Appendix 4. Sensitivity Analyses

1. Restricting the samples to the White population only:

Table A4.1 - Regression analysis of the association between oral health and SEP, England and the US, White population

Oral health outcome and SEP level	Education		Income	
	England	US	England	US
	PR or IRR (95% CI)		PR or IRR (95% CI)	
Number of missing teeth [a]				
High (Ref)	1.00	1.00	1.00	1.00
Medium	1.26 (1.19, 1.33)	1.40 (1.29, 1.52)	1.18 (1.11, 1.24)	1.19 (1.12, 1.27)
Low	1.52 (1.43, 1.63)	1.93 (1.76, 2.12)	1.39 (1.31, 1.47)	1.49 (1.40, 1.59)
p-value for trend	<0.001	<0.001	<0.001	<0.001
Self-rated oral health [b]				
High (Ref)	1.00	1.00	1.00	1.00
Medium	1.35 (1.21, 1.52)	2.34 (1.94, 2.81)	1.25 (1.12, 1.40)	1.52 (1.31, 1.77)
Low	1.60 (1.41, 1.81)	3.42 (2.84, 4.13)	1.47 (1.32, 1.63)	2.25 (1.86, 2.72)
p-value for trend	<0.001	<0.001	<0.001	<0.001
Oral impacts [b]				
High (Ref)	1.00	1.00	1.00	1.00
Medium	1.69 (1.42, 2.01)	1.72 (1.38, 2.15)	1.33 (1.08, 1.64)	1.92 (1.52, 2.44)
Low	2.15 (1.74, 2.65)	2.96 (2.15, 4.07)	1.83 (1.54, 2.19)	2.81 (2.14, 3.69)
p-value for trend	<0.001	<0.001	<0.001	<0.001

[a] Estimates reported are incidence rate ratios (IRRs).
[b] Estimates reported are prevalence ratios (PRs).

Table A4.2 – Relative socioeconomic inequalities in oral health measures, England and the US - White population

	Education		Income	
	England	US	England	US
	RII (95% CI)		RII (95% CI)	
Number of missing teeth	1.71 (1.57, 1.87)	2.32 (2.05, 2.62)	1.67 (1.52, 1.83)	1.88 (1.71, 2.07)
Self-rated oral health	1.83 (1.57, 2.14)	4.64 (3.82, 5.64)	1.80 (1.53, 2.13)	3.56 (2.67, 4.74)
Oral impacts	2.62 (2.04, 3.37)	4.04 (2.67, 6.11)	2.60 (1.98, 3.41)	4.82 (3.23, 7.17)

RII: Relative Index of Inequality

Table A4.3 – Absolute socioeconomic inequalities in oral health measures, England and the US - White population

	Education		Income	
	England	US	England	US
	SII (95% CI)		SII (95% CI)	
Number of missing teeth	4.16 (3.49, 4.84)	6.05 (4.98, 7.12)	3.51 (2.86, 4.16)	4.86 (3.98, 5.75)
Self-rated oral health	18.23 (13.49, 22.98)	40.23 (34.63, 45.83)	18.59 (13.38, 23.81)	34.95 (26.39, 43.51)
Oral impacts	13.67 (10.12, 17.21)	16.96 (11.88, 22.05)	14.97 (11.14, 18.80)	20.32 (14.70, 25.93)

SII: Slope Index of Inequality

2. Estimates of inequalities in self-rated oral health and oral impacts (the two subjective outcomes), restricting the sample to dentate participants.

Table A4.4 - Regression analysis of the association between subjective oral health measures and SEP level, England and the US - Dentate participants

Oral health outcome and SEP level	Education		Income	
	England	US	England	US
	PR (95% CI)			
Self-rated oral health				
High (Ref)	1.00	1.00	1.00	1.00
Medium	1.37 (1.23, 1.52)	2.13 (1.82, 2.49)	1.25 (1.11, 1.40)	1.46 (1.30, 1.64)
Low	1.63 (1.46, 1.82)	3.06 (2.64, 3.54)	1.52 (1.37, 1.70)	2.04 (1.78, 2.33)
P for trend	<0.001	<0.001	<0.001	<0.001
Oral impacts				
High (Ref)	1.00	1.00	1.00	1.00
Medium	1.72 (1.48, 2.01)	1.83 (1.50, 2.23)	1.37 (1.11, 1.68)	1.80 (1.37, 2.37)
Low	2.11 (1.72, 2.59)	2.78 (2.22, 3.49)	1.88 (1.57, 2.25)	2.69 (2.09, 3.46)
P for trend	<0.001	<0.001	<0.001	<0.001

All models are weighted and adjusted for age, gender, ethnicity, and marital status.
Estimates reported are prevalence ratios (PRs).

Table A4.5 - Relative and absolute inequalities in self-rated oral health and oral impacts,
England and the US - Dentate participants

	Education		Income	
	Self-rated oral health	Oral impacts	Self-rated oral health	Oral impacts
RII (95% CI)				
England	1.90 (1.65, 2.19)	2.63 (2.06, 3.36)	1.93 (1.63, 2.27)	2.67 (2.03, 3.53)
US	3.95 (3.44, 4.54)	3.74 (2.83, 4.95)	3.03 (2.47, 3.71)	4.52 (3.21, 6.36)
SII (95% CI)				
England	19.80 (15.29, 24.31)	14.37 (10.82, 17.93)	20.25 (14.96, 25.53)	15.24 (11.16, 19.31)
US	44.91 (39.80, 50.02)	17.82 (14.28, 21.37)	35.13 (28.39, 41.86)	20.32 (15.31, 25.32)

RII: Relative Index of Inequality, SII: Slope Index of Inequality

3. Estimates using imputed income data in England

Table A4.6 - Regression analysis of the association between income and oral health, England and the US

Oral health outcome and income level	Household income	
	England	US
	PR or IRR (95% CI)	
Number of missing teeth [a]		
High (Ref)	1.00	1.00
Medium	1.18 (1.11, 1.24)	1.14 (1.08, 1.21)
Low	1.33 (1.24, 1.43)	1.33 (1.24, 1.42)
P for trend	<0.001	<0.001
Self-rated oral health (less than good)[b]		
High (Ref)	1.00	1.00
Medium	1.27 (1.15, 1.42)	1.51 (1.36, 1.67)
Low	1.49 (1.35, 1.65)	2.00 (1.78, 2.25)
P for trend	<0.001	<0.001
Reporting ≥1 Oral impact [b]		
High (Ref)	1.00	1.00
Medium	1.38 (1.15, 1.65)	1.78 (1.41, 2.23)
Low	1.95 (1.64, 2.32)	2.49 (1.96, 3.17)
P for trend	<0.001	<0.001

All models are weighted and adjusted for age, gender, ethnicity, and marital status.
[a] Estimates reported are incidence rate ratios (IRRs).
[b] Estimates reported are prevalence ratios (PRs).

Table A4.7 - Relative and absolute income-related inequalities in oral health, England and the US

	Number of missing teeth	Self-rated oral health	Oral impacts
RII (95% CI)			
England	1.56 (1.41, 1.73)	1.81 (1.56, 2.12)	2.72 (2.10, 3.52)
US	1.60 (1.44, 1.78)	2.88 (2.43, 3.42)	3.97 (2.85, 5.52)
SII (95% CI)			
England	2.92 (2.24, 3.60)	18.38 (13.41, 23.36)	15.84 (11.89, 19.79)
US	3.61 (2.77, 4.44)	33.57 (27.88, 39.26)	18.76 (14.14, 23.41)

RII: Relative Index of Inequality, SII: Slope Index of Inequality