Supplementary Table

Supplementary Table 1: Comparison of complete case analysis in the mediation analysis and multiple imputation by chained equations analysis for logistic regression analysis of the association between social class of the father at the birth of the participant and multimorbidity; adjusted by gender, adjusted by educational attainment and gender, and adjusted by educational attainment, gender, cognition at age 7 and school type

Social class of the father at birth of the participant	Adjusted by gender*				Adjusted by educational attainment and gender				Adjusted by educational attainment, gender, cognition at age 7 and school type			
	CCA mediation model (n=6,561)**		CCA original data (n=7,184)***		CCA mediation model (n=6,561)***		MICE***		CCA mediation model (n=6,561)***		MICE***	
	Odds Ratio	95% CI	Odds Ratio	95% CI	Odds Ratio	95% CI	Odds Ratio	95% CI	Odds Ratio	95% CI	Odds Ratio	95% CI
I/II (Professional/ Managerial)	0.62	0.39-1.00	0.62	0.41-0.96	0.74	0.45-1.21	0.78	0.50-1.21	0.73	0.44-1.20	0.77	0.49-1.21
III (Skilled non-manual)	0.95	0.66-1.38	0.99	0.70-1.40	1.03	0.71-1.50	1.09	0.77-1.55	1.03	0.71-1.50	1.09	0.77-1.55
III (Skilled manual)	1 (reference group)											
IV (Partly skilled)	1.18	0.85-1.64	1.25	0.92-1.70	1.08	0.77-1.50	1.13	0.83-1.54	1.07	0.77-1.49	1.12	0.82-1.53
V (Unskilled)	1.43	1.06-1.94	1.42	1.07-1.90	1.26	0.93-1.71	1.24	0.93-1.66	1.24	0.91-1.70	1.21	0.90-1.62
Unemployed/ unknown/ disabled/ dead	1.85	1.19-2.88	1.72	1.14-2.60	1.79	1.15-2.79	1.68	1.11-2.54	1.74	1.11-2.72	1.63	1.07-2.47

Abbreviations: CCA, complete case analysis; MICE, multiple imputation by chained equations; 95% CI, 95% confidence interval; ACONF, Aberdeen Children of the 1950s

*As there was no missing data for gender, MICE was not required for imputing missing values and so CCA including all the original data is presented instead **Model statistically significant, p=0.002 ***Models statistically significant, p<0.001