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Associations between diet quality and socio-economic factors in the UK population

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Diet Quality Indices (DQIs) assess the extent to which individuals' overall diet conforms to dietary guidelines. A DQI originally developed in 2009 to score diets in line with the then Scottish Dietary Targets⁽¹⁾, has recently been updated in line with the current Scottish Diet Goals⁽²⁾. The aim of the present study was to investigate the association of this updated DQI with socio-economic factors, in the UK population from years 1–6 (2008–2014) of the National Diet and Nutrition Survey. A score (0–10) was assigned to each of the 9 DQI components (fruit and vegetables, oily fish, red and processed meat, total fat, saturated fat, total carbohydrates, free sugars, fibre and energy density) then summed and adjusted to a percentage score. Associations between DQI score and socio-economic factors were examined in those aged 2+ years adjusting for the other socio-economic variables, survey year, country, sex, age, ethnicity, number of people in household and children in household.

Mean DQI percentage scores were low overall (mean 41.5; 95 % CI 40.9, 42.0) and in all subgroups. DQI was significantly related to house ownership and NS-SEC classification with those owning their own home and those in managerial and professional occupations having the highest DQI. Although household income and work status were related to DQI score in univariate analyses (results not shown), when adjusting for other factors they were no longer significant. There were clear associations between diet quality and house ownership and occupation in the UK population between 2008–2014.

	n*	Diet Quality Index percentage score		P**	
		Mean	95 % CI		
Equivalised household income quintile	1 (lowest)	1528	44.4	42.4, 46.4	
	2	1541	46.4	44.3, 48.6	
	3	1510	46.3	44.1, 48.4	
	4	1585	46.3	44.1, 48.5	
	5 (highest)	1533	46.5	44.2, 48.8	0.121†
House ownership	Own outright	1599	48.9	46.7, 51.1	Reference
	Own with mortgage	3467	47.3	45.3, 49.3	0.085
	Rent local authority	899	42.8	40.4, 45.2	<0.001
	Rent housing association	580	44.7	42.1, 47.3	0.001
	Rent privately, furnished	194	46.3	42.5, 50.0	0.188
	Rent privately, unfurnished	958	45.7	43.5, 48.0	0.006
Work status	In full or part-time employment	2379	46.0	43.7, 48.4	Reference
	Not working at present	2243	46.4	44.1, 48.8	0.639
	Going to school or college full-time	3075	45.4	42.9, 47.9	0.691
NS-SEC classification (household reference person)	Higher managerial and professional occupations	1171	47.2	45.0, 49.5	Reference
	Lower managerial and professional occupations	1973	46.4	44.4, 48.4	0.340
	Intermediate occupations	760	45.0	42.6, 47.5	0.062
	Small employers and own account workers	776	44.0	41.6, 46.4	0.004
	Lower supervisory and technical occupations	732	44.3	41.8, 46.8	0.016
	Semi-routine occupations	1077	45.3	43.0, 47.6	0.089
	Routine occupations	876	44.0	41.5, 46.5	0.009
	Never worked	205	45.1	41.8, 48.5	0.236
Other	127	52.4	46.5, 58.2	0.095	

*unweighted n. **Multivariate GLM applying sampling weighting variables. †P for linear trend.

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1. Armstrong J, Sherriff A, Wrieden WL, et al. (2009) *Deriving and Interpreting Dietary Patterns in the Scottish Diet: Further Analysis of the Scottish Health Survey and the Expenditure and Food Survey*. Food Standards Agency Scotland.
2. The Scottish Government (2016) *Revised Dietary Goals for Scotland – March 2016*.