

Supplementary file 7. Full models for nutritional outcomes with interaction effects included

Full models for nutritional outcomes including interaction term between SFS-mandated school status and source of school lunch (100% school-provided)

Table 1. Outcome: Free sugar intake; SFS-mandated status – lunch source interaction included as coefficient

Coefficient	Free sugar (g) Lunch	Free sugar (g) School day	Free sugar (g) 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-2.79 (-5.27- -0.30) p = 0.028	0.82 (-3.21-4.85) p = 0.690	2.83 (-4.89-10.56) p = 0.472
Source of Lunch: 100% School Provided	-3.55 (-5.53- -1.57) p < .001	-1.64 (-4.66-1.39) p = 0.289	5.07 (-0.62-10.77) p = 0.081
SFS Mandated and School Lunch Int	0.007 (-3.52-3.53) p = 0.997	-1.35 (-6.75-4.06) p = 0.626	-4.06 (-14.23-6.11) p = 0.434
Sex: Male	-0.21 (-2.00-1.59) p = 0.823	0.38 (-2.39-3.16) p = 0.786	4.16 (-1.26-9.57) p = 0.132
Sex: Other	0.36 (-4.63-5.36) p = 0.887	-0.49 (-8.16-7.17) p = 0.899	-12.90 (-27.49-1.69) p = 0.083
Age	-1.13 (-3.67-1.42) p = 0.386	0.42 (-3.53-4.36) p = 0.836	0.78 (-6.88-8.44) p = 0.842
Ethnicity: Asian/Asian British	-1.69 (-4.12-0.74) p = 0.173	-3.88 (-7.69- -0.07) p = 0.046	-11.37 (-18.84- -3.91) p = 0.003
Ethnicity: Black/African/Caribbean/Black British	1.71 (-2.31-5.73) p = 0.404	7.30 (1.07-13.53) p = 0.022	4.56 (-7.45-16.57) p = 0.456
Ethnicity: Mixed/Multiple	-3.04 (-6.81-0.73) p = 0.114	-4.12 (-9.92-1.67) p = 0.163	-11.26 (-22.61-0.09) p = 0.052
Ethnicity: Other	2.57 (-2.35-7.50) p = 0.305	5.50 (-1.94-12.93) p = 0.147	4.54 (-9.69-18.77) p = 0.532
IMD Quintile: 2	2.29 (-0.53-5.12) p = 0.111	2.51 (-1.84-6.86) p = 0.258	3.32 (-5.11-11.75) p = 0.440
IMD Quintile: 3	1.41 (-1.47-4.30) p = 0.337	1.73 (-2.76-6.23) p = 0.450	1.75 (-6.98-10.48) p = 0.694
IMD Quintile: 4	0.87 (-2.19-3.93) p = 0.579	-0.19 (-4.95-4.58) p = 0.939	2.20 (-7.09-11.48) p = 0.643
IMD Quintile: 5	0.32 (-2.73-3.37) p = 0.837	0.84 (-3.93-5.62) p = 0.729	1.70 (-7.66-11.06) p = 0.722
Percent FSM	0.07 (-0.04-0.18) p = 0.205	-0.010 (-0.19-0.17) p = 0.915	0.15 (-0.21-0.51) p = 0.420
School Level IDACI	0.12 (0.01-0.23) p = 0.026	0.27 (0.08-0.45) p = 0.004	0.35 (-0.02-0.72) p = 0.062
Sixth Form: Yes	-3.18 (-5.14- -1.21) p = 0.002	-1.69 (-5.10-1.72) p = 0.332	-2.08 (-8.94-4.77) p = 0.551
Provision: External	1.12 (-0.67-2.91) p = 0.222	1.57 (-1.53-4.66) p = 0.321	3.91 (-2.27-10.09) p = 0.215
Religious: Secular	5.01 (1.86-8.16) p = 0.002	5.69 (0.15-11.23) p = 0.044	2.96 (-8.24-14.17) p = 0.604
Year collected: 2020/2021	-3.51 (-6.78- -0.24) p = 0.035	-0.97 (-6.62-4.69) p = 0.737	-2.77 (-14.06-8.52) p = 0.631
Year collected: 2021/2022	0.49 (-1.52-2.51) p = 0.631	1.31 (-2.16-4.78) p = 0.460	-0.05 (-6.96-6.85) p = 0.988
Year: 9	0.88 (-4.61-6.37) p = 0.753	-3.71 (-12.18-4.75) p = 0.390	-2.76 (-19.26-13.73) p = 0.743
Year: 10	0.94 (-6.98-8.86) p = 0.815	-6.06 (-18.32-6.19) p = 0.332	-5.55 (-29.32-18.22) p = 0.647

Table 2. Outcome: Percentage Total Energy Intake (TEI) from free sugar; SFS-mandated status – lunch source interaction included as coefficient

Coefficient	%TEI from free sugar Lunch	%TEI from free sugar School day	%TEI from free sugar 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-0.06 (-2.24-2.12) p = 0.958	0.64 (-1.36-2.64) p = 0.531	1.32 (-0.13-2.78) p = 0.075
Source of Lunch: 100% School Provided	1.27 (-0.17-2.72) p = 0.083	0.63 (-0.71-1.96) p = 0.356	0.65 (-0.26-1.55) p = 0.160
SFS Mandated and School Lunch Int	-1.86 (-4.44-0.72) p = 0.159	-2.16 (-4.55-0.22) p = 0.076	-1.34 (-2.96-0.27) p = 0.104
Sex: Male	-1.67 (-2.97- -0.37) p = 0.012	-1.33 (-2.53- -0.12) p = 0.031	-0.63 (-1.47-0.21) p = 0.143
Sex: Other	0.35 (-3.20-3.89) p = 0.848	0.10 (-3.19-3.38) p = 0.954	-1.41 (-3.65-0.84) p = 0.219
Age	-1.12 (-3.00-0.75) p = 0.239	-0.50 (-2.22-1.23) p = 0.572	-0.17 (-1.38-1.04) p = 0.780
Ethnicity: Asian/Asian British	0.12 (-1.67-1.90) p = 0.899	-0.16 (-1.82-1.51) p = 0.853	-1.60 (-2.78- -0.43) p = 0.008
Ethnicity: Black/African/Caribbean/Black British	0.51 (-2.38-3.40) p = 0.730	3.99 (1.30-6.68) p = 0.004	0.20 (-1.67-2.06) p = 0.834
Ethnicity: Mixed/Multiple	-0.79 (-3.46-1.89) p = 0.564	1.40 (-1.08-3.89) p = 0.268	-1.16 (-2.91-0.59) p = 0.193
Ethnicity: Other	-1.82 (-5.34-1.69) p = 0.310	-1.74 (-4.94-1.46) p = 0.287	-0.76 (-2.96-1.44) p = 0.499
IMD Quintile: 2	-0.91 (-2.94-1.12) p = 0.378	0.04 (-1.84-1.92) p = 0.967	-0.28 (-1.59-1.03) p = 0.676
IMD Quintile: 3	-0.07 (-2.18-2.03) p = 0.945	0.87 (-1.09-2.83) p = 0.387	0.08 (-1.29-1.45) p = 0.908
IMD Quintile: 4	-0.32 (-2.56-1.91) p = 0.776	0.40 (-1.68-2.47) p = 0.709	0.48 (-0.98-1.94) p = 0.519
IMD Quintile: 5	-1.17 (-3.41-1.08) p = 0.308	0.11 (-1.99-2.20) p = 0.921	-0.78 (-2.25-0.70) p = 0.302
Percent FSM	0.02 (-0.08-0.12) p = 0.733	0.03 (-0.07-0.12) p = 0.569	0.03 (-0.04-0.10) p = 0.419
School Level IDACI	0.08 (-0.03-0.18) p = 0.144	0.11 (0.01-0.21) p = 0.025	0.05 (-0.02-0.12) p = 0.181
Sixth Form: Yes	-1.84 (-3.79-0.11) p = 0.065	-1.57 (-3.38-0.25) p = 0.090	-0.32 (-1.71-1.07) p = 0.649
Provision: External	0.79 (-0.98-2.55) p = 0.381	0.43 (-1.20-2.07) p = 0.602	0.24 (-1.01-1.48) p = 0.708
Religious: Secular	3.36 (0.15-6.57) p = 0.040	2.71 (-0.28-5.70) p = 0.076	0.53 (-1.77-2.83) p = 0.653
Year collected: 2020/2021	-1.03 (-4.24-2.17) p = 0.527	0.23 (-2.75-3.21) p = 0.879	0.84 (-1.43-3.11) p = 0.468
Year collected: 2021/2022	1.59 (-0.36-3.55) p = 0.110	1.04 (-0.78-2.85) p = 0.264	0.74 (-0.63-2.12) p = 0.289
Year: 9	1.90 (-2.11-5.90) p = 0.354	0.94 (-2.75-4.63) p = 0.617	0.12 (-2.47-2.72) p = 0.925
Year: 10	2.02 (-3.78-7.83) p = 0.494	-0.15 (-5.50-5.20) p = 0.956	-0.74 (-4.48-3.01) p = 0.700

Table 3. Outcome: Total Energy Intake (TEI); SFS-mandated status – lunch source interaction included as coefficient

Coefficient	TEI (kcal Lunch)	TEI (kcal) School day	TEI (kcal) 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-78.72 (-121.25- -36.19) p < .001	-48.93 (-105.16-7.30) p = 0.088	-80.05 (-194.83-34.73) p = 0.172
Source of Lunch: 100% School Provided	-147.64 (-180.81- -114.48) p < .001	-80.72 (-125.70- -35.73) p < .001	12.01 (-71.59-95.61) p = 0.778
SFS Mandated and School Lunch Int	52.13 (-7.00-111.25) p = 0.084	38.33 (-42.05-118.71) p = 0.350	3.25 (-146.06-152.56) p = 0.966
Sex: Male	41.67 (11.75-71.58) p = 0.006	61.37 (20.17-102.56) p = 0.004	208.72 (130.15-287.29) p < .001
Sex: Other	15.53 (-67.45-98.52) p = 0.714	-11.24 (-126.12-103.65) p = 0.848	-184.26 (-395.52-26.99) p = 0.087
Age	24.11 (-18.45-66.67) p = 0.267	47.84 (-10.35-106.02) p = 0.107	67.97 (-43.38-179.31) p = 0.232
Ethnicity: Asian/Asian British	3.87 (-36.73-44.47) p = 0.852	-17.36 (-73.49-38.77) p = 0.544	-4.71 (-113.12-103.70) p = 0.932
Ethnicity: Black/African/Caribbean/Black British	52.91 (-14.00-119.83) p = 0.121	59.74 (-33.11-152.59) p = 0.207	103.94 (-70.25-278.14) p = 0.242
Ethnicity: Mixed/Multiple	-48.76 (-111.32-13.79) p = 0.127	-105.87 (-192.61- -19.12) p = 0.017	-79.05 (-243.38-85.28) p = 0.346
Ethnicity: Other	182.59 (100.72-264.47) p < .001	223.96 (112.80-335.12) p < .001	145.13 (-61.23-351.49) p = 0.168
IMD Quintile: 2	50.40 (3.40-97.40) p = 0.036	42.57 (-22.22-107.36) p = 0.198	53.54 (-68.82-175.90) p = 0.391
IMD Quintile: 3	33.69 (-14.49-81.87) p = 0.171	17.73 (-48.86-84.32) p = 0.602	2.84 (-124.02-129.71) p = 0.965
IMD Quintile: 4	31.86 (-19.26-82.98) p = 0.222	45.31 (-25.20-115.81) p = 0.208	55.19 (-79.68-190.05) p = 0.423
IMD Quintile: 5	44.37 (-6.66-95.41) p = 0.088	39.63 (-30.83-110.08) p = 0.270	75.11 (-61.02-211.24) p = 0.280
Percent FSM	-0.72 (-2.58-1.14) p = 0.447	-1.00 (-3.49-1.49) p = 0.433	-0.71 (-6.08-4.65) p = 0.795
School Level IDACI	2.06 (0.20-3.92) p = 0.030	2.24 (-0.23-4.70) p = 0.075	3.50 (-1.98-8.98) p = 0.211
Sixth Form: Yes	-45.70 (-79.99- -11.42) p = 0.009	-20.21 (-65.62-25.21) p = 0.383	-9.04 (-111.47-93.40) p = 0.863
Provision: External	3.82 (-27.44-35.09) p = 0.811	33.61 (-7.74-74.96) p = 0.111	40.36 (-51.98-132.69) p = 0.392
Religious: Secular	75.80 (20.49-131.10) p = 0.007	113.92 (41.02-186.82) p = 0.002	94.69 (-73.31-262.69) p = 0.269
Year collected: 2020/2021	-68.54 (-125.53- -11.56) p = 0.018	-40.06 (-115.84-35.71) p = 0.300	-75.62 (-244.29-93.05) p = 0.380
Year collected: 2021/2022	-44.75 (-79.86- -9.63) p = 0.012	-42.59 (-89.20-4.03) p = 0.073	-70.71 (-173.78-32.36) p = 0.179
Year: 9	-91.19 (-182.84-0.46) p = 0.051	-156.09 (-281.38- -30.80) p = 0.015	-160.25 (-399.87-79.37) p = 0.190
Year: 10	-99.81 (-232.10-32.48) p = 0.139	-177.49 (-358.55-3.56) p = 0.055	-184.10 (-529.53-161.33) p = 0.296

Table 4. Outcome: Fat intake; SFS-mandated status – lunch source interaction included as coefficient

Coefficient	Fat intake (g) Lunch	Fat intake (g) School day	Fat intake (g) 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-3.38 (-5.43- -1.32) p = 0.001	-2.13 (-4.82-0.55) p = 0.119	-2.72 (-7.73-2.29) p = 0.287
Source of Lunch: 100% School Provided	-5.89 (-7.53- -4.24) p < .001	-3.23 (-5.38- -1.08) p = 0.003	-0.20 (-4.03-3.63) p = 0.917
SFS Mandated and School Lunch Int	2.62 (-0.32-5.56) p = 0.081	1.67 (-2.17-5.50) p = 0.394	-0.62 (-7.46-6.22) p = 0.859
Sex: Male	1.63 (0.16-3.10) p = 0.030	2.30 (0.35-4.24) p = 0.021	7.35 (3.85-10.85) p < .001
Sex: Other	-0.20 (-4.30-3.89) p = 0.922	-1.17 (-6.59-4.25) p = 0.673	-9.58 (-19.02- -0.15) p = 0.046
Age	1.08 (-1.01-3.16) p = 0.312	2.58 (-0.17-5.33) p = 0.066	3.19 (-1.76-8.14) p = 0.206
Ethnicity: Asian/Asian British	0.16 (-1.83-2.15) p = 0.874	-0.57 (-3.22-2.08) p = 0.674	0.34 (-4.45-5.14) p = 0.889
Ethnicity: Black/African/Caribbean/Black British	2.11 (-1.19-5.41) p = 0.210	2.19 (-2.20-6.57) p = 0.328	1.28 (-6.49-9.06) p = 0.746
Ethnicity: Mixed/Multiple	-2.07 (-5.15-1.02) p = 0.189	-4.64 (-8.73- -0.55) p = 0.026	-2.96 (-10.30-4.37) p = 0.428
Ethnicity: Other	8.91 (4.87-12.96) p < .001	11.77 (6.52-17.02) p < .001	9.80 (0.57-19.03) p = 0.037
IMD Quintile: 2	3.00 (0.68-5.31) p = 0.011	2.11 (-0.95-5.17) p = 0.176	2.76 (-2.70-8.22) p = 0.321
IMD Quintile: 3	1.81 (-0.56-4.18) p = 0.134	1.04 (-2.10-4.19) p = 0.516	-1.44 (-7.09-4.21) p = 0.617
IMD Quintile: 4	2.11 (-0.40-4.62) p = 0.099	3.55 (0.22-6.88) p = 0.037	1.90 (-4.10-7.90) p = 0.535
IMD Quintile: 5	2.63 (0.13-5.13) p = 0.039	2.67 (-0.66-6.00) p = 0.116	2.32 (-3.73-8.37) p = 0.452
Percent FSM	-0.03 (-0.12-0.06) p = 0.556	-0.02 (-0.14-0.10) p = 0.731	0.005 (-0.23-0.24) p = 0.965
School Level IDACI	0.09 (0.003-0.18) p = 0.042	0.08 (-0.04-0.20) p = 0.185	0.10 (-0.13-0.34) p = 0.383
Sixth Form: Yes	-1.69 (-3.30- -0.07) p = 0.040	-0.55 (-2.72-1.61) p = 0.617	-0.80 (-5.15-3.55) p = 0.718
Provision: External	0.23 (-1.24-1.71) p = 0.756	1.47 (-0.50-3.45) p = 0.144	1.79 (-2.14-5.72) p = 0.372
Religious: Secular	3.63 (1.03-6.23) p = 0.006	5.33 (1.84-8.82) p = 0.003	5.04 (-2.09-12.17) p = 0.166
Year collected: 2020/2021	-2.81 (-5.50- -0.11) p = 0.041	-1.47 (-5.08-2.15) p = 0.427	-1.38 (-8.57-5.80) p = 0.706
Year collected: 2021/2022	-2.73 (-4.40- -1.07) p = 0.001	-2.67 (-4.89- -0.44) p = 0.019	-2.92 (-7.33-1.48) p = 0.193
Year: 9	-3.48 (-7.98-1.02) p = 0.130	-6.99 (-12.91- -1.07) p = 0.021	-6.87 (-17.53-3.79) p = 0.206
Year: 10	-3.61 (-10.10-2.88) p = 0.276	-7.91 (-16.47-0.65) p = 0.070	-6.83 (-22.18-8.52) p = 0.383

Table 5. Outcome: Fibre intake; SFS-mandated status – lunch source interaction included as coefficient

Coefficient	Fibre intake (g) Lunch	Fibre intake (g) School day	Fibre intake (g) 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-0.46 (-0.97-0.04) p = 0.074	-0.42 (-0.99-0.15) p = 0.150	-1.20 (-2.48-0.09) p = 0.069
Source of Lunch: 100% School Provided	-1.51 (-1.85- -1.18) p < .001	-1.02 (-1.43- -0.61) p < .001	-0.30 (-1.10-0.50) p = 0.465
SFS Mandated and School Lunch Int	0.46 (-0.14-1.05) p = 0.131	0.56 (-0.17-1.30) p = 0.134	0.57 (-0.86-2.00) p = 0.434
Sex: Male	0.17 (-0.13-0.47) p = 0.276	0.29 (-0.08-0.66) p = 0.128	1.14 (0.39-1.89) p = 0.003
Sex: Other	-0.15 (-0.96-0.67) p = 0.727	-0.38 (-1.41-0.64) p = 0.466	-1.54 (-3.53-0.45) p = 0.130
Age	0.21 (-0.22-0.64) p = 0.344	0.44 (-0.09-0.97) p = 0.105	0.45 (-0.62-1.52) p = 0.410
Ethnicity: Asian/Asian British	0.07 (-0.35-0.48) p = 0.757	-0.18 (-0.69-0.34) p = 0.497	-0.05 (-1.10-0.99) p = 0.923
Ethnicity: Black/African/Caribbean/Black British	0.16 (-0.50-0.83) p = 0.631	-0.08 (-0.92-0.75) p = 0.847	-0.41 (-2.06-1.24) p = 0.626
Ethnicity: Mixed/Multiple	-0.27 (-0.89-0.34) p = 0.387	-0.73 (-1.50-0.05) p = 0.066	-0.57 (-2.12-0.98) p = 0.468
Ethnicity: Other	1.40 (0.59-2.22) p = 0.001	1.24 (0.25-2.24) p = 0.015	-0.37 (-2.32-1.58) p = 0.713
IMD Quintile: 2	0.21 (-0.26-0.68) p = 0.382	0.21 (-0.37-0.80) p = 0.477	0.44 (-0.72-1.60) p = 0.457
IMD Quintile: 3	0.09 (-0.40-0.57) p = 0.731	0.03 (-0.58-0.63) p = 0.932	0.38 (-0.83-1.60) p = 0.535
IMD Quintile: 4	0.19 (-0.32-0.71) p = 0.465	0.48 (-0.16-1.12) p = 0.142	0.94 (-0.35-2.23) p = 0.152
IMD Quintile: 5	0.29 (-0.23-0.81) p = 0.272	0.40 (-0.25-1.04) p = 0.227	1.54 (0.23-2.85) p = 0.021
Percent FSM	-0.02 (-0.04-0.002) p = 0.075	-0.03 (-0.05-0.0003) p = 0.053	-0.04 (-0.10-0.03) p = 0.257
School Level IDACI	0.02 (-0.008-0.04) p = 0.188	0.02 (-0.010-0.04) p = 0.212	0.03 (-0.03-0.09) p = 0.366
Sixth Form: Yes	0.15 (-0.30-0.61) p = 0.515	0.41 (-0.09-0.91) p = 0.105	0.65 (-0.58-1.87) p = 0.302
Provision: External	0.003 (-0.41-0.41) p = 0.987	0.29 (-0.16-0.74) p = 0.212	0.23 (-0.87-1.33) p = 0.682
Religious: Secular	0.26 (-0.49-1.01) p = 0.489	0.91 (0.10-1.73) p = 0.028	0.77 (-1.26-2.81) p = 0.456
Year collected: 2020/2021	0.20 (-0.55-0.95) p = 0.603	0.22 (-0.60-1.05) p = 0.597	-0.09 (-2.10-1.91) p = 0.927
Year collected: 2021/2022	-0.44 (-0.90-0.01) p = 0.057	-0.51 (-1.02- -0.008) p = 0.047	-1.04 (-2.25-0.18) p = 0.094
Year: 9	-0.83 (-1.76-0.09) p = 0.078	-1.43 (-2.57- -0.29) p = 0.014	-1.29 (-3.59-1.01) p = 0.271
Year: 10	-0.98 (-2.32-0.36) p = 0.153	-1.60 (-3.26-0.05) p = 0.057	-1.37 (-4.69-1.95) p = 0.418

Table 6. Outcome: Fruit and vegetable (F&V) intake; SFS-mandated status – lunch source interaction included as coefficient

Coefficient	F&V portions Lunch	F&V portions School day	F&V portions 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-0.30 (-0.45- -0.15) p < .001	-0.27 (-0.43- -0.11) p = 0.001	-0.47 (-0.80- -0.13) p = 0.006
Source of Lunch: 100% School Provided	-0.30 (-0.41- -0.20) p < .001	-0.24 (-0.37- -0.12) p < .001	-0.08 (-0.29-0.14) p = 0.467
SFS Mandated and School Lunch Int	0.15 (-0.04-0.34) p = 0.124	0.15 (-0.08-0.37) p = 0.198	0.28 (-0.11-0.66) p = 0.158
Sex: Male	-0.04 (-0.14-0.05) p = 0.391	-0.03 (-0.14-0.09) p = 0.633	-0.04 (-0.23-0.16) p = 0.729
Sex: Other	-0.15 (-0.42-0.11) p = 0.250	-0.26 (-0.57-0.05) p = 0.104	-0.47 (-0.99-0.06) p = 0.083
Age	0.05 (-0.08-0.19) p = 0.447	0.05 (-0.12-0.21) p = 0.580	0.15 (-0.14-0.43) p = 0.309
Ethnicity: Asian/Asian British	-0.04 (-0.18-0.09) p = 0.516	-0.07 (-0.23-0.08) p = 0.348	-0.11 (-0.38-0.17) p = 0.448
Ethnicity: Black/African/Caribbean/Black British	0.02 (-0.19-0.24) p = 0.832	-0.009 (-0.26-0.25) p = 0.944	0.04 (-0.39-0.48) p = 0.844
Ethnicity: Mixed/Multiple	0.02 (-0.18-0.22) p = 0.870	-0.05 (-0.29-0.18) p = 0.657	-0.11 (-0.52-0.30) p = 0.589
Ethnicity: Other	0.16 (-0.10-0.42) p = 0.232	0.18 (-0.13-0.48) p = 0.256	-0.14 (-0.66-0.38) p = 0.597
IMD Quintile: 2	-0.010 (-0.16-0.14) p = 0.898	-0.02 (-0.20-0.16) p = 0.811	0.12 (-0.18-0.43) p = 0.428
IMD Quintile: 3	0.0008 (-0.15-0.16) p = 0.992	-0.0004 (-0.18-0.18) p = 0.996	0.25 (-0.07-0.57) p = 0.126
IMD Quintile: 4	-0.010 (-0.17-0.16) p = 0.909	-0.01 (-0.21-0.18) p = 0.908	0.15 (-0.19-0.49) p = 0.393
IMD Quintile: 5	-0.02 (-0.18-0.15) p = 0.848	0.03 (-0.16-0.23) p = 0.748	0.26 (-0.09-0.61) p = 0.143
Percent FSM	-0.01 (-0.02- -0.004) p = 0.001	-0.01 (-0.02- -0.007) p < .001	-0.03 (-0.04- -0.009) p = 0.002
School Level IDACI	0.005 (-0.002-0.01) p = 0.168	0.006 (-0.001-0.01) p = 0.112	0.009 (-0.007-0.03) p = 0.284
Sixth Form: Yes	0.03 (-0.10-0.16) p = 0.696	0.07 (-0.06-0.21) p = 0.278	0.11 (-0.20-0.43) p = 0.470
Provision: External	0.06 (-0.06-0.18) p = 0.299	0.11 (-0.01-0.23) p = 0.081	0.08 (-0.20-0.36) p = 0.556
Religious: Secular	0.11 (-0.10-0.32) p = 0.310	0.23 (0.01-0.45) p = 0.039	0.32 (-0.19-0.84) p = 0.220
Year collected: 2020/2021	0.03 (-0.19-0.24) p = 0.805	0.03 (-0.19-0.25) p = 0.789	0.08 (-0.43-0.59) p = 0.762
Year collected: 2021/2022	0.11 (-0.02-0.24) p = 0.097	0.11 (-0.03-0.24) p = 0.130	0.05 (-0.26-0.36) p = 0.759
Year: 9	-0.13 (-0.42-0.17) p = 0.392	-0.17 (-0.52-0.17) p = 0.321	-0.39 (-1.00-0.22) p = 0.211
Year: 10	-0.23 (-0.66-0.20) p = 0.294	-0.21 (-0.71-0.29) p = 0.417	-0.54 (-1.41-0.34) p = 0.231

Table 7. Outcome: number of sugar sweetened beverages (SSB) consumed (Poisson models); SFS-mandated status – lunch source interaction included as coefficient

Coefficient	SSB items Incidence Rate Ratio Lunch	SSB items Incidence Rate Ratio School day	SSB items Incidence Rate Ratio 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	1.27 (0.90-1.79) p = 0.174	1.20 (0.82-1.75) p = 0.344	1.41 (1.07-1.87) p = 0.016
Source of Lunch: 100% School Provided	0.99 (0.73-1.35) p = 0.956	1.07 (0.81-1.41) p = 0.637	1.33 (1.10-1.60) p = 0.003
SFS Mandated and School Lunch Int	0.72 (0.43-1.22) p = 0.221	0.92 (0.57-1.48) p = 0.743	0.81 (0.59-1.10) p = 0.178
Sex: Male	0.88 (0.68-1.14) p = 0.344	0.94 (0.73-1.21) p = 0.636	0.93 (0.78-1.10) p = 0.378
Sex: Other	1.11 (0.56-2.20) p = 0.774	1.20 (0.62-2.30) p = 0.589	0.92 (0.58-1.45) p = 0.724
Age	1.05 (0.72-1.51) p = 0.804	0.92 (0.64-1.30) p = 0.627	0.85 (0.67-1.08) p = 0.191
Ethnicity: Asian/Asian British	0.67 (0.44-1.02) p = 0.059	0.77 (0.53-1.12) p = 0.171	0.78 (0.61-1.00) p = 0.051
Ethnicity: Black/African/Caribbean/Black British	0.92 (0.52-1.63) p = 0.774	1.07 (0.63-1.81) p = 0.796	0.87 (0.60-1.26) p = 0.457
Ethnicity: Mixed/Multiple	0.71 (0.40-1.29) p = 0.266	0.85 (0.50-1.43) p = 0.536	0.84 (0.59-1.20) p = 0.343
Ethnicity: Other	1.08 (0.59-1.96) p = 0.807	0.95 (0.51-1.77) p = 0.862	0.74 (0.46-1.17) p = 0.196
IMD Quintile: 2	0.84 (0.58-1.23) p = 0.371	0.95 (0.66-1.37) p = 0.803	1.02 (0.80-1.32) p = 0.851
IMD Quintile: 3	0.72 (0.48-1.08) p = 0.113	0.80 (0.54-1.18) p = 0.255	0.93 (0.71-1.21) p = 0.578
IMD Quintile: 4	0.74 (0.48-1.15) p = 0.181	0.80 (0.53-1.23) p = 0.310	1.03 (0.78-1.37) p = 0.832
IMD Quintile: 5	0.57 (0.35-0.91) p = 0.019	0.73 (0.47-1.12) p = 0.151	0.74 (0.55-1.00) p = 0.048
Percent FSM	1.00 (0.98-1.02) p = 0.925	1.00 (0.98-1.02) p = 0.797	1.00 (0.99-1.01) p = 0.884
School Level IDACI	1.01 (0.99-1.03) p = 0.198	1.01 (1.00-1.03) p = 0.135	1.01 (1.00-1.03) p = 0.064
Sixth Form: Yes	1.15 (0.86-1.55) p = 0.347	1.21 (0.86-1.70) p = 0.273	1.15 (0.88-1.51) p = 0.313
Provision: External	1.06 (0.81-1.40) p = 0.662	0.92 (0.68-1.25) p = 0.600	0.96 (0.75-1.22) p = 0.743
Religious: Secular	1.94 (1.02-3.68) p = 0.042	2.45 (1.25-4.79) p = 0.009	1.22 (0.77-1.92) p = 0.402
Year collected: 2020/2021	0.84 (0.51-1.39) p = 0.506	0.90 (0.51-1.59) p = 0.711	1.18 (0.76-1.84) p = 0.453
Year collected: 2021/2022	0.65 (0.49-0.87) p = 0.004	0.70 (0.50-0.97) p = 0.031	0.86 (0.66-1.13) p = 0.278
Year: 9	0.71 (0.32-1.56) p = 0.391	0.87 (0.41-1.83) p = 0.706	1.17 (0.70-1.95) p = 0.557
Year: 10	0.62 (0.20-1.97) p = 0.422	0.83 (0.28-2.47) p = 0.731	1.07 (0.50-2.27) p = 0.861

Table 8. Outcome: number of high fat, sugar and salt (HFSS) items consumed (Poisson models); SFS-mandated status – lunch source interaction included as coefficient

Coefficient	HFSS items Incidence Rate Ratio Lunch	HFSS items Incidence Rate Ratio School day	HFSS items Incidence Rate Ratio 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	0.90 (0.80-1.02) p = 0.088	0.97 (0.88-1.07) p = 0.596	1.00 (0.92-1.09) p = 0.994
Source of Lunch: 100% School Provided	0.54 (0.48-0.60) p < .001	0.70 (0.65-0.77) p < .001	0.91 (0.85-0.97) p = 0.004
SFS Mandated and School Lunch Int	1.05 (0.87-1.28) p = 0.588	0.98 (0.84-1.15) p = 0.832	0.97 (0.86-1.09) p = 0.581
Sex: Male	0.87 (0.80-0.95) p = 0.003	0.89 (0.83-0.96) p = 0.002	0.93 (0.88-0.99) p = 0.020
Sex: Other	1.02 (0.81-1.29) p = 0.856	0.91 (0.74-1.11) p = 0.355	0.79 (0.67-0.93) p = 0.004
Age	0.97 (0.86-1.10) p = 0.672	1.01 (0.91-1.12) p = 0.889	0.99 (0.91-1.07) p = 0.740
Ethnicity: Asian/Asian British	0.83 (0.74-0.94) p = 0.004	0.84 (0.76-0.93) p = 0.001	0.88 (0.81-0.96) p = 0.002
Ethnicity: Black/African/Caribbean/Black British	0.78 (0.62-0.99) p = 0.040	0.92 (0.77-1.09) p = 0.327	0.91 (0.80-1.04) p = 0.171
Ethnicity: Mixed/Multiple	0.87 (0.72-1.06) p = 0.161	0.88 (0.75-1.03) p = 0.100	0.87 (0.77-0.99) p = 0.032
Ethnicity: Other	1.14 (0.92-1.42) p = 0.233	1.05 (0.87-1.27) p = 0.632	1.04 (0.89-1.20) p = 0.628
IMD Quintile: 2	1.03 (0.90-1.19) p = 0.647	1.07 (0.95-1.20) p = 0.255	1.04 (0.95-1.14) p = 0.383
IMD Quintile: 3	1.07 (0.93-1.23) p = 0.362	1.10 (0.97-1.24) p = 0.123	1.06 (0.97-1.17) p = 0.203
IMD Quintile: 4	1.16 (1.00-1.34) p = 0.050	1.19 (1.05-1.35) p = 0.006	1.13 (1.03-1.25) p = 0.011
IMD Quintile: 5	1.13 (0.97-1.31) p = 0.120	1.18 (1.04-1.34) p = 0.009	1.14 (1.03-1.26) p = 0.008
Percent FSM	0.99 (0.99-1.00) p = 0.014	1.00 (0.99-1.00) p = 0.133	1.00 (1.00-1.00) p = 0.728
School Level IDACI	1.01 (1.00-1.02) p < .001	1.01 (1.00-1.01) p = 0.017	1.00 (1.00-1.01) p = 0.179
Sixth Form: Yes	0.97 (0.88-1.07) p = 0.582	1.03 (0.95-1.11) p = 0.529	1.01 (0.94-1.09) p = 0.758
Provision: External	1.04 (0.95-1.14) p = 0.389	1.02 (0.95-1.11) p = 0.546	1.02 (0.95-1.09) p = 0.656
Religious: Secular	1.31 (1.09-1.56) p = 0.004	1.18 (1.02-1.36) p = 0.024	1.00 (0.88-1.13) p = 0.971
Year collected: 2020/2021	0.86 (0.72-1.01) p = 0.070	0.95 (0.83-1.09) p = 0.501	0.99 (0.87-1.12) p = 0.837
Year collected: 2021/2022	0.88 (0.80-0.98) p = 0.019	0.88 (0.81-0.96) p = 0.005	0.93 (0.86-1.00) p = 0.058
Year: 9	0.95 (0.73-1.25) p = 0.727	0.90 (0.72-1.12) p = 0.332	0.97 (0.81-1.15) p = 0.692
Year: 10	0.96 (0.65-1.43) p = 0.856	0.92 (0.66-1.26) p = 0.589	0.98 (0.76-1.27) p = 0.891

Table 9. Outcome: number of confectionery items consumed (Poisson models); SFS-mandated status – lunch source interaction included as coefficient

Coefficient	Confectionery items Incidence Rate Ratio Lunch	Confectionery items Incidence Rate Ratio School day	Confectionery items Incidence Rate Ratio 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	0.94 (0.72-1.24) p = 0.670	1.21 (0.98-1.48) p = 0.074	1.09 (0.92-1.29) p = 0.322
Source of Lunch: 100% School Provided	0.14 (0.09-0.22) p < .001	0.33 (0.26-0.43) p < .001	0.70 (0.60-0.82) p < .001
SFS Mandated and School Lunch Int	1.25 (0.60-2.59) p = 0.547	1.03 (0.68-1.57) p = 0.880	0.88 (0.66-1.17) p = 0.366
Sex: Male	0.81 (0.64-1.03) p = 0.088	0.80 (0.67-0.96) p = 0.014	0.72 (0.63-0.83) p < .001
Sex: Other	0.42 (0.17-1.05) p = 0.065	0.56 (0.31-1.02) p = 0.058	0.45 (0.28-0.71) p = 0.001
Age	1.07 (0.77-1.50) p = 0.673	0.95 (0.75-1.22) p = 0.708	0.92 (0.76-1.10) p = 0.359
Ethnicity: Asian/Asian British	0.78 (0.55-1.10) p = 0.153	0.77 (0.59-1.00) p = 0.052	0.76 (0.63-0.92) p = 0.004
Ethnicity: Black/African/Caribbean/Black British	0.66 (0.32-1.40) p = 0.281	0.97 (0.62-1.51) p = 0.876	0.81 (0.58-1.12) p = 0.208
Ethnicity: Mixed/Multiple	0.80 (0.46-1.38) p = 0.416	1.02 (0.71-1.48) p = 0.898	0.86 (0.64-1.15) p = 0.322
Ethnicity: Other	1.00 (0.53-1.90) p = 0.997	1.21 (0.77-1.88) p = 0.407	0.92 (0.64-1.32) p = 0.642
IMD Quintile: 2	1.24 (0.84-1.85) p = 0.280	1.30 (0.98-1.73) p = 0.071	1.21 (0.98-1.50) p = 0.081
IMD Quintile: 3	1.33 (0.90-1.97) p = 0.155	1.38 (1.04-1.84) p = 0.027	1.28 (1.03-1.60) p = 0.026
IMD Quintile: 4	1.63 (1.08-2.44) p = 0.019	1.40 (1.03-1.90) p = 0.031	1.24 (0.98-1.56) p = 0.076
IMD Quintile: 5	1.35 (0.89-2.05) p = 0.153	1.36 (1.00-1.85) p = 0.048	1.40 (1.11-1.76) p = 0.004
Percent FSM	1.00 (0.98-1.01) p = 0.699	1.00 (0.99-1.01) p = 0.852	1.01 (1.00-1.02) p = 0.082
School Level IDACI	1.01 (0.99-1.02) p = 0.406	1.00 (0.99-1.01) p = 0.693	1.00 (0.99-1.00) p = 0.385
Sixth Form: Yes	1.17 (0.91-1.50) p = 0.219	1.23 (1.01-1.48) p = 0.038	1.10 (0.95-1.27) p = 0.221
Provision: External	0.94 (0.74-1.19) p = 0.606	0.99 (0.83-1.18) p = 0.895	0.99 (0.87-1.13) p = 0.889
Religious: Secular	1.90 (1.13-3.20) p = 0.015	1.07 (0.78-1.48) p = 0.667	0.84 (0.67-1.07) p = 0.158
Year collected: 2020/2021	0.80 (0.51-1.25) p = 0.320	0.93 (0.67-1.29) p = 0.674	0.88 (0.69-1.13) p = 0.308
Year collected: 2021/2022	0.95 (0.73-1.23) p = 0.695	0.84 (0.70-1.02) p = 0.083	0.86 (0.75-1.00) p = 0.051
Year: 9	0.74 (0.36-1.52) p = 0.420	1.05 (0.62-1.78) p = 0.864	1.16 (0.78-1.75) p = 0.465
Year: 10	0.67 (0.24-1.89) p = 0.452	1.15 (0.53-2.47) p = 0.727	1.32 (0.74-2.37) p = 0.344

Full models for nutritional outcomes including interaction term between SFS-mandated school status and IMD quintile group

Table 10. Outcome: Free sugar intake; SFS-mandated status – IMD quintile group interaction included as coefficient

Coefficient	Free sugar (g) Lunch	Free sugar (g) School day	Free sugar (g) 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-1.34 (-4.96-2.28) p = 0.467	1.53 (-4.27-7.33) p = 0.605	2.60 (-8.44-13.64) p = 0.644
IMD Quintile: 2	3.59 (-0.26-7.43) p = 0.067	3.65 (-2.28-9.58) p = 0.227	5.90 (-5.45-17.25) p = 0.308
IMD Quintile: 3	2.60 (-1.30-6.49) p = 0.192	3.20 (-2.85-9.25) p = 0.301	6.16 (-5.54-17.86) p = 0.302
IMD Quintile: 4	1.80 (-2.15-5.76) p = 0.372	0.66 (-5.49-6.81) p = 0.834	2.52 (-9.33-14.37) p = 0.677
IMD Quintile: 5	1.10 (-2.79-4.98) p = 0.580	1.24 (-4.85-7.32) p = 0.690	-1.66 (-13.44-10.13) p = 0.783
SFS Interaction with IMD Quintile 2	-2.70 (-8.28-2.88) p = 0.342	-2.32 (-10.92-6.28) p = 0.598	-5.56 (-22.18-11.06) p = 0.512
SFS Interaction with IMD Quintile 3	-2.46 (-8.03-3.12) p = 0.387	-3.38 (-12.11-5.34) p = 0.448	-11.96 (-28.70-4.77) p = 0.161
SFS Interaction with IMD Quintile 4	-1.80 (-8.04-4.44) p = 0.571	-1.55 (-11.27-8.16) p = 0.754	-1.64 (-20.50-17.23) p = 0.865
SFS Interaction with IMD Quintile 5	-0.98 (-7.25-5.29) p = 0.759	0.53 (-9.29-10.34) p = 0.916	17.14 (-1.88-36.16) p = 0.077
Sex: Male	-0.20 (-2.00-1.60) p = 0.826	0.42 (-2.36-3.19) p = 0.769	4.46 (-0.94-9.85) p = 0.106
Sex: Other	0.34 (-4.66-5.34) p = 0.894	-0.50 (-8.17-7.18) p = 0.899	-12.50 (-27.08-2.08) p = 0.093
Age	-1.12 (-3.68-1.44) p = 0.390	0.44 (-3.51-4.39) p = 0.829	0.47 (-7.14-8.08) p = 0.904
Ethnicity: Asian/Asian British	-1.63 (-4.06-0.81) p = 0.190	-3.81 (-7.62- -0.009) p = 0.049	-11.00 (-18.40- -3.60) p = 0.004
Ethnicity: Black/African/Caribbean/Black British	1.81 (-2.22-5.84) p = 0.379	7.43 (1.18-13.68) p = 0.020	4.93 (-7.07-16.94) p = 0.421
Ethnicity: Mixed/Multiple	-3.08 (-6.85-0.69) p = 0.109	-4.16 (-9.96-1.64) p = 0.160	-11.06 (-22.39-0.27) p = 0.056
Ethnicity: Other	2.59 (-2.32-7.51) p = 0.301	5.51 (-1.92-12.95) p = 0.146	4.47 (-9.73-18.67) p = 0.537
Source of Lunch: 100% School Provided	-3.57 (-5.21- -1.93) p < .001	-2.07 (-4.58-0.44) p = 0.106	3.78 (-0.93-8.50) p = 0.116
Percent FSM	0.08 (-0.03-0.20) p = 0.150	0.0008 (-0.19-0.19) p = 0.994	0.13 (-0.22-0.49) p = 0.469
School Level IDACI	0.12 (0.01-0.23) p = 0.029	0.26 (0.08-0.44) p = 0.004	0.34 (-0.001-0.69) p = 0.051
Sixth Form: Yes	-3.23 (-5.21- -1.25) p = 0.001	-1.79 (-5.16-1.59) p = 0.299	-2.81 (-9.24-3.62) p = 0.392
Provision: External	1.13 (-0.66-2.93) p = 0.215	1.57 (-1.47-4.61) p = 0.312	4.03 (-1.73-9.79) p = 0.170
Religious: Secular	4.97 (1.81-8.13) p = 0.002	5.62 (0.17-11.06) p = 0.043	1.56 (-8.85-11.97) p = 0.769
Year collected: 2020/2021	-3.65 (-6.95- -0.34) p = 0.030	-1.32 (-6.93-4.29) p = 0.645	-3.99 (-14.66-6.67) p = 0.463
Year collected: 2021/2022	0.42 (-1.60-2.45) p = 0.681	1.18 (-2.24-4.61) p = 0.498	-0.41 (-6.91-6.09) p = 0.902
Year: 9	0.89 (-4.62-6.40) p = 0.751	-3.75 (-12.22-4.72) p = 0.385	-2.17 (-18.56-14.22) p = 0.795
Year: 10	0.88 (-7.07-8.84) p =	-6.19 (-18.46-6.07) p =	-5.04 (-28.65-18.57) p =

Coefficient	Free sugar (g) Lunch	Free sugar (g) School day	Free sugar (g) 24-hour day
	0.827	0.322	0.676

Table 11. Outcome: Percentage Total Energy Intake (TEI) from free sugar; SFS-mandated status – IMD quintile group interaction included as coefficient

Coefficient	%TEI from free sugar Lunch	%TEI from free sugar School day	%TEI from free sugar 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	0.09 (-2.84-3.01) p = 0.955	0.51 (-2.21-3.23) p = 0.713	0.21 (-1.73-2.15) p = 0.833
IMD Quintile: 2	-0.01 (-2.77-2.74) p = 0.992	0.83 (-1.73-3.39) p = 0.525	-0.70 (-2.47-1.07) p = 0.438
IMD Quintile: 3	1.28 (-1.56-4.12) p = 0.376	2.03 (-0.61-4.67) p = 0.132	0.24 (-1.61-2.09) p = 0.798
IMD Quintile: 4	0.40 (-2.50-3.30) p = 0.786	1.05 (-1.64-3.75) p = 0.443	0.19 (-1.69-2.07) p = 0.843
IMD Quintile: 5	-1.11 (-3.98-1.77) p = 0.451	0.08 (-2.60-2.76) p = 0.953	-1.76 (-3.64-0.13) p = 0.068
SFS Interaction with IMD Quintile 2	-1.89 (-5.92-2.14) p = 0.357	-1.63 (-5.36-2.11) p = 0.393	0.89 (-1.71-3.50) p = 0.501
SFS Interaction with IMD Quintile 3	-3.21 (-7.34-0.93) p = 0.128	-2.76 (-6.61-1.10) p = 0.161	-0.74 (-3.43-1.95) p = 0.590
SFS Interaction with IMD Quintile 4	-1.35 (-5.94-3.24) p = 0.564	-1.33 (-5.59-2.94) p = 0.542	0.31 (-2.70-3.32) p = 0.839
SFS Interaction with IMD Quintile 5	1.67 (-2.98-6.32) p = 0.481	1.80 (-2.54-6.13) p = 0.416	3.57 (0.51-6.63) p = 0.022
Sex: Male	-1.59 (-2.89- -0.29) p = 0.017	-1.25 (-2.46- -0.05) p = 0.041	-0.58 (-1.42-0.26) p = 0.177
Sex: Other	0.38 (-3.16-3.92) p = 0.834	0.15 (-3.13-3.43) p = 0.929	-1.33 (-3.58-0.91) p = 0.244
Age	-1.14 (-3.01-0.73) p = 0.233	-0.50 (-2.22-1.23) p = 0.574	-0.19 (-1.40-1.02) p = 0.758
Ethnicity: Asian/Asian British	0.11 (-1.67-1.90) p = 0.900	-0.16 (-1.83-1.50) p = 0.846	-1.63 (-2.80- -0.46) p = 0.007
Ethnicity: Black/African/Caribbean/Black British	0.57 (-2.32-3.46) p = 0.700	4.08 (1.38-6.77) p = 0.003	0.20 (-1.67-2.07) p = 0.833
Ethnicity: Mixed/Multiple	-0.82 (-3.49-1.85) p = 0.547	1.36 (-1.13-3.84) p = 0.284	-1.14 (-2.88-0.61) p = 0.203
Ethnicity: Other	-1.94 (-5.45-1.57) p = 0.279	-1.82 (-5.02-1.38) p = 0.265	-0.84 (-3.04-1.36) p = 0.455
Source of Lunch: 100% School Provided	0.68 (-0.51-1.88) p = 0.263	-0.06 (-1.17-1.05) p = 0.917	0.23 (-0.53-0.98) p = 0.556
Percent FSM	0.03 (-0.08-0.13) p = 0.621	0.03 (-0.06-0.13) p = 0.486	0.02 (-0.05-0.09) p = 0.545
School Level IDACI	0.07 (-0.03-0.17) p = 0.161	0.11 (0.01-0.20) p = 0.029	0.05 (-0.02-0.12) p = 0.170
Sixth Form: Yes	-1.97 (-3.89- -0.06) p = 0.044	-1.69 (-3.47-0.10) p = 0.064	-0.41 (-1.75-0.92) p = 0.542
Provision: External	0.78 (-0.95-2.50) p = 0.377	0.41 (-1.20-2.01) p = 0.620	0.22 (-0.96-1.41) p = 0.711
Religious: Secular	3.28 (0.14-6.42) p = 0.041	2.66 (-0.27-5.59) p = 0.075	0.39 (-1.80-2.59) p = 0.724
Year collected: 2020/2021	-1.37 (-4.52-1.78) p = 0.394	-0.12 (-3.06-2.82) p = 0.937	0.64 (-1.54-2.82) p = 0.564
Year collected: 2021/2022	1.49 (-0.43-3.41) p = 0.129	0.92 (-0.87-2.70) p = 0.316	0.71 (-0.61-2.03) p = 0.290
Year: 9	1.93 (-2.08-5.93) p = 0.346	0.91 (-2.77-4.60) p = 0.627	0.14 (-2.44-2.73) p = 0.914

Coefficient	%TEI from free sugar Lunch	%TEI from free sugar School day	%TEI from free sugar 24-hour day
Year: 10	1.98 (-3.82-7.78) p = 0.503	-0.24 (-5.59-5.11) p = 0.929	-0.72 (-4.46-3.01) p = 0.704

Table 12. Outcome: Total Energy Intake (TEI); SFS-mandated status – IMD quintile group interaction included as coefficient

Coefficient	TEI (kcal) Lunch	TEI (kcal) School day	TEI (kcal) 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-57.94 (-120.03-4.16) p = 0.067	-19.80 (-103.87-64.28) p = 0.644	-23.60 (-190.29-143.09) p = 0.781
IMD Quintile: 2	53.08 (-11.02-117.19) p = 0.105	52.32 (-36.18-140.83) p = 0.247	97.51 (-67.79-262.81) p = 0.248
IMD Quintile: 3	18.11 (-47.17-83.39) p = 0.587	20.31 (-69.65-110.26) p = 0.658	47.90 (-123.25-219.06) p = 0.583
IMD Quintile: 4	22.25 (-44.15-88.64) p = 0.511	46.80 (-44.46-138.05) p = 0.315	95.24 (-78.51-268.99) p = 0.283
IMD Quintile: 5	55.34 (-10.09-120.77) p = 0.097	57.66 (-32.30-147.63) p = 0.209	102.99 (-70.36-276.34) p = 0.244
SFS Interaction with IMD Quintile 2	-5.80 (-98.98-87.38) p = 0.903	-20.98 (-149.23-107.27) p = 0.749	-92.40 (-334.90-150.10) p = 0.455
SFS Interaction with IMD Quintile 3	42.30 (-51.57-136.17) p = 0.377	-0.24 (-129.37-128.89) p = 0.997	-93.83 (-340.17-152.51) p = 0.455
SFS Interaction with IMD Quintile 4	32.72 (-72.11-137.55) p = 0.541	11.39 (-132.70-155.49) p = 0.877	-90.92 (-367.84-185.99) p = 0.520
SFS Interaction with IMD Quintile 5	-66.67 (-172.25-38.91) p = 0.216	-67.97 (-213.02-77.09) p = 0.358	-28.12 (-308.31-252.06) p = 0.844
Sex: Male	41.21 (11.13-71.30) p = 0.007	61.24 (19.83-102.65) p = 0.004	208.38 (129.70-287.06) p < .001
Sex: Other	14.53 (-68.53-97.58) p = 0.732	-13.10 (-128.15-101.95) p = 0.823	-185.08 (-396.42-26.27) p = 0.086
Age	25.04 (-17.91-67.98) p = 0.253	49.18 (-9.47-107.82) p = 0.100	67.38 (-44.16-178.92) p = 0.236
Ethnicity: Asian/Asian British	1.76 (-39.10-42.63) p = 0.933	-18.26 (-74.71-38.18) p = 0.526	-0.90 (-109.39-107.58) p = 0.987
Ethnicity: Black/African/Caribbean/Black British	49.25 (-18.00-116.51) p = 0.151	58.81 (-34.59-152.21) p = 0.217	109.21 (-65.48-283.89) p = 0.220
Ethnicity: Mixed/Multiple	-49.90 (-112.52-12.73) p = 0.118	-107.12 (-193.99- -20.26) p = 0.016	-79.75 (-244.09-84.60) p = 0.342
Ethnicity: Other	183.59 (101.67-265.50) p < .001	224.52 (113.22-335.81) p < .001	147.42 (-58.88-353.71) p = 0.161
Source of Lunch: 100% School Provided	-130.80 (-158.34- -103.26) p < .001	-68.60 (-105.96- -31.23) p < .001	12.03 (-57.36-81.43) p = 0.734
Percent FSM	-0.70 (-2.70-1.30) p = 0.493	-0.84 (-3.50-1.82) p = 0.536	-0.22 (-5.76-5.32) p = 0.937
School Level IDACI	2.11 (0.20-4.02) p = 0.031	2.27 (-0.24-4.78) p = 0.077	3.43 (-2.01-8.88) p = 0.217
Sixth Form: Yes	-42.54 (-78.16- -6.93) p = 0.019	-18.05 (-64.67-28.57) p = 0.448	-13.01 (-115.39-89.37) p = 0.803
Provision: External	3.82 (-28.40-36.04) p = 0.816	33.93 (-8.14-76.00) p = 0.114	41.87 (-49.82-133.55) p = 0.371
Religious: Secular	75.36 (18.01-132.71) p = 0.010	114.23 (39.61-188.85) p = 0.003	92.39 (-74.66-259.44) p = 0.278
Year collected: 2020/2021	-59.32 (-118.53- -0.10) p = 0.050	-35.32 (-113.19-42.54) p = 0.374	-83.22 (-252.21-85.77) p = 0.334
Year collected: 2021/2022	-41.87 (-78.12- -5.61) p	-41.12 (-88.73-6.48) p =	-74.57 (-177.44-28.30) p

Coefficient	TEI (kcal) Lunch	TEI (kcal) School day	TEI (kcal) 24-hour day
	= 0.024	0.090	= 0.155
Year: 9	-92.49 (-184.70- -0.28) p = 0.049	-157.70 (-283.66- -31.74) p = 0.014	-159.05 (-398.77-80.68) p = 0.193
Year: 10	-101.17 (-234.46-32.11) p = 0.137	-180.61 (-362.85-1.62) p = 0.052	-184.56 (-530.32-161.21) p = 0.295

Table 13. Outcome: Fat intake; SFS-mandated status – IMD quintile group interaction included as coefficient

Coefficient	Fat intake (g) Lunch	Fat intake (g) School day	Fat intake (g) 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-2.64 (-5.67-0.39) p = 0.087	-1.66 (-5.64-2.33) p = 0.415	0.15 (-7.17-7.46) p = 0.969
IMD Quintile: 2	3.29 (0.13-6.45) p = 0.041	2.05 (-2.12-6.23) p = 0.335	5.64 (-1.73-13.01) p = 0.134
IMD Quintile: 3	1.03 (-2.18-4.24) p = 0.528	0.77 (-3.47-5.02) p = 0.721	0.09 (-7.53-7.70) p = 0.982
IMD Quintile: 4	1.18 (-2.09-4.44) p = 0.479	2.86 (-1.45-7.17) p = 0.193	4.22 (-3.50-11.93) p = 0.284
IMD Quintile: 5	2.62 (-0.59-5.84) p = 0.109	2.77 (-1.48-7.02) p = 0.202	4.50 (-3.19-12.19) p = 0.251
SFS Interaction with IMD Quintile 2	-0.78 (-5.37-3.81) p = 0.739	-0.005 (-6.06-6.05) p = 0.999	-6.10 (-16.92-4.71) p = 0.269
SFS Interaction with IMD Quintile 3	1.80 (-2.82-6.41) p = 0.445	0.47 (-5.64-6.57) p = 0.881	-2.47 (-13.42-8.49) p = 0.659
SFS Interaction with IMD Quintile 4	2.96 (-2.20-8.11) p = 0.261	2.36 (-4.44-9.17) p = 0.497	-5.25 (-17.55-7.05) p = 0.402
SFS Interaction with IMD Quintile 5	-1.57 (-6.75-3.61) p = 0.552	-1.38 (-8.23-5.48) p = 0.693	-4.55 (-16.97-7.88) p = 0.473
Sex: Male	1.67 (0.19-3.15) p = 0.027	2.33 (0.38-4.28) p = 0.019	7.27 (3.77-10.78) p < .001
Sex: Other	-0.19 (-4.29-3.91) p = 0.928	-1.21 (-6.63-4.22) p = 0.663	-9.70 (-19.13- -0.26) p = 0.044
Age	1.09 (-1.02-3.20) p = 0.311	2.63 (-0.14-5.40) p = 0.063	3.16 (-1.80-8.12) p = 0.212
Ethnicity: Asian/Asian British	0.03 (-1.98-2.03) p = 0.979	-0.63 (-3.30-2.03) p = 0.640	0.46 (-4.34-5.26) p = 0.852
Ethnicity: Black/African/Caribbean/Black British	1.84 (-1.48-5.16) p = 0.277	2.07 (-2.33-6.48) p = 0.356	1.46 (-6.34-9.26) p = 0.714
Ethnicity: Mixed/Multiple	-2.09 (-5.18-0.99) p = 0.184	-4.65 (-8.74- -0.55) p = 0.026	-3.09 (-10.43-4.24) p = 0.408
Ethnicity: Other	8.93 (4.89-12.98) p < .001	11.76 (6.51-17.02) p < .001	9.94 (0.71-19.16) p = 0.035
Source of Lunch: 100% School Provided	-5.01 (-6.38- -3.64) p < .001	-2.67 (-4.45- -0.89) p = 0.003	-0.46 (-3.63-2.72) p = 0.779
Percent FSM	-0.03 (-0.13-0.06) p = 0.512	-0.03 (-0.15-0.10) p = 0.698	0.04 (-0.20-0.28) p = 0.761
School Level IDACI	0.10 (0.004-0.19) p = 0.041	0.08 (-0.04-0.20) p = 0.171	0.10 (-0.14-0.33) p = 0.417
Sixth Form: Yes	-1.54 (-3.24-0.16) p = 0.076	-0.41 (-2.63-1.80) p = 0.714	-0.96 (-5.31-3.39) p = 0.665
Provision: External	0.21 (-1.33-1.75) p = 0.789	1.48 (-0.53-3.48) p = 0.149	1.83 (-2.08-5.73) p = 0.359
Religious: Secular	3.43 (0.69-6.16) p = 0.014	5.25 (1.69-8.81) p = 0.004	5.22 (-1.88-12.32) p = 0.149
Year collected: 2020/2021	-2.28 (-5.12-0.55) p =	-1.19 (-4.89-2.51) p =	-1.59 (-8.80-5.62) p =

Coefficient	Fat intake (g) Lunch	Fat intake (g) School day	Fat intake (g) 24-hour day
	0.114	0.529	0.666
Year collected: 2021/2022	-2.56 (-4.29- -0.82) p = 0.004	-2.55 (-4.82- -0.29) p = 0.027	-3.08 (-7.49-1.32) p = 0.170
Year: 9	-3.47 (-8.01-1.06) p = 0.133	-7.04 (-12.99- -1.10) p = 0.020	-6.82 (-17.49-3.84) p = 0.210
Year: 10	-3.60 (-10.15-2.95) p = 0.282	-8.00 (-16.61-0.60) p = 0.068	-6.83 (-22.20-8.55) p = 0.384

Table 14. Outcome: Fibre intake; SFS-mandated status – IMD quintile group interaction included as coefficient

Coefficient	Fibre intake (g) Lunch	Fibre intake (g) School day	Fibre intake (g) 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-0.22 (-0.90-0.46) p = 0.531	0.07 (-0.74-0.88) p = 0.867	-0.62 (-2.38-1.13) p = 0.486
IMD Quintile: 2	0.19 (-0.45-0.82) p = 0.568	0.25 (-0.55-1.04) p = 0.546	0.35 (-1.22-1.92) p = 0.665
IMD Quintile: 3	-0.006 (-0.66-0.65) p = 0.985	0.17 (-0.65-0.99) p = 0.679	0.82 (-0.83-2.46) p = 0.330
IMD Quintile: 4	0.23 (-0.44-0.90) p = 0.506	0.68 (-0.16-1.51) p = 0.113	1.35 (-0.33-3.02) p = 0.115
IMD Quintile: 5	0.43 (-0.23-1.10) p = 0.202	0.67 (-0.16-1.50) p = 0.112	1.76 (0.07-3.44) p = 0.041
SFS Interaction with IMD Quintile 2	0.07 (-0.86-1.00) p = 0.882	-0.03 (-1.19-1.13) p = 0.957	0.30 (-2.01-2.61) p = 0.800
SFS Interaction with IMD Quintile 3	0.29 (-0.67-1.24) p = 0.556	-0.24 (-1.43-0.95) p = 0.688	-0.93 (-3.32-1.46) p = 0.446
SFS Interaction with IMD Quintile 4	-0.12 (-1.18-0.95) p = 0.828	-0.44 (-1.76-0.88) p = 0.513	-1.13 (-3.81-1.54) p = 0.407
SFS Interaction with IMD Quintile 5	-0.61 (-1.68-0.47) p = 0.270	-0.80 (-2.14-0.53) p = 0.239	-0.19 (-2.91-2.54) p = 0.893
Sex: Male	0.15 (-0.15-0.45) p = 0.325	0.28 (-0.10-0.65) p = 0.150	1.13 (0.39-1.88) p = 0.003
Sex: Other	-0.16 (-0.98-0.66) p = 0.705	-0.40 (-1.43-0.62) p = 0.440	-1.54 (-3.52-0.45) p = 0.130
Age	0.21 (-0.22-0.65) p = 0.334	0.45 (-0.08-0.99) p = 0.099	0.45 (-0.62-1.52) p = 0.410
Ethnicity: Asian/Asian British	0.07 (-0.34-0.48) p = 0.739	-0.16 (-0.68-0.36) p = 0.544	-0.0007 (-1.04-1.04) p = 0.999
Ethnicity: Black/African/Caribbean/Black British	0.16 (-0.51-0.83) p = 0.634	-0.06 (-0.90-0.78) p = 0.896	-0.34 (-2.00-1.31) p = 0.686
Ethnicity: Mixed/Multiple	-0.27 (-0.89-0.34) p = 0.384	-0.73 (-1.51-0.05) p = 0.065	-0.56 (-2.10-0.99) p = 0.482
Ethnicity: Other	1.43 (0.62-2.24) p = 0.001	1.26 (0.26-2.26) p = 0.013	-0.35 (-2.30-1.60) p = 0.727
Source of Lunch: 100% School Provided	-1.37 (-1.65- -1.10) p < .001	-0.85 (-1.19- -0.51) p < .001	-0.13 (-0.80-0.53) p = 0.691
Percent FSM	-0.02 (-0.04-0.004) p = 0.098	-0.02 (-0.05-0.005) p = 0.107	-0.03 (-0.09-0.03) p = 0.331
School Level IDACI	0.02 (-0.007-0.04) p = 0.172	0.02 (-0.010-0.04) p = 0.208	0.03 (-0.03-0.10) p = 0.356
Sixth Form: Yes	0.17 (-0.29-0.62) p = 0.472	0.42 (-0.09-0.92) p = 0.106	0.61 (-0.62-1.84) p = 0.334
Provision: External	0.01 (-0.40-0.42) p = 0.958	0.30 (-0.15-0.76) p = 0.189	0.26 (-0.84-1.36) p = 0.644
Religious: Secular	0.28 (-0.47-1.02) p =	0.92 (0.10-1.74) p =	0.74 (-1.29-2.77) p =

Coefficient	Fibre intake (g) Lunch	Fibre intake (g) School day	Fibre intake (g) 24-hour day
	0.469	0.029	0.476
Year collected: 2020/2021	0.24 (-0.50-0.99) p = 0.522	0.23 (-0.61-1.06) p = 0.594	-0.20 (-2.21-1.81) p = 0.848
Year collected: 2021/2022	-0.43 (-0.89-0.02) p = 0.062	-0.52 (-1.02- -0.007) p = 0.047	-1.09 (-2.30-0.13) p = 0.080
Year: 9	-0.84 (-1.77-0.09) p = 0.075	-1.44 (-2.59- -0.30) p = 0.013	-1.29 (-3.58-1.01) p = 0.273
Year: 10	-0.98 (-2.32-0.36) p = 0.152	-1.63 (-3.29-0.03) p = 0.055	-1.38 (-4.71-1.94) p = 0.414

Table 15. Outcome: Fruit and vegetable (F&V) intake; SFS-mandated status – IMD quintile group interaction included as coefficient

Coefficient	F&V portions Lunch	F&V portions School day	F&V portions 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-0.19 (-0.40-0.02) p = 0.078	-0.14 (-0.37-0.10) p = 0.257	-0.40 (-0.86-0.06) p = 0.087
IMD Quintile: 2	0.007 (-0.20-0.21) p = 0.944	-0.01 (-0.25-0.23) p = 0.928	0.07 (-0.35-0.48) p = 0.755
IMD Quintile: 3	0.03 (-0.18-0.24) p = 0.747	0.09 (-0.16-0.33) p = 0.498	0.27 (-0.16-0.71) p = 0.223
IMD Quintile: 4	0.03 (-0.19-0.24) p = 0.791	0.04 (-0.21-0.29) p = 0.765	0.08 (-0.36-0.52) p = 0.724
IMD Quintile: 5	0.02 (-0.19-0.24) p = 0.831	0.07 (-0.18-0.32) p = 0.568	0.19 (-0.25-0.64) p = 0.392
SFS Interaction with IMD Quintile 2	-0.03 (-0.33-0.27) p = 0.845	-0.01 (-0.37-0.34) p = 0.934	0.12 (-0.50-0.73) p = 0.711
SFS Interaction with IMD Quintile 3	-0.06 (-0.37-0.24) p = 0.680	-0.20 (-0.55-0.16) p = 0.279	-0.10 (-0.73-0.54) p = 0.761
SFS Interaction with IMD Quintile 4	-0.10 (-0.44-0.24) p = 0.555	-0.11 (-0.51-0.28) p = 0.571	0.17 (-0.54-0.88) p = 0.636
SFS Interaction with IMD Quintile 5	-0.09 (-0.43-0.25) p = 0.608	-0.06 (-0.46-0.35) p = 0.786	0.17 (-0.56-0.89) p = 0.651
Sex: Male	-0.04 (-0.14-0.05) p = 0.368	-0.03 (-0.14-0.09) p = 0.625	-0.03 (-0.23-0.17) p = 0.767
Sex: Other	-0.16 (-0.42-0.11) p = 0.247	-0.26 (-0.58-0.05) p = 0.100	-0.46 (-0.99-0.06) p = 0.085
Age	0.05 (-0.08-0.19) p = 0.445	0.05 (-0.11-0.21) p = 0.561	0.15 (-0.14-0.43) p = 0.315
Ethnicity: Asian/Asian British	-0.04 (-0.17-0.09) p = 0.580	-0.07 (-0.22-0.09) p = 0.406	-0.10 (-0.38-0.17) p = 0.469
Ethnicity: Black/African/Caribbean/Black British	0.03 (-0.19-0.24) p = 0.794	0.003 (-0.25-0.26) p = 0.980	0.05 (-0.39-0.49) p = 0.838
Ethnicity: Mixed/Multiple	0.02 (-0.18-0.22) p = 0.862	-0.05 (-0.29-0.19) p = 0.672	-0.10 (-0.51-0.31) p = 0.622
Ethnicity: Other	0.16 (-0.10-0.43) p = 0.215	0.18 (-0.13-0.48) p = 0.248	-0.14 (-0.66-0.38) p = 0.602
Source of Lunch: 100% School Provided	-0.26 (-0.35- -0.17) p < .001	-0.20 (-0.30- -0.10) p < .001	0.008 (-0.17-0.19) p = 0.928
Percent FSM	-0.01 (-0.02- -0.003) p = 0.004	-0.01 (-0.02- -0.006) p < .001	-0.03 (-0.04- -0.009) p = 0.002
School Level IDACI	0.005 (-0.002-0.01) p = 0.154	0.006 (-0.001-0.01) p = 0.109	0.010 (-0.007-0.03) p = 0.264
Sixth Form: Yes	0.03 (-0.11-0.16) p = 0.707	0.07 (-0.06-0.21) p = 0.301	0.12 (-0.20-0.44) p = 0.473
Provision: External	0.07 (-0.05-0.18) p =	0.11 (-0.009-0.24) p =	0.09 (-0.20-0.37) p =

Coefficient	F&V portions Lunch	F&V portions School day	F&V portions 24-hour day
	0.269	0.070	0.541
Religious: Secular	0.10 (-0.11-0.32) p = 0.347	0.22 (-0.004-0.44) p = 0.055	0.28 (-0.24-0.81) p = 0.293
Year collected: 2020/2021	0.03 (-0.19-0.25) p = 0.786	0.02 (-0.21-0.25) p = 0.855	0.09 (-0.43-0.62) p = 0.726
Year collected: 2021/2022	0.11 (-0.02-0.24) p = 0.099	0.10 (-0.04-0.24) p = 0.149	0.05 (-0.26-0.37) p = 0.738
Year: 9	-0.13 (-0.43-0.17) p = 0.395	-0.18 (-0.52-0.17) p = 0.315	-0.38 (-0.99-0.23) p = 0.222
Year: 10	-0.23 (-0.66-0.20) p = 0.293	-0.21 (-0.72-0.29) p = 0.402	-0.53 (-1.41-0.35) p = 0.239

Table 16. Outcome: number of sugar sweetened beverages (SSB) consumed (Poisson models); SFS-mandated status – IMD quintile group interaction included as coefficient

Coefficient	SSB items Incidence Rate Ratio Lunch	SSB items Incidence Rate Ratio School day	SSB items Incidence Rate Ratio 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	1.09 (0.69-1.72) p = 0.715	0.93 (0.56-1.52) p = 0.765	1.21 (0.84-1.74) p = 0.309
IMD Quintile: 2	0.82 (0.49-1.37) p = 0.447	0.81 (0.49-1.33) p = 0.406	0.95 (0.67-1.35) p = 0.783
IMD Quintile: 3	0.75 (0.44-1.27) p = 0.286	0.70 (0.42-1.16) p = 0.167	0.98 (0.69-1.41) p = 0.924
IMD Quintile: 4	0.77 (0.44-1.33) p = 0.346	0.73 (0.43-1.25) p = 0.248	1.02 (0.70-1.48) p = 0.920
IMD Quintile: 5	0.49 (0.27-0.89) p = 0.019	0.55 (0.32-0.97) p = 0.039	0.61 (0.41-0.90) p = 0.013
SFS Interaction with IMD Quintile 2	1.04 (0.50-2.17) p = 0.919	1.39 (0.68-2.86) p = 0.369	1.15 (0.70-1.90) p = 0.569
SFS Interaction with IMD Quintile 3	0.86 (0.40-1.88) p = 0.706	1.30 (0.61-2.75) p = 0.498	0.83 (0.49-1.39) p = 0.478
SFS Interaction with IMD Quintile 4	0.87 (0.36-2.11) p = 0.756	1.05 (0.44-2.50) p = 0.916	0.94 (0.52-1.68) p = 0.826
SFS Interaction with IMD Quintile 5	1.62 (0.67-3.95) p = 0.285	2.01 (0.86-4.68) p = 0.105	1.82 (1.00-3.29) p = 0.048
Sex: Male	0.89 (0.68-1.15) p = 0.361	0.94 (0.74-1.21) p = 0.639	0.93 (0.79-1.10) p = 0.418
Sex: Other	1.11 (0.56-2.20) p = 0.767	1.22 (0.64-2.34) p = 0.548	0.93 (0.59-1.47) p = 0.751
Age	1.04 (0.72-1.50) p = 0.844	0.91 (0.64-1.29) p = 0.589	0.85 (0.67-1.09) p = 0.200
Ethnicity: Asian/Asian British	0.66 (0.44-1.00) p = 0.049	0.76 (0.52-1.11) p = 0.155	0.78 (0.61-1.00) p = 0.047
Ethnicity: Black/African/Caribbean/Black British	0.92 (0.52-1.63) p = 0.778	1.04 (0.62-1.77) p = 0.873	0.86 (0.59-1.26) p = 0.443
Ethnicity: Mixed/Multiple	0.71 (0.40-1.29) p = 0.266	0.85 (0.51-1.44) p = 0.554	0.84 (0.59-1.20) p = 0.331
Ethnicity: Other	1.06 (0.58-1.93) p = 0.850	0.93 (0.50-1.73) p = 0.812	0.73 (0.46-1.16) p = 0.177
Source of Lunch: 100% School Provided	0.88 (0.69-1.13) p = 0.311	1.04 (0.83-1.30) p = 0.749	1.23 (1.06-1.43) p = 0.007
Percent FSM	1.00 (0.98-1.02) p = 0.900	1.00 (0.98-1.01) p = 0.603	1.00 (0.99-1.01) p = 0.998
School Level IDACI	1.01 (0.99-1.03) p = 0.206	1.01 (1.00-1.03) p = 0.120	1.01 (1.00-1.03) p = 0.058

Coefficient	SSB items Incidence Rate Ratio Lunch	SSB items Incidence Rate Ratio School day	SSB items Incidence Rate Ratio 24-hour day
Sixth Form: Yes	1.13 (0.86-1.50) p = 0.378	1.20 (0.86-1.66) p = 0.285	1.13 (0.87-1.46) p = 0.363
Provision: External	1.06 (0.82-1.38) p = 0.649	0.93 (0.69-1.25) p = 0.608	0.96 (0.77-1.21) p = 0.734
Religious: Secular	1.96 (1.05-3.68) p = 0.036	2.40 (1.25-4.60) p = 0.009	1.20 (0.78-1.84) p = 0.418
Year collected: 2020/2021	0.82 (0.50-1.33) p = 0.424	0.90 (0.52-1.56) p = 0.706	1.13 (0.74-1.72) p = 0.572
Year collected: 2021/2022	0.64 (0.49-0.85) p = 0.002	0.70 (0.51-0.96) p = 0.025	0.85 (0.66-1.10) p = 0.214
Year: 9	0.72 (0.33-1.58) p = 0.411	0.87 (0.41-1.85) p = 0.724	1.15 (0.69-1.92) p = 0.594
Year: 10	0.63 (0.20-2.00) p = 0.436	0.85 (0.28-2.52) p = 0.764	1.05 (0.50-2.21) p = 0.906

Table 17. Outcome: number of high fat, sugar and salt (HFSS) items consumed (Poisson models); SFS-mandated status – IMD quintile group interaction included as coefficient

Coefficient	HFSS items Incidence Rate Ratio Lunch	HFSS items Incidence Rate Ratio School day	HFSS items Incidence Rate Ratio 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	0.87 (0.72-1.05) p = 0.147	0.91 (0.78-1.07) p = 0.261	0.95 (0.84-1.08) p = 0.437
IMD Quintile: 2	0.98 (0.82-1.19) p = 0.869	1.02 (0.87-1.19) p = 0.826	0.99 (0.88-1.12) p = 0.892
IMD Quintile: 3	1.03 (0.85-1.24) p = 0.762	1.07 (0.91-1.25) p = 0.418	1.06 (0.94-1.20) p = 0.331
IMD Quintile: 4	1.11 (0.92-1.35) p = 0.275	1.15 (0.98-1.35) p = 0.078	1.11 (0.98-1.26) p = 0.097
IMD Quintile: 5	1.10 (0.91-1.33) p = 0.333	1.13 (0.97-1.33) p = 0.126	1.11 (0.98-1.26) p = 0.108
SFS Interaction with IMD Quintile 2	1.12 (0.84-1.48) p = 0.440	1.12 (0.89-1.41) p = 0.346	1.12 (0.93-1.33) p = 0.227
SFS Interaction with IMD Quintile 3	1.08 (0.82-1.43) p = 0.582	1.05 (0.83-1.33) p = 0.666	0.98 (0.82-1.18) p = 0.831
SFS Interaction with IMD Quintile 4	1.10 (0.82-1.49) p = 0.523	1.06 (0.82-1.36) p = 0.663	1.04 (0.85-1.28) p = 0.669
SFS Interaction with IMD Quintile 5	1.02 (0.75-1.40) p = 0.900	1.11 (0.86-1.44) p = 0.430	1.09 (0.89-1.34) p = 0.418
Sex: Male	0.87 (0.80-0.95) p = 0.003	0.89 (0.83-0.96) p = 0.002	0.93 (0.88-0.99) p = 0.021
Sex: Other	1.02 (0.81-1.29) p = 0.852	0.91 (0.74-1.12) p = 0.361	0.79 (0.67-0.93) p = 0.004
Age	0.97 (0.86-1.11) p = 0.687	1.01 (0.91-1.12) p = 0.891	0.99 (0.91-1.07) p = 0.780
Ethnicity: Asian/Asian British	0.83 (0.74-0.94) p = 0.004	0.84 (0.76-0.93) p = 0.001	0.88 (0.81-0.96) p = 0.002
Ethnicity: Black/African/Caribbean/Black British	0.78 (0.62-0.99) p = 0.038	0.91 (0.77-1.09) p = 0.313	0.91 (0.80-1.04) p = 0.177
Ethnicity: Mixed/Multiple	0.87 (0.72-1.06) p = 0.167	0.88 (0.75-1.03) p = 0.107	0.87 (0.77-0.99) p = 0.033
Ethnicity: Other	1.14 (0.92-1.42) p = 0.234	1.04 (0.86-1.26) p = 0.661	1.03 (0.89-1.20) p = 0.655
Source of Lunch: 100% School Provided	0.55 (0.50-0.60) p < .001	0.70 (0.65-0.75) p < .001	0.90 (0.85-0.95) p < .001

Coefficient	HFSS items Incidence Rate Ratio Lunch	HFSS items Incidence Rate Ratio School day	HFSS items Incidence Rate Ratio 24-hour day
Percent FSM	0.99 (0.99-1.00) p = 0.012	1.00 (0.99-1.00) p = 0.094	1.00 (0.99-1.00) p = 0.614
School Level IDACI	1.01 (1.00-1.02) p < .001	1.01 (1.00-1.01) p = 0.013	1.00 (1.00-1.01) p = 0.166
Sixth Form: Yes	0.98 (0.88-1.08) p = 0.638	1.03 (0.95-1.11) p = 0.515	1.01 (0.94-1.09) p = 0.742
Provision: External	1.04 (0.95-1.14) p = 0.386	1.02 (0.95-1.10) p = 0.545	1.02 (0.95-1.09) p = 0.647
Religious: Secular	1.30 (1.09-1.56) p = 0.004	1.18 (1.02-1.35) p = 0.023	1.00 (0.88-1.13) p = 0.972
Year collected: 2020/2021	0.86 (0.73-1.02) p = 0.089	0.95 (0.83-1.09) p = 0.495	0.98 (0.87-1.11) p = 0.737
Year collected: 2021/2022	0.89 (0.80-0.98) p = 0.025	0.89 (0.81-0.96) p = 0.005	0.93 (0.86-1.00) p = 0.052
Year: 9	0.95 (0.73-1.25) p = 0.717	0.89 (0.72-1.12) p = 0.327	0.96 (0.81-1.15) p = 0.657
Year: 10	0.96 (0.65-1.43) p = 0.853	0.92 (0.66-1.26) p = 0.594	0.98 (0.76-1.26) p = 0.853

Table 18: Outcome: number of confectionery items consumed (Poisson models); SFS-mandated status – IMD quintile group interaction included as coefficient

Coefficient	Confectionery items Incidence Rate Ratio Lunch	Confectionery items Incidence Rate Ratio School day	Confectionery items Incidence Rate Ratio 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	1.14 (0.66-1.96) p = 0.645	1.27 (0.86-1.87) p = 0.227	0.91 (0.68-1.21) p = 0.496
IMD Quintile: 2	1.28 (0.76-2.18) p = 0.354	1.22 (0.82-1.82) p = 0.327	1.06 (0.79-1.41) p = 0.707
IMD Quintile: 3	1.55 (0.92-2.60) p = 0.096	1.51 (1.03-2.24) p = 0.037	1.25 (0.94-1.67) p = 0.126
IMD Quintile: 4	1.82 (1.07-3.12) p = 0.028	1.46 (0.97-2.19) p = 0.070	1.12 (0.83-1.51) p = 0.474
IMD Quintile: 5	1.48 (0.87-2.53) p = 0.149	1.43 (0.96-2.15) p = 0.080	1.27 (0.95-1.71) p = 0.103
SFS Interaction with IMD Quintile 2	0.96 (0.44-2.09) p = 0.909	1.15 (0.66-2.01) p = 0.625	1.35 (0.88-2.06) p = 0.165
SFS Interaction with IMD Quintile 3	0.70 (0.32-1.50) p = 0.356	0.81 (0.47-1.42) p = 0.468	1.01 (0.66-1.54) p = 0.966
SFS Interaction with IMD Quintile 4	0.78 (0.35-1.75) p = 0.545	0.95 (0.52-1.73) p = 0.858	1.32 (0.82-2.10) p = 0.251
SFS Interaction with IMD Quintile 5	0.87 (0.38-1.99) p = 0.748	0.90 (0.49-1.65) p = 0.734	1.25 (0.79-1.97) p = 0.333
Sex: Male	0.81 (0.64-1.03) p = 0.087	0.80 (0.67-0.95) p = 0.013	0.73 (0.64-0.83) p < .001
Sex: Other	0.42 (0.17-1.05) p = 0.065	0.56 (0.31-1.02) p = 0.056	0.45 (0.28-0.71) p = 0.001
Age	1.08 (0.77-1.52) p = 0.635	0.97 (0.75-1.24) p = 0.788	0.92 (0.76-1.11) p = 0.394
Ethnicity: Asian/Asian British	0.78 (0.55-1.11) p = 0.172	0.78 (0.60-1.01) p = 0.056	0.75 (0.62-0.91) p = 0.003
Ethnicity: Black/African/Caribbean/Black British	0.68 (0.33-1.44) p = 0.315	0.98 (0.63-1.54) p = 0.939	0.81 (0.58-1.12) p = 0.200
Ethnicity: Mixed/Multiple	0.80 (0.46-1.38) p = 0.417	1.02 (0.71-1.48) p = 0.911	0.86 (0.65-1.16) p = 0.327

Coefficient	Confectionery items Incidence Rate Ratio Lunch	Confectionery items Incidence Rate Ratio School day	Confectionery items Incidence Rate Ratio 24-hour day
Ethnicity: Other	1.01 (0.53-1.92) p = 0.974	1.20 (0.77-1.88) p = 0.412	0.91 (0.63-1.31) p = 0.602
Source of Lunch: 100% School Provided	0.15 (0.11-0.22) p < .001	0.34 (0.27-0.41) p < .001	0.68 (0.59-0.77) p < .001
Percent FSM	1.00 (0.98-1.01) p = 0.856	1.00 (0.99-1.01) p = 0.764	1.01 (1.00-1.01) p = 0.174
School Level IDACI	1.01 (0.99-1.02) p = 0.399	1.00 (0.99-1.01) p = 0.690	1.00 (0.99-1.00) p = 0.386
Sixth Form: Yes	1.16 (0.91-1.50) p = 0.236	1.23 (1.01-1.49) p = 0.037	1.10 (0.95-1.28) p = 0.185
Provision: External	0.95 (0.75-1.20) p = 0.646	0.99 (0.83-1.18) p = 0.928	0.99 (0.86-1.13) p = 0.851
Religious: Secular	1.89 (1.12-3.18) p = 0.016	1.08 (0.78-1.50) p = 0.634	0.84 (0.67-1.07) p = 0.159
Year collected: 2020/2021	0.78 (0.50-1.22) p = 0.277	0.91 (0.66-1.26) p = 0.572	0.87 (0.68-1.11) p = 0.263
Year collected: 2021/2022	0.94 (0.73-1.22) p = 0.646	0.84 (0.69-1.02) p = 0.072	0.86 (0.75-1.00) p = 0.053
Year: 9	0.74 (0.36-1.51) p = 0.404	1.03 (0.60-1.75) p = 0.925	1.15 (0.77-1.72) p = 0.501
Year: 10	0.65 (0.23-1.85) p = 0.425	1.11 (0.51-2.39) p = 0.794	1.30 (0.73-2.33) p = 0.371

Full models for nutritional outcomes including interaction term between SFS-mandated school status and Year group

Table 19. Outcome: Free sugar intake; SFS-mandated status – Year group interaction included as coefficient

Coefficient	Free sugar (g) Lunch	Free sugar (g) School day	Free sugar (g) 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
Year: 9	0.77 (-4.86-6.39) p = 0.789	-3.56 (-12.24-5.12) p = 0.421	-4.24 (-21.13-12.64) p = 0.622
Year: 10	0.71 (-7.28-8.69) p = 0.862	-5.50 (-17.83-6.84) p = 0.382	-4.65 (-28.57-19.28) p = 0.704
SFS Mandate and Year 9 Interaction	0.56 (-3.87-4.99) p = 0.805	-1.25 (-8.07-5.57) p = 0.720	3.66 (-9.71-17.03) p = 0.592
SFS Mandate and Year 10 Interaction	1.02 (-3.42-5.45) p = 0.653	-2.85 (-9.70-3.99) p = 0.414	-4.13 (-17.50-9.24) p = 0.545
Sex: Male	-0.20 (-1.99-1.59) p = 0.826	0.37 (-2.40-3.15) p = 0.792	4.16 (-1.26-9.57) p = 0.132
Sex: Other	0.38 (-4.62-5.38) p = 0.881	-0.56 (-8.23-7.11) p = 0.886	-12.92 (-27.52-1.68) p = 0.083
Age	-1.16 (-3.71-1.39) p = 0.372	0.54 (-3.40-4.49) p = 0.787	0.94 (-6.73-8.61) p = 0.810
Ethnicity: Asian/Asian British	-1.69 (-4.12-0.74) p = 0.172	-3.91 (-7.72- -0.11) p = 0.044	-11.47 (-18.92- -4.02) p = 0.003
Ethnicity: Black/African/Caribbean/Black British	1.71 (-2.31-5.73) p = 0.404	7.31 (1.08-13.53) p = 0.021	4.58 (-7.43-16.58) p = 0.455
Ethnicity: Mixed/Multiple	-3.02 (-6.79-0.74) p = 0.116	-4.19 (-9.99-1.60) p = 0.156	-11.30 (-22.65-0.05) p = 0.051
Ethnicity: Other	2.58 (-2.34-7.50) p = 0.305	5.44 (-2.00-12.87) p = 0.152	4.35 (-9.88-18.58) p = 0.549
IMD Quintile: 2	2.32 (-0.51-5.14) p = 0.108	2.46 (-1.89-6.81) p = 0.268	3.25 (-5.19-11.68) p = 0.451
IMD Quintile: 3	1.42 (-1.47-4.30) p = 0.336	1.72 (-2.77-6.22) p = 0.452	1.64 (-7.09-10.37) p = 0.713
IMD Quintile: 4	0.88 (-2.18-3.94) p = 0.573	-0.18 (-4.93-4.58) p = 0.941	2.18 (-7.09-11.45) p = 0.645
IMD Quintile: 5	0.31 (-2.74-3.37) p = 0.840	0.86 (-3.91-5.64) p = 0.723	1.67 (-7.68-11.03) p = 0.726
Source of Lunch: 100% School Provided	-3.55 (-5.19- -1.91) p < .001	-2.05 (-4.56-0.46) p = 0.109	3.77 (-0.95-8.49) p = 0.117
Percent FSM	0.07 (-0.04-0.18) p = 0.209	-0.008 (-0.19-0.17) p = 0.934	0.15 (-0.21-0.51) p = 0.416
School Level IDACI	0.12 (0.02-0.23) p = 0.025	0.26 (0.08-0.45) p = 0.005	0.34 (-0.02-0.70) p = 0.065
Sixth Form: Yes	-3.18 (-5.14- -1.21) p = 0.002	-1.69 (-5.09-1.71) p = 0.330	-2.13 (-8.90-4.63) p = 0.537
Provision: External	1.11 (-0.68-2.91) p = 0.223	1.55 (-1.53-4.63) p = 0.325	3.85 (-2.25-9.95) p = 0.216
Religious: Secular	5.00 (1.87-8.14) p = 0.002	5.82 (0.32-11.32) p = 0.038	3.30 (-7.72-14.31) p = 0.557
Year collected: 2020/2021	-3.52 (-6.78- -0.26) p = 0.034	-1.03 (-6.65-4.59) p = 0.719	-3.03 (-14.16-8.10) p = 0.594
Year collected: 2021/2022	0.51 (-1.51-2.52) p = 0.623	1.23 (-2.22-4.69) p = 0.484	-0.16 (-6.99-6.66) p = 0.962

Table 20. Outcome: Percentage Total Energy Intake (TEI) from free sugar; SFS-mandated status – Year group interaction included as coefficient

Coefficient	%TEI from free sugar Lunch	%TEI from free sugar School day	%TEI from free sugar 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-2.21 (-4.82-0.40) p = 0.097	-0.42 (-2.87-2.04) p = 0.738	1.21 (-0.58-3.01) p = 0.185
Year: 9	1.37 (-2.73-5.48) p = 0.513	0.86 (-2.93-4.65) p = 0.657	0.20 (-2.45-2.86) p = 0.880
Year: 10	1.55 (-4.30-7.41) p = 0.603	-0.29 (-5.70-5.11) p = 0.915	-0.61 (-4.39-3.17) p = 0.750
SFS Mandate and Year 9 Interaction	1.95 (-1.20-5.09) p = 0.225	0.08 (-2.84-3.01) p = 0.955	-0.54 (-2.60-1.52) p = 0.609
SFS Mandate and Year 10 Interaction	1.92 (-1.23-5.07) p = 0.231	0.23 (-2.71-3.17) p = 0.878	-0.75 (-2.81-1.32) p = 0.478
Sex: Male	-1.66 (-2.96- -0.36) p = 0.013	-1.32 (-2.53- -0.12) p = 0.032	-0.63 (-1.47-0.22) p = 0.144
Sex: Other	0.40 (-3.15-3.94) p = 0.826	0.11 (-3.18-3.40) p = 0.948	-1.43 (-3.68-0.82) p = 0.212
Age	-1.18 (-3.06-0.69) p = 0.216	-0.48 (-2.21-1.25) p = 0.588	-0.13 (-1.34-1.08) p = 0.833
Ethnicity: Asian/Asian British	0.09 (-1.70-1.87) p = 0.922	-0.19 (-1.86-1.47) p = 0.822	-1.64 (-2.82- -0.46) p = 0.006
Ethnicity: Black/African/Caribbean/Black British	0.51 (-2.37-3.40) p = 0.727	4.02 (1.32-6.71) p = 0.003	0.20 (-1.67-2.06) p = 0.837
Ethnicity: Mixed/Multiple	-0.78 (-3.45-1.89) p = 0.568	1.36 (-1.12-3.84) p = 0.283	-1.20 (-2.95-0.55) p = 0.178
Ethnicity: Other	-1.88 (-5.40-1.63) p = 0.294	-1.79 (-4.99-1.41) p = 0.273	-0.79 (-2.99-1.41) p = 0.481
IMD Quintile: 2	-0.88 (-2.92-1.15) p = 0.394	0.06 (-1.82-1.95) p = 0.947	-0.28 (-1.60-1.03) p = 0.672
IMD Quintile: 3	-0.08 (-2.19-2.03) p = 0.941	0.89 (-1.08-2.85) p = 0.377	0.09 (-1.28-1.46) p = 0.896
IMD Quintile: 4	-0.24 (-2.48-1.99) p = 0.832	0.48 (-1.60-2.55) p = 0.654	0.51 (-0.95-1.97) p = 0.494
IMD Quintile: 5	-1.17 (-3.41-1.08) p = 0.309	0.14 (-1.96-2.24) p = 0.896	-0.76 (-2.24-0.72) p = 0.314
Source of Lunch: 100% School Provided	0.69 (-0.51-1.89) p = 0.261	-0.04 (-1.15-1.06) p = 0.938	0.23 (-0.52-0.98) p = 0.545
Percent FSM	0.02 (-0.09-0.12) p = 0.760	0.03 (-0.07-0.12) p = 0.573	0.03 (-0.04-0.10) p = 0.406
School Level IDACI	0.08 (-0.03-0.18) p = 0.156	0.11 (0.009-0.21) p = 0.032	0.05 (-0.03-0.12) p = 0.208
Sixth Form: Yes	-1.85 (-3.82-0.12) p = 0.066	-1.56 (-3.41-0.28) p = 0.097	-0.32 (-1.71-1.08) p = 0.656
Provision: External	0.76 (-1.02-2.53) p = 0.405	0.39 (-1.27-2.06) p = 0.643	0.22 (-1.03-1.46) p = 0.735
Religious: Secular	3.53 (0.30-6.77) p = 0.032	2.92 (-0.12-5.96) p = 0.060	0.65 (-1.65-2.95) p = 0.579
Year collected: 2020/2021	-1.20 (-4.43-2.03) p = 0.466	0.07 (-2.96-3.10) p = 0.964	0.75 (-1.52-3.02) p = 0.517
Year collected: 2021/2022	1.58 (-0.39-3.56) p = 0.116	0.99 (-0.86-2.83) p = 0.296	0.71 (-0.67-2.09) p = 0.311

Table 21. Outcome: Total Energy Intake (TEI); SFS-mandated status – Year group interaction included as coefficient

Coefficient	TEI (kcal Lunch)	TEI (kcal) School day	TEI (kcal) 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-42.27 (-97.21-12.67) p = 0.132	1.84 (-72.72-76.41) p = 0.961	-96.87 (-248.03-54.28) p = 0.209
Year: 9	-82.51 (-176.79-11.77) p = 0.086	-153.93 (-282.38- -25.49) p = 0.019	-196.33 (-441.61-48.95) p = 0.117
Year: 10	-95.09 (-229.10-38.93) p = 0.164	-158.45 (-340.69-23.79) p = 0.088	-168.88 (-516.63-178.87) p = 0.341
SFS Mandate and Year 9 Interaction	-25.12 (-98.78-48.54) p = 0.504	-20.14 (-122.27-81.99) p = 0.699	108.36 (-85.13-301.86) p = 0.272
SFS Mandate and Year 10 Interaction	-12.49 (-86.22-61.23) p = 0.740	-78.92 (-181.41-23.58) p = 0.131	-54.26 (-247.77-139.24) p = 0.583
Sex: Male	41.97 (11.95-71.99) p = 0.006	60.62 (19.44-101.80) p = 0.004	208.54 (130.04-287.05) p < .001
Sex: Other	15.15 (-67.91-98.21) p = 0.721	-12.58 (-127.51-102.36) p = 0.830	-183.35 (-394.53-27.84) p = 0.089
Age	23.93 (-18.91-66.77) p = 0.274	50.46 (-7.83-108.75) p = 0.090	69.11 (-42.35-180.58) p = 0.224
Ethnicity: Asian/Asian British	4.10 (-36.68-44.88) p = 0.844	-15.77 (-71.81-40.27) p = 0.581	-4.35 (-112.57-103.86) p = 0.937
Ethnicity: Black/African/Caribbean/Black British	51.92 (-15.13-118.96) p = 0.129	60.52 (-32.32-153.36) p = 0.201	104.88 (-69.18-278.94) p = 0.238
Ethnicity: Mixed/Multiple	-48.51 (-111.11-14.09) p = 0.129	-105.46 (-192.20- -18.73) p = 0.017	-76.73 (-240.93-87.47) p = 0.360
Ethnicity: Other	183.39 (101.44-265.35) p < .001	224.58 (113.44-335.72) p < .001	143.24 (-62.95-349.44) p = 0.173
IMD Quintile: 2	50.75 (3.62-97.89) p = 0.035	39.60 (-25.23-104.43) p = 0.231	50.69 (-71.65-173.04) p = 0.417
IMD Quintile: 3	35.04 (-13.36-83.44) p = 0.156	15.96 (-50.62-82.53) p = 0.639	-0.87 (-127.66-125.93) p = 0.989
IMD Quintile: 4	31.09 (-20.19-82.37) p = 0.235	41.99 (-28.40-112.38) p = 0.242	53.05 (-81.61-187.71) p = 0.440
IMD Quintile: 5	44.61 (-6.69-95.91) p = 0.088	38.72 (-31.68-109.12) p = 0.281	73.95 (-62.04-209.93) p = 0.287
Source of Lunch: 100% School Provided	-131.21 (-158.73- -103.69) p < .001	-68.51 (-105.75- -31.27) p < .001	12.33 (-56.97-81.63) p = 0.727
Percent FSM	-0.68 (-2.59-1.24) p = 0.489	-0.99 (-3.47-1.49) p = 0.433	-0.77 (-6.12-4.58) p = 0.778
School Level IDACI	2.12 (0.20-4.04) p = 0.030	2.30 (-0.15-4.75) p = 0.066	3.57 (-1.89-9.02) p = 0.200
Sixth Form: Yes	-45.53 (-81.06- -9.99) p = 0.012	-19.84 (-65.02-25.35) p = 0.390	-9.88 (-111.94-92.19) p = 0.850
Provision: External	4.19 (-28.16-36.54) p = 0.800	34.64 (-6.48-75.76) p = 0.099	40.65 (-51.32-132.62) p = 0.386
Religious: Secular	70.39 (13.13-127.66) p = 0.016	111.32 (39.14-183.50) p = 0.003	94.37 (-72.45-261.19) p = 0.268
Year collected: 2020/2021	-64.12 (-122.88- -5.35) p = 0.032	-36.04 (-111.23-39.14) p = 0.347	-74.66 (-242.37-93.06) p = 0.383
Year collected: 2021/2022	-43.82 (-80.08- -7.55) p = 0.018	-42.45 (-88.83-3.92) p = 0.073	-71.12 (-173.83-31.59) p = 0.175

Table 22. Outcome: Fat intake; SFS-mandated status – Year group interaction included as coefficient

Coefficient	Fat intake (g) Lunch	Fat intake (g) School day	Fat intake (g) 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-1.67 (-4.34-1.00) p = 0.221	-0.15 (-3.69-3.39) p = 0.934	-4.65 (-11.29-1.99) p = 0.169
Year: 9	-3.13 (-7.76-1.50) p = 0.185	-7.05 (-13.12- -0.98) p = 0.023	-9.21 (-20.11-1.69) p = 0.098
Year: 10	-3.38 (-9.95-3.20) p = 0.314	-7.10 (-15.71-1.51) p = 0.106	-6.13 (-21.58-9.31) p = 0.436
SFS Mandate and Year 9 Interaction	-0.97 (-4.60-2.66) p = 0.601	-0.34 (-5.16-4.48) p = 0.889	7.27 (-1.37-15.92) p = 0.099
SFS Mandate and Year 10 Interaction	-0.56 (-4.20-3.07) p = 0.761	-3.31 (-8.14-1.53) p = 0.180	-2.34 (-10.98-6.31) p = 0.596
Sex: Male	1.64 (0.16-3.11) p = 0.030	2.27 (0.33-4.22) p = 0.022	7.35 (3.86-10.84) p < .001
Sex: Other	-0.21 (-4.31-3.89) p = 0.920	-1.21 (-6.63-4.21) p = 0.662	-9.49 (-18.92- -0.07) p = 0.048
Age	1.06 (-1.04-3.16) p = 0.321	2.69 (-0.07-5.44) p = 0.056	3.23 (-1.72-8.18) p = 0.202
Ethnicity: Asian/Asian British	0.18 (-1.82-2.17) p = 0.860	-0.51 (-3.15-2.14) p = 0.707	0.35 (-4.44-5.13) p = 0.888
Ethnicity: Black/African/Caribbean/Black British	2.06 (-1.25-5.36) p = 0.222	2.21 (-2.17-6.60) p = 0.322	1.34 (-6.43-9.10) p = 0.736
Ethnicity: Mixed/Multiple	-2.05 (-5.13-1.04) p = 0.193	-4.62 (-8.71- -0.53) p = 0.027	-2.84 (-10.16-4.48) p = 0.447
Ethnicity: Other	8.96 (4.92-13.01) p < .001	11.78 (6.53-17.03) p < .001	9.65 (0.43-18.87) p = 0.040
IMD Quintile: 2	3.00 (0.68-5.33) p = 0.011	1.98 (-1.08-5.04) p = 0.205	2.61 (-2.85-8.06) p = 0.349
IMD Quintile: 3	1.86 (-0.52-4.23) p = 0.126	0.96 (-2.19-4.11) p = 0.550	-1.66 (-7.31-3.98) p = 0.564
IMD Quintile: 4	2.07 (-0.44-4.59) p = 0.106	3.41 (0.09-6.74) p = 0.044	1.81 (-4.18-7.79) p = 0.554
IMD Quintile: 5	2.62 (0.11-5.14) p = 0.041	2.63 (-0.70-5.96) p = 0.121	2.25 (-3.79-8.29) p = 0.464
Source of Lunch: 100% School Provided	-5.06 (-6.43- -3.70) p < .001	-2.70 (-4.48- -0.92) p = 0.003	-0.44 (-3.61-2.73) p = 0.785
Percent FSM	-0.03 (-0.12-0.07) p = 0.587	-0.02 (-0.14-0.10) p = 0.732	0.002 (-0.23-0.23) p = 0.986
School Level IDACI	0.09 (0.004-0.19) p = 0.040	0.08 (-0.03-0.20) p = 0.168	0.11 (-0.13-0.34) p = 0.368
Sixth Form: Yes	-1.68 (-3.36- -0.009) p = 0.049	-0.54 (-2.70-1.62) p = 0.625	-0.85 (-5.18-3.47) p = 0.699
Provision: External	0.25 (-1.28-1.78) p = 0.745	1.52 (-0.45-3.49) p = 0.131	1.80 (-2.11-5.71) p = 0.367
Religious: Secular	3.36 (0.66-6.05) p = 0.015	5.22 (1.75-8.68) p = 0.003	5.07 (-2.00-12.14) p = 0.160
Year collected: 2020/2021	-2.59 (-5.37-0.19) p = 0.068	-1.28 (-4.88-2.31) p = 0.484	-1.38 (-8.51-5.76) p = 0.705
Year collected: 2021/2022	-2.68 (-4.40- -0.96) p = 0.002	-2.66 (-4.88- -0.44) p = 0.019	-2.96 (-7.34-1.43) p = 0.186

Table 23. Outcome: Fibre intake; SFS-mandated status – Year group interaction included as coefficient

Coefficient	Fibre intake (g) Lunch	Fibre intake (g) School day	Fibre intake (g) 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	0.08 (-0.53-0.69) p = 0.790	0.19 (-0.53-0.92) p = 0.600	-0.81 (-2.40-0.78) p = 0.318
Year: 9	-0.62 (-1.57-0.33) p = 0.199	-1.33 (-2.50- -0.15) p = 0.027	-1.46 (-3.82-0.89) p = 0.223
Year: 10	-0.91 (-2.26-0.44) p = 0.186	-1.44 (-3.11-0.23) p = 0.092	-1.14 (-4.49-2.20) p = 0.503
SFS Mandate and Year 9 Interaction	-0.71 (-1.43-0.02) p = 0.055	-0.42 (-1.33-0.50) p = 0.371	0.44 (-1.38-2.27) p = 0.633
SFS Mandate and Year 10 Interaction	-0.29 (-1.01-0.44) p = 0.440	-0.66 (-1.58-0.26) p = 0.159	-0.88 (-2.70-0.95) p = 0.347
Sex: Male	0.17 (-0.13-0.47) p = 0.280	0.29 (-0.09-0.66) p = 0.131	1.14 (0.39-1.89) p = 0.003
Sex: Other	-0.16 (-0.98-0.65) p = 0.696	-0.40 (-1.43-0.63) p = 0.447	-1.54 (-3.53-0.44) p = 0.128
Age	0.22 (-0.21-0.65) p = 0.322	0.46 (-0.08-1.00) p = 0.092	0.47 (-0.60-1.55) p = 0.386
Ethnicity: Asian/Asian British	0.07 (-0.35-0.48) p = 0.755	-0.17 (-0.69-0.34) p = 0.506	-0.04 (-1.09-1.00) p = 0.936
Ethnicity: Black/African/Caribbean/Black British	0.16 (-0.50-0.83) p = 0.628	-0.09 (-0.92-0.75) p = 0.841	-0.41 (-2.06-1.25) p = 0.630
Ethnicity: Mixed/Multiple	-0.27 (-0.89-0.34) p = 0.383	-0.73 (-1.50-0.05) p = 0.066	-0.55 (-2.10-1.00) p = 0.487
Ethnicity: Other	1.42 (0.61-2.23) p = 0.001	1.25 (0.25-2.25) p = 0.014	-0.37 (-2.32-1.58) p = 0.712
IMD Quintile: 2	0.21 (-0.26-0.68) p = 0.375	0.19 (-0.39-0.78) p = 0.521	0.40 (-0.76-1.57) p = 0.497
IMD Quintile: 3	0.10 (-0.39-0.59) p = 0.684	0.02 (-0.59-0.63) p = 0.947	0.35 (-0.87-1.56) p = 0.576
IMD Quintile: 4	0.18 (-0.34-0.69) p = 0.498	0.45 (-0.19-1.10) p = 0.166	0.90 (-0.39-2.19) p = 0.172
IMD Quintile: 5	0.29 (-0.23-0.81) p = 0.268	0.39 (-0.25-1.04) p = 0.233	1.52 (0.21-2.83) p = 0.023
Source of Lunch: 100% School Provided	-1.37 (-1.64- -1.09) p < .001	-0.84 (-1.18- -0.50) p < .001	-0.12 (-0.79-0.54) p = 0.713
Percent FSM	-0.02 (-0.04-0.003) p = 0.090	-0.03 (-0.05-0.001) p = 0.061	-0.04 (-0.10-0.03) p = 0.257
School Level IDACI	0.02 (-0.008-0.04) p = 0.191	0.02 (-0.010-0.04) p = 0.205	0.03 (-0.03-0.10) p = 0.350
Sixth Form: Yes	0.16 (-0.31-0.62) p = 0.511	0.41 (-0.09-0.92) p = 0.111	0.64 (-0.60-1.87) p = 0.312
Provision: External	0.005 (-0.41-0.42) p = 0.982	0.30 (-0.16-0.76) p = 0.204	0.24 (-0.86-1.35) p = 0.667
Religious: Secular	0.22 (-0.54-0.98) p = 0.571	0.86 (0.03-1.69) p = 0.041	0.72 (-1.32-2.76) p = 0.491
Year collected: 2020/2021	0.24 (-0.52-1.00) p = 0.539	0.27 (-0.56-1.11) p = 0.520	-0.04 (-2.05-1.97) p = 0.968
Year collected: 2021/2022	-0.44 (-0.90-0.02) p = 0.063	-0.51 (-1.02-0.003) p = 0.052	-1.04 (-2.26-0.18) p = 0.095

Table 24. Outcome: Fruit and vegetable (F&V) intake; SFS-mandated status – Year group interaction included as coefficient

Coefficient	F&V portions Lunch	F&V portions School day	F&V portions 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	-0.21 (-0.40- -0.03) p = 0.025	-0.19 (-0.40-0.02) p = 0.073	-0.32 (-0.73-0.10) p = 0.131
Year: 9	-0.07 (-0.37-0.23) p = 0.651	-0.13 (-0.49-0.22) p = 0.471	-0.39 (-1.02-0.23) p = 0.215
Year: 10	-0.25 (-0.68-0.18) p = 0.252	-0.22 (-0.72-0.29) p = 0.402	-0.49 (-1.38-0.39) p = 0.274
SFS Mandate and Year 9 Interaction	-0.17 (-0.40-0.07) p = 0.163	-0.11 (-0.39-0.17) p = 0.446	0.03 (-0.45-0.52) p = 0.903
SFS Mandate and Year 10 Interaction	0.09 (-0.14-0.33) p = 0.429	0.07 (-0.21-0.35) p = 0.634	-0.13 (-0.61-0.36) p = 0.613
Sex: Male	-0.04 (-0.14-0.05) p = 0.391	-0.03 (-0.14-0.09) p = 0.636	-0.04 (-0.23-0.16) p = 0.723
Sex: Other	-0.16 (-0.42-0.11) p = 0.239	-0.26 (-0.58-0.05) p = 0.102	-0.47 (-1.00-0.06) p = 0.082
Age	0.05 (-0.09-0.19) p = 0.471	0.04 (-0.12-0.20) p = 0.619	0.15 (-0.14-0.43) p = 0.308
Ethnicity: Asian/Asian British	-0.04 (-0.17-0.09) p = 0.523	-0.07 (-0.23-0.08) p = 0.358	-0.10 (-0.38-0.17) p = 0.472
Ethnicity: Black/African/Caribbean/Black British	0.02 (-0.19-0.24) p = 0.822	-0.01 (-0.27-0.24) p = 0.936	0.04 (-0.39-0.48) p = 0.841
Ethnicity: Mixed/Multiple	0.02 (-0.18-0.22) p = 0.853	-0.05 (-0.29-0.19) p = 0.674	-0.11 (-0.52-0.31) p = 0.614
Ethnicity: Other	0.17 (-0.09-0.43) p = 0.208	0.18 (-0.12-0.49) p = 0.242	-0.13 (-0.65-0.38) p = 0.610
IMD Quintile: 2	-0.005 (-0.16-0.15) p = 0.947	-0.02 (-0.20-0.16) p = 0.825	0.12 (-0.19-0.43) p = 0.456
IMD Quintile: 3	0.007 (-0.15-0.16) p = 0.929	0.001 (-0.18-0.19) p = 0.989	0.24 (-0.08-0.57) p = 0.139
IMD Quintile: 4	-0.01 (-0.18-0.15) p = 0.877	-0.02 (-0.21-0.18) p = 0.869	0.14 (-0.21-0.48) p = 0.438
IMD Quintile: 5	-0.02 (-0.18-0.15) p = 0.845	0.03 (-0.17-0.23) p = 0.763	0.25 (-0.09-0.60) p = 0.153
Source of Lunch: 100% School Provided	-0.26 (-0.34- -0.17) p < .001	-0.20 (-0.30- -0.09) p < .001	0.006 (-0.17-0.18) p = 0.944
Percent FSM	-0.01 (-0.02- -0.004) p = 0.002	-0.01 (-0.02- -0.007) p < .001	-0.03 (-0.04- -0.009) p = 0.002
School Level IDACI	0.005 (-0.002-0.01) p = 0.162	0.006 (-0.001-0.01) p = 0.106	0.009 (-0.007-0.03) p = 0.263
Sixth Form: Yes	0.03 (-0.10-0.16) p = 0.680	0.07 (-0.06-0.21) p = 0.282	0.11 (-0.20-0.43) p = 0.481
Provision: External	0.06 (-0.06-0.18) p = 0.310	0.11 (-0.01-0.23) p = 0.079	0.09 (-0.19-0.37) p = 0.535
Religious: Secular	0.10 (-0.12-0.31) p = 0.384	0.21 (-0.007-0.43) p = 0.057	0.30 (-0.22-0.81) p = 0.263
Year collected: 2020/2021	0.04 (-0.18-0.25) p = 0.736	0.04 (-0.19-0.27) p = 0.731	0.10 (-0.41-0.61) p = 0.699
Year collected: 2021/2022	0.11 (-0.02-0.25) p = 0.092	0.11 (-0.03-0.25) p = 0.124	0.05 (-0.26-0.36) p = 0.745

Table 25. Outcome: number of sugar sweetened beverages (SSB) consumed (Poisson models); SFS-mandated status – Year group interaction included as coefficient

Coefficient	SSB items Incidence Rate Ratio Lunch	SSB items Incidence Rate Ratio School day	SSB items Incidence Rate Ratio 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	0.99 (0.65-1.52) p = 0.965	0.99 (0.64-1.55) p = 0.980	1.09 (0.78-1.53) p = 0.605
Year: 9	0.70 (0.31-1.58) p = 0.395	0.80 (0.37-1.73) p = 0.570	1.09 (0.64-1.85) p = 0.754
Year: 10	0.58 (0.18-1.85) p = 0.358	0.79 (0.26-2.38) p = 0.675	0.99 (0.47-2.12) p = 0.987
SFS Mandate and Year 9 Interaction	1.09 (0.60-2.00) p = 0.775	1.32 (0.75-2.33) p = 0.335	1.27 (0.86-1.87) p = 0.225
SFS Mandate and Year 10 Interaction	1.34 (0.72-2.50) p = 0.354	1.22 (0.67-2.22) p = 0.506	1.30 (0.87-1.95) p = 0.206
Sex: Male	0.88 (0.68-1.14) p = 0.345	0.94 (0.74-1.21) p = 0.656	0.93 (0.79-1.10) p = 0.394
Sex: Other	1.10 (0.55-2.19) p = 0.784	1.20 (0.63-2.31) p = 0.578	0.93 (0.59-1.47) p = 0.748
Age	1.03 (0.71-1.50) p = 0.860	0.91 (0.64-1.29) p = 0.591	0.84 (0.66-1.07) p = 0.168
Ethnicity: Asian/Asian British	0.66 (0.44-1.01) p = 0.054	0.76 (0.52-1.12) p = 0.165	0.78 (0.60-1.00) p = 0.047
Ethnicity: Black/African/Caribbean/Black British	0.92 (0.52-1.63) p = 0.779	1.07 (0.63-1.81) p = 0.796	0.86 (0.59-1.26) p = 0.446
Ethnicity: Mixed/Multiple	0.71 (0.39-1.28) p = 0.253	0.85 (0.50-1.42) p = 0.528	0.84 (0.59-1.19) p = 0.321
Ethnicity: Other	1.07 (0.58-1.94) p = 0.836	0.94 (0.50-1.75) p = 0.841	0.73 (0.46-1.16) p = 0.183
IMD Quintile: 2	0.85 (0.58-1.24) p = 0.391	0.96 (0.67-1.37) p = 0.808	1.03 (0.80-1.32) p = 0.812
IMD Quintile: 3	0.72 (0.48-1.09) p = 0.120	0.80 (0.54-1.17) p = 0.249	0.93 (0.71-1.21) p = 0.598
IMD Quintile: 4	0.75 (0.49-1.17) p = 0.205	0.81 (0.53-1.23) p = 0.314	1.04 (0.79-1.39) p = 0.766
IMD Quintile: 5	0.57 (0.35-0.91) p = 0.019	0.72 (0.47-1.11) p = 0.141	0.74 (0.55-1.00) p = 0.047
Source of Lunch: 100% School Provided	0.88 (0.69-1.13) p = 0.333	1.04 (0.83-1.30) p = 0.743	1.23 (1.06-1.43) p = 0.007
Percent FSM	1.00 (0.98-1.02) p = 0.915	1.00 (0.98-1.02) p = 0.784	1.00 (0.99-1.01) p = 0.888
School Level IDACI	1.01 (0.99-1.03) p = 0.220	1.01 (1.00-1.03) p = 0.133	1.01 (1.00-1.03) p = 0.072
Sixth Form: Yes	1.15 (0.86-1.55) p = 0.346	1.21 (0.86-1.70) p = 0.280	1.15 (0.87-1.51) p = 0.320
Provision: External	1.05 (0.80-1.39) p = 0.712	0.92 (0.68-1.25) p = 0.602	0.96 (0.75-1.22) p = 0.717
Religious: Secular	2.01 (1.06-3.81) p = 0.032	2.45 (1.26-4.78) p = 0.008	1.24 (0.78-1.96) p = 0.366
Year collected: 2020/2021	0.83 (0.50-1.36) p = 0.454	0.89 (0.51-1.57) p = 0.696	1.16 (0.75-1.81) p = 0.501
Year collected: 2021/2022	0.65 (0.49-0.87) p = 0.004	0.70 (0.50-0.97) p = 0.031	0.86 (0.66-1.13) p = 0.276

Table 26. Outcome: number of high fat, sugar and salt (HFSS) items consumed (Poisson models); SFS-mandated status – Year group interaction included as coefficient

Coefficient	HFSS items Incidence Rate Ratio Lunch	HFSS items Incidence Rate Ratio School day	HFSS items Incidence Rate Ratio 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	0.94 (0.80-1.10) p = 0.448	1.02 (0.89-1.16) p = 0.814	1.00 (0.90-1.12) p = 0.963
Year: 9	0.98 (0.74-1.29) p = 0.876	0.92 (0.73-1.16) p = 0.490	0.97 (0.81-1.17) p = 0.781
Year: 10	0.96 (0.65-1.43) p = 0.858	0.92 (0.67-1.28) p = 0.628	0.98 (0.76-1.27) p = 0.891
SFS Mandate and Year 9 Interaction	0.92 (0.74-1.14) p = 0.461	0.90 (0.75-1.08) p = 0.245	0.96 (0.84-1.11) p = 0.592
SFS Mandate and Year 10 Interaction	1.01 (0.82-1.25) p = 0.920	0.96 (0.80-1.15) p = 0.670	0.99 (0.86-1.14) p = 0.916
Sex: Male	0.87 (0.80-0.95) p = 0.003	0.89 (0.83-0.96) p = 0.002	0.93 (0.88-0.99) p = 0.020
Sex: Other	1.02 (0.81-1.29) p = 0.859	0.91 (0.74-1.11) p = 0.347	0.79 (0.67-0.93) p = 0.004
Age	0.97 (0.86-1.10) p = 0.661	1.01 (0.91-1.12) p = 0.870	0.99 (0.91-1.07) p = 0.755
Ethnicity: Asian/Asian British	0.83 (0.74-0.95) p = 0.004	0.84 (0.76-0.93) p = 0.001	0.88 (0.81-0.95) p = 0.002
Ethnicity: Black/African/Caribbean/Black British	0.78 (0.62-0.99) p = 0.041	0.92 (0.77-1.09) p = 0.327	0.91 (0.80-1.04) p = 0.169
Ethnicity: Mixed/Multiple	0.87 (0.72-1.06) p = 0.166	0.87 (0.75-1.02) p = 0.097	0.87 (0.77-0.99) p = 0.030
Ethnicity: Other	1.15 (0.92-1.43) p = 0.223	1.05 (0.87-1.27) p = 0.636	1.04 (0.89-1.20) p = 0.635
IMD Quintile: 2	1.04 (0.90-1.19) p = 0.632	1.07 (0.95-1.20) p = 0.249	1.04 (0.95-1.14) p = 0.377
IMD Quintile: 3	1.07 (0.93-1.23) p = 0.346	1.10 (0.98-1.24) p = 0.111	1.06 (0.97-1.17) p = 0.193
IMD Quintile: 4	1.16 (1.00-1.34) p = 0.052	1.19 (1.05-1.35) p = 0.006	1.14 (1.03-1.25) p = 0.010
IMD Quintile: 5	1.13 (0.97-1.31) p = 0.119	1.19 (1.05-1.35) p = 0.008	1.14 (1.04-1.26) p = 0.008
Source of Lunch: 100% School Provided	0.55 (0.50-0.60) p < .001	0.70 (0.65-0.75) p < .001	0.90 (0.85-0.95) p < .001
Percent FSM	0.99 (0.99-1.00) p = 0.015	1.00 (0.99-1.00) p = 0.148	1.00 (1.00-1.00) p = 0.741
School Level IDACI	1.01 (1.00-1.02) p < .001	1.01 (1.00-1.01) p = 0.021	1.00 (1.00-1.01) p = 0.192
Sixth Form: Yes	0.97 (0.88-1.08) p = 0.600	1.03 (0.95-1.12) p = 0.526	1.01 (0.94-1.09) p = 0.752
Provision: External	1.04 (0.95-1.14) p = 0.404	1.02 (0.95-1.10) p = 0.573	1.01 (0.95-1.09) p = 0.670
Religious: Secular	1.30 (1.08-1.56) p = 0.005	1.18 (1.02-1.36) p = 0.024	1.00 (0.88-1.13) p = 0.990
Year collected: 2020/2021	0.86 (0.72-1.02) p = 0.078	0.95 (0.83-1.09) p = 0.493	0.98 (0.87-1.11) p = 0.806
Year collected: 2021/2022	0.88 (0.80-0.98) p = 0.020	0.88 (0.81-0.96) p = 0.005	0.93 (0.86-1.00) p = 0.055

Table 27. Outcome: number of confectionery items consumed (Poisson models); SFS-mandated status – Year group interaction included as coefficient

Coefficient	Confectionery items Incidence Rate Ratio Lunch	Confectionery items Incidence Rate Ratio School day	Confectionery items Incidence Rate Ratio 24-hour day
Pupils	1,878	1,934	2,045
Schools	36	36	36
SFS Status: Mandated	1.04 (0.69-1.57) p = 0.863	1.35 (0.99-1.85) p = 0.057	1.17 (0.92-1.50) p = 0.199
Year: 9	0.80 (0.38-1.67) p = 0.553	1.15 (0.66-1.98) p = 0.621	1.19 (0.78-1.80) p = 0.422
Year: 10	0.67 (0.24-1.90) p = 0.451	1.16 (0.53-2.52) p = 0.707	1.38 (0.77-2.48) p = 0.280
SFS Mandate and Year 9 Interaction	0.79 (0.44-1.43) p = 0.433	0.75 (0.49-1.16) p = 0.201	0.89 (0.64-1.24) p = 0.478
SFS Mandate and Year 10 Interaction	1.03 (0.57-1.84) p = 0.922	0.96 (0.63-1.47) p = 0.844	0.80 (0.57-1.12) p = 0.193
Sex: Male	0.81 (0.64-1.03) p = 0.084	0.80 (0.67-0.95) p = 0.013	0.72 (0.63-0.83) p < .001
Sex: Other	0.42 (0.17-1.05) p = 0.064	0.56 (0.31-1.02) p = 0.056	0.44 (0.28-0.70) p = 0.001
Age	1.07 (0.77-1.50) p = 0.678	0.96 (0.75-1.22) p = 0.718	0.93 (0.77-1.12) p = 0.417
Ethnicity: Asian/Asian British	0.78 (0.55-1.10) p = 0.159	0.77 (0.60-1.00) p = 0.054	0.75 (0.62-0.91) p = 0.004
Ethnicity: Black/African/Caribbean/Black British	0.67 (0.32-1.40) p = 0.287	0.96 (0.62-1.51) p = 0.872	0.81 (0.58-1.13) p = 0.211
Ethnicity: Mixed/Multiple	0.80 (0.47-1.39) p = 0.431	1.03 (0.71-1.48) p = 0.892	0.86 (0.64-1.15) p = 0.311
Ethnicity: Other	1.01 (0.53-1.91) p = 0.987	1.21 (0.77-1.88) p = 0.407	0.91 (0.64-1.31) p = 0.623
IMD Quintile: 2	1.25 (0.84-1.86) p = 0.275	1.30 (0.98-1.73) p = 0.068	1.21 (0.97-1.50) p = 0.084
IMD Quintile: 3	1.34 (0.90-1.99) p = 0.144	1.39 (1.05-1.86) p = 0.023	1.29 (1.03-1.60) p = 0.023
IMD Quintile: 4	1.62 (1.08-2.44) p = 0.020	1.41 (1.04-1.91) p = 0.029	1.24 (0.98-1.57) p = 0.070
IMD Quintile: 5	1.36 (0.89-2.05) p = 0.151	1.37 (1.01-1.87) p = 0.044	1.41 (1.12-1.78) p = 0.004
Source of Lunch: 100% School Provided	0.15 (0.11-0.22) p < .001	0.34 (0.28-0.41) p < .001	0.68 (0.59-0.77) p < .001
Percent FSM	1.00 (0.98-1.01) p = 0.703	1.00 (0.99-1.01) p = 0.831	1.01 (1.00-1.02) p = 0.071
School Level IDACI	1.01 (0.99-1.02) p = 0.397	1.00 (0.99-1.01) p = 0.704	1.00 (0.99-1.00) p = 0.334
Sixth Form: Yes	1.18 (0.92-1.51) p = 0.204	1.23 (1.01-1.49) p = 0.035	1.09 (0.95-1.27) p = 0.224
Provision: External	0.94 (0.74-1.19) p = 0.586	0.99 (0.83-1.18) p = 0.876	0.99 (0.87-1.13) p = 0.865
Religious: Secular	1.89 (1.12-3.17) p = 0.016	1.07 (0.78-1.48) p = 0.663	0.86 (0.68-1.08) p = 0.195
Year collected: 2020/2021	0.80 (0.52-1.26) p = 0.340	0.93 (0.67-1.29) p = 0.674	0.87 (0.68-1.12) p = 0.275
Year collected: 2021/2022	0.95 (0.73-1.23) p = 0.693	0.84 (0.69-1.02) p = 0.078	0.86 (0.74-0.99) p = 0.041