## **Supplementary table 1.** Interactions between strata of population subgroups and Variety and Frequency in associations with objectively measured MVPA

		Frequency				Variety			
		β Coef.	95% CI		p - value	β Coef.	95% CI		p - value
MVPA	<b>Sex</b> (boys = 0)	0.013	-0.016	0.042	0.374	-0.003	-0.032	0.026	0.825
	Activity status (Not meeting government PA guidelines = 0) Parent/guardian education level (GCSE or lower=0)	0.002	-0.019	0.022	0.851	0.002	-0.019	0.023	0.851
	A-level or lower vocational	0.006	-0.021	0.033	0.656	0.018	-0.012	0.049	0.230
	University degree or higher	0.025	-0.016	0.066	0.236	0.016	-0.022	0.055	0.402

Associations were tested using multilevel linear regression.

Variety and Frequency were transformed to z scores so effect sizes are directly comparable.

Moderate-to-vigorous intensity physical activity (MVPA) was log transformed for analyses

Models were adjusted for age, sex, parental education level and age-standardised BMI.

Beta Coeffeicient (B coef.) and 95% confidence intervals (95% CI) <0 indicates that the effect size of the comparison group is smaller than the effect size of reference group whereas B coef. and 95% CI >0 indicates that the effect size of the comparison group is large than the effect size of the reference group

P – value for significance of the effect size differing between the reference and comparison groups.

GCSE; General Certificate of Secondary Education