1295) (wt n 12760)	4 (n 1294) (wt n 13497)	5* (n 1291) (wt n 12711)	P-value for Linear Association
Fruit and Vegetables ¹ (g/day)	214 201, 227	243 229, 257	260 247, 272	281 270, 293	343 331, 355	<0.001
Oil Rich Fish (g/day)	23.6 19.8, 27.4	28.6 24.6, 32.6	27·0 23·2, 30·8	29.6 26.4, 32.8	42.9 36.0, 49.8	<0.001
Red and Processed Meat (g/day)	59·6 55·9, 63·3	63·9 60·8, 67·1	63·0 59·4, 66·7	62·4 60·0, 64·8	61·6 59·0, 64·1	0.716
MJ/day	8·0 7·8, 8·3	8·4 8·1, 8·6	8.5 8.2, 8.7	8·4 8·2, 8·6	8·7 8·5, 8·9	0.003
ED kJ/100 g	719 709, 729	725 714, 736	720 709, 731	723 714, 732	708 698, 717	0.092
% Energy Fat	39·3 38·8, 39·9	38·8 38·3, 39·3	38·9 38·5, 39·3	38·7 38·2, 39·1	38·7 38·3, 39·1	0.048
% Energy Saturated Fat	15·7 15·4, 15·9	15·5 15·3, 15·7	15·5 15·3, 15·7	15·2 15·0, 15·3	15·0 14·8, 15·2	<0.001
% Energy NMES	15·3 14·8, 15·9	16·1 15·6, 16·6	15·1 14·7, 15·6	14·9 14·6, 15·2	14·1 13·8, 14·5	<0.001
NSP (g/day)	11·1 10·7, 11·5	11.9 11.5, 12.3	12·3 11·9, 12·7	12·6 12·3, 12·9	13·8 13·5, 14·2	<0.001

1 = Lowest Income; 5 = Highest Income; n = number of households and weighted (wt) n = weighted number of people in the sample. Includes fruit and vegetables and baked beans.

Estimated intakes for the majority of foods and nutrients follow similar trends to those calculated by SIMD⁽⁴⁾, particularly for fruit and vegetables, oil rich fish, added sugars (NMES) and fibre (NSP). However significant differences for energy, fat and saturated fat intakes have not been evident in analyses carried out by SIMD. Whilst using SIMD as a measure of socio-economic status allows for comparison with results for other studies, the income available for households to purchase foods does have to be considered and warrants further work to inform future policy to target diet and social inequalities.

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^{1.} Scottish Government. (2016) "Revised Dietary Goals for Scotland." http://www.gov.scot/Resource/0049/00497558.pdf (accessed 31 March 2016).