

Table 1. Outcomes of multivariate modelling, smoking-plaque effect modification (model 3), familial risk-plaque effect modification (model 4), and smoking- familial risk effect modification (model 5) for proband prevalence of one or more sites with 4+mm combined attachment loss at age 32 (one or both parents in).

	RR 1+ sites with 4+mm CAL at age 32 (95% CI)					
	Unadjusted	Adjusted Model 1	Adjusted Model 2	Adjusted Model 3	Adjusted Model 4	Adjusted Model 5
Predisposing factors at 32						
Male	1.43 (1.15,1.77)	1.44 (1.16,1.78)	1.22 (0.97,1.52)	1.26 (1.01,1.57)	1.12 (0.97,1.50)	1.24 (0.99,1.54)
Medium SES	0.70 (0.57,0.87)	1.09 (0.77,1.54)	0.88 (0.62,1.23)	0.91 (0.65,1.28)	0.88 (0.63,1.24)	0.90 (0.64,1.26)
Low SES	1.74 (1.42,2.14)	1.84 (1.32,2.57)	1.17 (0.83,1.65)	1.27 (0.91,1.78)	1.16 (0.82,1.64)	1.25 (0.89,1.75)
Episodic attendance	1.47 (1.17,1.84)		1.01 (0.80,1.27)	1.00 (0.79,1.26)	1.00 (0.80,1.26)	1.00 (0.80,1.26)
Moderate plaque trajectory at age 32	1.19 (0.96,1.47)		1.41 (1.08,1.85)			1.44 (1.10,1.89)
High plaque trajectory at age 32	2.19 (1.77,2.71)		1.68 (1.19,2.37)			1.81 (1.30,2.53)
Pack-years to age 32, per pack year	1.07 (1.06,1.08)		1.05 (1.04,1.07)		1.05 (1.04,1.07)	
Non-smoker*moderate plaque trajectory	0.62 (0.48,0.80)			1.20 (0.83,1.74)		
Non-smoker*high plaque trajectory	1.42 (0.94,2.15)			2.03 (1.17,3.53)		
Smoker* low plaque trajectory	0.92 (0.63,1.36)			1.64 (1.02,2.62)		
Smoker*moderate plaque trajectory	2.20 (1.80,2.69)			2.95 (2.09,4.15)		
Smoker*high plaque trajectory	2.46 (1.98,3.06)			3.21 (2.17,4.74)		
Low familial risk*moderate plaque trajectory	0.95 (0.77,1.18)				1.29 (0.96,1.75)	
Low familial risk*high plaque trajectory	2.21 (1.76,2.77)				1.76 (1.22,2.54)	
High familial risk*low plaque trajectory	0.57 (0.31,1.05)				0.98 (0.53,1.81)	
High familial risk*moderate plaque trajectory	1.65 (1.27,2.15)				1.93 (1.37,2.72)	
High familial risk*high plaque trajectory	1.73 (1.12,2.66)				1.60 (0.93,2.77)	
Non-smoker*high familial risk	0.80 (0.55,1.17)					1.28 (0.87,1.88)
Smoker*low familial risk	2.03 (1.66,2.48)					2.10 (1.62,2.71)
Smoker*high familial risk	2.07 (1.61,2.65)					2.49 (1.82,3.41)
High familial-risk for periodontal disease	1.33 (1.05,1.69)	1.32 (1.05,1.67)	1.24 (0.98,1.55)	1.23 (0.98,1.54)		

Reference categories: male (female, coded 0), medium or low SES at age 32 (high SES coded 0), episodic user of dental services at age 32 (routine user of dental services at age 32, coded 0), moderate or high plaque trajectory (low plaque trajectory coded 0), non-smoker*moderate plaque trajectory, non-smoker*high plaque trajectory, smoker*low plaque trajectory, smoker*moderate plaque trajectory or smoker*high plaque trajectory (non-smoker*low plaque trajectory coded 0), low familial risk*moderate plaque trajectory, low familial risk*high plaque trajectory, high familial risk*low plaque trajectory, high familial risk*moderate plaque trajectory or high familial risk*high plaque trajectory (low familial risk*moderate plaque trajectory coded 0), non-smoker*high familial risk, smoker*low familial risk or smoker*high familial risk (non-smoker*low familial risk coded 0), high familial-risk for periodontal disease (low familial-risk for periodontal disease coded 0).

CAL, combined attachment loss; RR, relative risk; CI, confidence interval; SES, socioeconomic status. Significant findings in bold type.

Table 2. Outcomes of multivariate modelling, smoking-plaque effect modification (model 3), familial risk-plaque effect modification (model 4), and smoking- familial risk effect modification (model 5) for proband prevalence of two or more sites with 4+mm combined attachment loss at age 32 (one or both parents in).

	RR 2+ sites with 4+mm CAL at age 32 (95% CI)					
	Unadjusted	Adjusted Model 1	Adjusted Model 2	Adjusted Model 3	Adjusted Model 4	Adjusted Model 5
Predisposing factors at 32						
Male	1.45 (1.10,1.92)	1.46 (1.11,1.93)	1.12 (0.84,1.49)	1.16 (0.87,1.54)	1.11 (0.84,1.48)	1.15 (0.87,1.53)
Medium SES	0.68 (0.51,0.89)	1.09 (0.70,1.69)	0.81 (0.53,1.25)	0.85 (0.55,1.29)	0.82 (0.53,1.26)	0.84 (0.55,1.28)
Low SES	1.82 (1.40,2.39)	1.92 (1.25,2.96)	1.01 (0.65,1.57)	1.12 (0.73,1.71)	1.00 (0.65,1.57)	1.10 (0.72,1.68)
Episodic attendance	1.93 (1.42,2.61)		1.22 (0.88,1.67)	1.19 (0.87,1.61)	1.21 (0.88,1.67)	1.19 (0.88,1.62)
Moderate plaque trajectory at age 32	1.17 (0.89,1.54)		1.61 (1.11,2.24)			1.64 (1.14,2.37)
High plaque trajectory at age 32	2.71 (2.06,3.56)		2.08 (1.32,3.28)			2.25 (1.46,3.48)
Pack-years to age 32, per pack year	1.08 (1.07,1.10)		1.06 (1.04,1.08)		1.06 (1.04,1.08)	
Non-smoker*moderate plaque trajectory	0.50 (0.35,0.71)			1.23 (0.73,2.07)		
Non-smoker*high plaque trajectory	1.19 (0.64,2.11)			1.79 (0.76,4.22)		
Smoker* low plaque trajectory	0.81 (0.47,1.38)			1.68 (0.88,3.19)		
Smoker*moderate plaque trajectory	2.53 (1.94,3.30)			3.86 (2.42,6.15)		
Smoker*high plaque trajectory	3.37 (2.58,4.40)			4.99 (2.97,8.37)		
Low familial risk*moderate plaque trajectory	0.98 (0.74,1.29)				1.49 (1.00,2.24)	
Low familial risk*high plaque trajectory	2.58 (1.92,3.46)				2.05 (1.27,3.33)	
High familial risk*low plaque trajectory	0.47 (0.20,1.08)				0.90 (0.38,2.10)	
High familial risk*moderate plaque trajectory	1.52 (1.05,2.20)				2.04 (1.25,3.32)	
High familial risk*high plaque trajectory	2.36 (1.46,3.81)				2.23 (1.17,4.25)	
Non-smoker*high familial risk	0.60 (0.35,1.04)					1.13 (0.64,2.01)
Smoker*low familial risk	2.48 (1.91,3.23)					2.61 (1.87,3.65)
Smoker*high familial risk	2.41 (1.75,3.32)					3.13 (2.09,4.69)
High familial-risk for periodontal disease	1.32 (0.96,1.80)	1.31 (0.96,1.78)	1.20 (0.89,1.63)	1.18 (0.88,1.57)		

Reference categories: male (female, coded 0), medium or low SES at age 32 (high SES coded 0), episodic user of dental services at age 32 (routine user of dental services at age 32, coded 0), moderate or high plaque trajectory (low plaque trajectory coded 0), non-smoker*moderate plaque trajectory, non-smoker*high plaque trajectory, smoker*low plaque trajectory, smoker*moderate plaque trajectory or smoker*high plaque trajectory (non-smoker*low plaque trajectory coded 0), low familial risk*moderate plaque trajectory, low familial risk*high plaque trajectory, high familial risk*low plaque trajectory, high familial risk*moderate plaque trajectory or high familial risk*high plaque trajectory (low familial risk*moderate plaque trajectory coded 0), non-smoker*high familial risk, smoker*low familial risk or smoker*high familial risk (non-smoker*low familial risk coded 0), high familial-risk for periodontal disease (low familial-risk for periodontal disease coded 0).

CAL, combined attachment loss; RR, relative risk; CI, confidence interval; SES, socioeconomic status. Significant findings in bold type.

Table 3. Outcomes of multivariate modelling, smoking-plaque effect modification (model 3), familial risk-plaque effect modification (model 4), and smoking- familial risk effect modification (model 5) for proband prevalence of one or more sites with 5+mm combined attachment loss at age 32 (one or both parents in).

	RR 1+ sites with 5+mm CAL at age 32 (95% CI)					
	Unadjusted	Adjusted Model 1	Adjusted Model 2	Adjusted Model 3	Adjusted Model 4	Adjusted Model 5
Predisposing factors at 32						
Male	1.47 (1.01,2.15)	1.50 (1.03,2.17)	1.18 (0.79,1.75)	1.24 (0.84,1.82)	1.18 (0.80,1.76)	1.22 (0.83,1.81)
Medium SES	0.66 (0.45,0.95)	1.17 (0.63,2.15)	0.86 (0.47,1.57)	0.88 (0.48,1.60)	0.86 (0.46,1.57)	0.87 (0.48,1.58)
Low SES	2.00 (1.38,2.85)	2.19 (1.21,3.98)	1.12 (0.59,2.12)	1.22 (0.66,2.24)	1.21 (0.60,2.11)	1.19 (0.65,2.19)
Episodic attendance	2.57 (1.68,3.96)		1.56 (0.98,2.47)	1.44 (0.93,2.25)	1.56 (0.98,2.47)	1.45 (0.93,2.25)
Moderate plaque trajectory at age 32	1.22 (0.84,1.76)		1.44 (0.89,2.33)			1.46 (0.91,2.35)
High plaque trajectory at age 32	2.45 (1.63,3.67)		1.65 (0.88,3.10)			1.77 (0.98,3.18)
Pack-years to age 32, per pack year	1.10 (1.08,1.12)		1.07 (1.05,1.10)		1.07 (1.05,1.10)	
Non-smoker*moderate plaque trajectory	0.37 (0.22,0.63)			1.07 (0.50,2.27)		
Non-smoker*high plaque trajectory	0.72 (0.24,2.17)			1.59 (0.44,5.74)		
Smoker* low plaque trajectory	1.15 (0.63,2.12)			2.48 (1.12,5.51)		
Smoker*moderate plaque trajectory	3.18 (2.22,4.55)			4.58 (2.37,8.87)		
Smoker*high plaque trajectory	3.36 (2.24,5.06)			5.16 (2.44,10.93)		
Low familial risk*moderate plaque trajectory	1.00 (0.68,1.45)				1.49 (0.86,2.57)	
Low familial risk*high plaque trajectory	2.13 (1.34,3.38)				1.72 (0.85,3.48)	
High familial risk*low plaque trajectory	0.79 (0.34,1.85)				1.60 (0.65,3.92)	
High familial risk*moderate plaque trajectory	1.59 (0.96,2.62)				2.06 (1.06,3.97)	
High familial risk*high plaque trajectory	2.77 (1.46,5.26)				2.27 (0.99,5.22)	
Non-smoker*high familial risk	0.58 (0.28,1.22)					1.39 (0.61,3.14)
Smoker*low familial risk	2.94 (2.05,4.21)					3.58 (2.20,5.82)
Smoker*high familial risk	3.10 (2.04,4.70)					4.80 (2.75,8.38)
High familial-risk for periodontal disease	1.59 (1.06,2.38)	1.57 (1.05,2.33)	1.40 (0.94,2.09)	1.36 (0.92,1.99)		

Reference categories: male (female, coded 0), medium or low SES at age 32 (high SES coded 0), episodic user of dental services at age 32 (routine user of dental services at age 32, coded 0), moderate or high plaque trajectory (low plaque trajectory coded 0), non-smoker*moderate plaque trajectory, non-smoker*high plaque trajectory, smoker*low plaque trajectory, smoker*moderate plaque trajectory or smoker*high plaque trajectory (non-smoker*low plaque trajectory coded 0), low familial risk*moderate plaque trajectory, low familial risk*high plaque trajectory, high familial risk*low plaque trajectory, high familial risk*moderate plaque trajectory or high familial risk*high plaque trajectory (low familial risk*moderate plaque trajectory coded 0), non-smoker*high familial risk, smoker*low familial risk or smoker*high familial risk (non-smoker*low familial risk coded 0), high familial-risk for periodontal disease (low familial-risk for periodontal disease coded 0).

CAL, combined attachment loss; RR, relative risk; CI, confidence interval; SES, socioeconomic status. Significant findings in bold type.

Table 4. Outcomes of multivariate modelling, smoking-plaque effect modification (model 3), familial risk-plaque effect modification (model 4), and smoking- familial risk effect modification (model 5) for proband prevalence of one or more sites with 3+mm incident combined attachment loss between ages 26 and 32 (one or both parents in).

	RR 1+ sites with 3+mm incident CAL between ages 26- 32 (95% CI)					
	Unadjusted	Adjusted Model 1	Adjusted Model 2	Adjusted Model 3	Adjusted Model 4	Adjusted Model 5
Predisposing factors at 32						
Male	1.30 (0.90,1.87)	1.33 (0.93,1.91)	1.15 (0.77,1.72)	1.21 (0.82,1.81)	1.16 (0.77,1.74)	1.20 (0.80,1.79)
Medium SES	1.02 (0.71,1.47)	1.49 (0.82,2.70)	1.16 (0.64,2.12)	1.23 (0.68,2.23)	1.16 (0.63,2.11)	1.21 (0.66,2.19)
Low SES	1.27 (0.87,1.85)	1.71 (0.93,3.18)	1.09 (0.60,2.12)	1.23 (0.64,2.34)	1.09 (0.56,2.11)	1.20 (0.63,2.28)
Episodic attendance	1.24 (0.86,1.79)		0.78 (0.52,1.17)	0.80 (0.54,1.17)	0.78 (0.52,1.17)	0.80 (0.55,1.17)
Moderate plaque trajectory at age 32	0.85 (0.59,1.23)		0.86 (0.56,1.31)			0.90 (0.59,1.37)
High plaque trajectory at age 32	2.01 (1.31,3.09)		1.15 (0.62,2.14)			1.33 (0.74,2.38)
Pack-years to age 32, per pack year	1.08 (1.05,1.10)		1.08 (1.05,1.11)		1.08 (1.05,1.10)	
Non-smoker*moderate plaque trajectory	0.42 (0.25,0.69)			0.73 (0.39,1.37)		
Non-smoker*high plaque trajectory	0.96 (0.37,2.45)			1.46 (0.51,4.21)		
Smoker* low plaque trajectory	1.65 (0.99,2.75)			2.38 (1.27,4.50)		
Smoker*moderate plaque trajectory	1.98 (1.34,2.92)			2.57 (1.46,4.50)		
Smoker*high plaque trajectory	2.52 (1.61,3.96)			3.34 (1.67,6.67)		
Low familial risk*moderate plaque trajectory	0.78 (0.53,1.15)				0.90 (0.56,1.45)	
Low familial risk*high plaque trajectory	1.79 (1.09,2.93)				1.23 (0.63,2.39)	
High familial risk*low plaque trajectory	1.27 (0.66,2.48)				1.59 (0.80,3.19)	
High familial risk*moderate plaque trajectory	1.20 (0.69,2.10)				1.15 (0.60,2.20)	
High familial risk*high plaque trajectory	2.30 (1.13,4.67)				1.50 (0.58,3.85)	
Non-smoker*high familial risk	0.84 (0.45,1.56)					1.52 (0.78,2.98)
Smoker*low familial risk	2.23 (1.56,3.19)					3.01 (1.93,4.69)
Smoker*high familial risk	2.30 (1.45,3.68)					3.74 (2.14,6.54)
High familial-risk for periodontal disease	1.47 (0.97,2.21)	1.45 (0.97,2.18)	1.35 (0.90,2.04)	1.34 (0.90,2.01)		

Reference categories: male (female, coded 0), medium or low SES at age 32 (high SES coded 0), episodic user of dental services at age 32 (routine user of dental services at age 32, coded 0), moderate or high plaque trajectory (low plaque trajectory coded 0), non-smoker*moderate plaque trajectory, non-smoker*high plaque trajectory, smoker*low plaque trajectory, smoker*moderate plaque trajectory or smoker*high plaque trajectory (non-smoker*low plaque trajectory coded 0), low familial risk*moderate plaque trajectory, low familial risk*high plaque trajectory, high familial risk*low plaque trajectory, high familial risk*moderate plaque trajectory or high familial risk*high plaque trajectory (low familial risk*moderate plaque trajectory coded 0), non-smoker*high familial risk, smoker*low familial risk or smoker*high familial risk (non-smoker*low familial risk coded 0), high familial-risk for periodontal disease (low familial-risk for periodontal disease coded 0).

CAL, combined attachment loss; RR, relative risk; CI, confidence interval; SES, socioeconomic status. Significant findings in bold type.

Table 5. Outcomes of multivariate modelling, smoking-plaque effect modification (model 3), familial risk-plaque effect modification (model 4), and smoking- familial risk effect modification (model 5) for proband prevalence of one or more sites with 4+mm combined attachment loss at age 32 (both parents in).

	RR 1+ sites with 4+mm CAL at age 32 (95% CI)					
	Unadjusted	Adjusted Model 1	Adjusted Model 2	Adjusted Model 3	Adjusted Model 4	Adjusted Model 5
Predisposing factors at 32						
Male	1.42 (1.09,1.85)	1.42 (1.10,1.85)	1.23 (0.93,1.62)	1.27 (0.97,1.66)	1.22 (0.93,1.61)	1.24 (0.94,1.63)
Medium SES	0.65 (0.50,0.84)	1.00 (0.66,1.50)	0.80 (0.53,1.21)	0.88 (0.59,1.31)	0.82 (0.54,1.23)	0.85 (0.57,1.27)
Low SES	1.90 (1.47,2.45)	1.86 (1.26,2.76)	1.30 (0.86,1.95)	1.38 (0.93,2.04)	1.31 (0.87,1.98)	1.36 (0.92,2.03)
Episodic attendance	1.61 (1.21,2.13)		1.09 (0.81,1.46)	1.09 (0.82,1.44)	1.08 (0.80,1.44)	1.08 (0.81,1.43)
Moderate plaque trajectory at age 32	1.22 (0.94,1.59)		1.30 (0.94,1.80)			1.33 (0.97,1.84)
High plaque trajectory at age 32	2.20 (1.66,2.91)		1.57 (1.02,2.44)			1.68 (1.10,2.58)
Pack-years to age 32, per pack year	1.07 (1.05,1.09)		1.05 (1.03,1.07)		1.05 (1.03,1.07)	
Non-smoker*moderate plaque trajectory	0.64 (0.47,0.88)			1.27 (0.80,2.00)		
Non-smoker*high plaque trajectory	1.72 (1.10,2.67)			2.52 (1.36,4.66)		
Smoker* low plaque trajectory	1.25 (0.84,1.88)			2.25 (1.34,3.79)		
Smoker*moderate plaque trajectory	2.34 (1.81,3.02)			3.09 (2.00,4.76)		
Smoker*high plaque trajectory	2.37 (1.73,3.25)			3.01 (1.81,5.00)		
Low familial risk*moderate plaque trajectory	0.89 (0.67,1.17)				1.16 (0.79,1.68)	
Low familial risk*high plaque trajectory	2.07 (1.51,2.83)				1.59 (0.98,2.58)	
High familial risk*low plaque trajectory	0.66 (0.35,1.26)				1.08 (0.56,2.08)	
High familial risk*moderate plaque trajectory	1.95 (1.44,2.63)				2.04 (1.36,3.05)	
High familial risk*high plaque trajectory	2.20 (1.37,3.53)				1.86 (1.03,3.37)	
Non-smoker*high familial risk	0.93 (0.61,1.40)					1.53 (0.99,2.35)
Smoker*low familial risk	1.98 (1.53,2.56)					2.21 (1.61,3.03)
Smoker*high familial risk	2.50 (1.89,3.32)					2.95 (2.06,4.24)
High familial-risk for periodontal disease	1.57 (1.19,2.08)	1.55 (1.19,2.03)	1.46 (1.12,1.89)	1.45 (1.11,1.88)		

Reference categories: male (female, coded 0), medium or low SES at age 32 (high SES coded 0), episodic user of dental services at age 32 (routine user of dental services at age 32, coded 0), moderate or high plaque trajectory (low plaque trajectory coded 0), non-smoker*moderate plaque trajectory, non-smoker*high plaque trajectory, smoker*low plaque trajectory, smoker*moderate plaque trajectory or smoker*high plaque trajectory (non-smoker*low plaque trajectory coded 0), low familial risk*moderate plaque trajectory, low familial risk*high plaque trajectory, high familial risk*low plaque trajectory, high familial risk*moderate plaque trajectory or high familial risk*high plaque trajectory (low familial risk*moderate plaque trajectory coded 0), non-smoker*high familial risk, smoker*low familial risk or smoker*high familial risk (non-smoker*low familial risk coded 0), high familial-risk for periodontal disease (low familial-risk for periodontal disease coded 0).

CAL, combined attachment loss; RR, relative risk; CI, confidence interval; SES, socioeconomic status. Significant findings in bold type.

Table 6. Outcomes of multivariate modelling, smoking-plaque effect modification (model 3), familial risk-plaque effect modification (model 4), and smoking- familial risk effect modification (model 5) for proband prevalence of two or more sites with 4+mm combined attachment loss at age 32 (both parents in).

	RR 2+ sites with 4+mm CAL at age 32 (95% CI)					
	Unadjusted	Adjusted Model 1	Adjusted Model 2	Adjusted Model 3	Adjusted Model 4	Adjusted Model 5
Predisposing factors at 32						
Male	1.27 (0.89,1.80)	1.27 (0.90,1.79)	1.03 (0.71,1.49)	1.07 (0.75,1.52)	1.02 (0.71,1.47)	1.06 (0.74,1.52)
Medium SES	0.62 (0.44,0.88)	0.99 (0.57,1.71)	0.76 (0.44,1.31)	0.84 (0.50,1.42)	0.78 (0.45,1.36)	0.84 (0.49,1.42)
Low SES	2.02 (1.43,2.84)	1.96 (1.16,3.32)	1.25 (0.72,2.16)	1.35 (0.80,2.30)	1.29 (0.74,2.23)	1.34 (0.79,2.27)
Episodic attendance	1.81 (1.25,2.64)		1.14 (0.77,1.70)	1.13 (0.77,1.65)	1.13 (0.76,1.68)	1.13 (0.77,1.65)
Moderate plaque trajectory at age 32	1.13 (0.80,1.60)		1.30 (0.84,2.00)			1.34 (0.88,2.06)
High plaque trajectory at age 32	2.52 (1.73,3.69)		1.75 (1.00,3.06)			1.87 (1.07,3.25)
Pack-years to age 32, per pack year	1.08 (1.06,1.11)		1.06 (1.04,1.09)		1.06 (1.04,1.09)	
Non-smoker*moderate plaque trajectory	0.55 (0.36,0.85)			1.16 (0.63,2.13)		
Non-smoker*high plaque trajectory	1.31 (0.63,2.71)			1.82 (0.69,4.84)		
Smoker* low plaque trajectory	1.18 (0.67,2.07)			2.10 (1.06,4.17)		
Smoker*moderate plaque trajectory	2.42 (1.70,3.45)			3.31 (1.87,5.85)		
Smoker*high plaque trajectory	3.27 (2.22,4.82)			4.32 (2.25,8.29)		
Low familial risk*moderate plaque trajectory	0.84 (0.58,1.21)				1.10 (0.68,1.79)	
Low familial risk*high plaque trajectory	2.00 (1.26,3.16)				1.45 (0.76,2.75)	
High familial risk*low plaque trajectory	0.51 (0.20,1.32)				0.79 (0.35,2.99)	
High familial risk*moderate plaque trajectory	1.86 (1.21,2.87)				1.92 (1.10,3.35)	
High familial risk*high plaque trajectory	3.51 (2.15,5.73)				2.69 (1.38,5.23)	
Non-smoker*high familial risk	0.74 (0.40,1.36)					1.34 (0.71,2.54)
Smoker*low familial risk	2.06 (1.46,2.91)					2.46 (1.62,3.72)
Smoker*high familial risk	3.10 (2.13,4.52)					3.75 (2.38,5.90)
High familial-risk for periodontal disease	1.65 (1.14,2.40)	1.62 (1.12,2.33)	1.51 (1.07,2.12)	1.45 (1.03,2.05)		

Reference categories: male (female, coded 0), medium or low SES at age 32 (high SES coded 0), episodic user of dental services at age 32 (routine user of dental services at age 32, coded 0), moderate or high plaque trajectory (low plaque trajectory coded 0), non-smoker*moderate plaque trajectory, non-smoker*high plaque trajectory, smoker*low plaque trajectory, smoker*moderate plaque trajectory or smoker*high plaque trajectory (non-smoker*low plaque trajectory coded 0), low familial risk*moderate plaque trajectory, low familial risk*high plaque trajectory, high familial risk*low plaque trajectory, high familial risk*moderate plaque trajectory or high familial risk*high plaque trajectory (low familial risk*moderate plaque trajectory coded 0), non-smoker*high familial risk, smoker*low familial risk or smoker*high familial risk (non-smoker*low familial risk coded 0), high familial-risk for periodontal disease (low familial-risk for periodontal disease coded 0).

CAL, combined attachment loss; RR, relative risk; CI, confidence interval; SES, socioeconomic status. Significant findings in bold type.

Table 7. Outcomes of multivariate modelling, smoking-plaque effect modification (model 3), familial risk-plaque effect modification (model 4), and smoking- familial risk effect modification (model 5) for proband prevalence of one or more sites with 5+mm combined attachment loss at age 32 (both parents in).

	RR 1+ sites with 5+mm CAL at age 32 (95% CI)					
	Unadjusted	Adjusted Model 1	Adjusted Model 2	Adjusted Model 3	Adjusted Model 4	Adjusted Model 5
Predisposing factors at 32						
Male	1.45 (0.91,2.30)	1.48 (0.94,2.32)	1.13 (0.71,1.82)	1.20 (0.76,1.89)	1.13 (0.71,1.81)	1.18 (0.75,1.86)
Medium SES	0.67 (0.43,1.07)	1.23 (0.58,2.60)	0.89 (0.41,1.89)	1.02 (0.48,2.14)	0.88 (0.40,1.91)	1.00 (0.48,2.07)
Low SES	2.03 (1.29,3.19)	2.31 (1.11,4.79)	1.34 (0.62,2.88)	1.46 (0.70,3.05)	1.35 (0.62,2.92)	1.45 (0.70,3.01)
Episodic attendance	2.31 (1.39,3.84)		1.30 (0.75,2.26)	1.24 (0.74,2.07)	1.31 (0.75,2.29)	1.23 (0.73,2.08)
Moderate plaque trajectory at age 32	1.28 (0.81,2.03)		1.40 (0.80,2.46)			1.47 (0.84,2.55)
High plaque trajectory at age 32	2.42 (1.43,4.11)		1.64 (0.76,3.55)			1.79 (0.86,3.73)
Pack-years to age 32, per pack year	1.11 (1.08,1.14)		1.08 (1.05,1.12)		1.08 (1.05,1.12)	
Non-smoker*moderate plaque trajectory	0.44 (0.24,0.80)			1.43 (0.57,3.57)		
Non-smoker*high plaque trajectory	1.03 (0.34,3.07)			2.60 (0.66,10.30)		
Smoker* low plaque trajectory	1.59 (0.83,3.04)			4.02 (1.61,10.04)		
Smoker*moderate plaque trajectory	3.30 (2.11,5.18)			5.92 (2.60,13.44)		
Smoker*high plaque trajectory	3.39 (1.96,5.86)			6.41 (2.56,16.09)		
Low familial risk*moderate plaque trajectory	0.98 (0.61,1.57)				1.43 (0.75,2.74)	
Low familial risk*high plaque trajectory	1.65 (0.84,3.25)				1.44 (0.55,3.75)	
High familial risk*low plaque trajectory	0.83 (0.32,2.18)				1.57 (0.58,4.26)	
High familial risk*moderate plaque trajectory	1.80 (1.00,3.25)				2.12 (0.97,4.63)	
High familial risk*high plaque trajectory	4.26 (2.22,8.16)				3.15 (1.32,7.54)	
Non-smoker*high familial risk	0.70 (0.31,1.57)					1.71 (0.70,4.17)
Smoker*low familial risk	2.73 (1.75,4.27)					3.95 (2.21,7.04)
Smoker*high familial risk	3.88 (2.39,6.30)					6.02 (2.97,11.37)
High familial-risk for periodontal disease	1.93 (1.19,3.11)	1.88 (1.18,2.99)	1.64 (1.04,2.59)	1.60 (1.02,2.50)		

Reference categories: male (female, coded 0), medium or low SES at age 32 (high SES coded 0), episodic user of dental services at age 32 (routine user of dental services at age 32, coded 0), moderate or high plaque trajectory (low plaque trajectory coded 0), non-smoker*moderate plaque trajectory, non-smoker*high plaque trajectory, smoker*low plaque trajectory, smoker*moderate plaque trajectory or smoker*high plaque trajectory (non-smoker*low plaque trajectory coded 0), low familial risk*moderate plaque trajectory, low familial risk*high plaque trajectory, high familial risk*low plaque trajectory, high familial risk*moderate plaque trajectory or high familial risk*high plaque trajectory (low familial risk*moderate plaque trajectory coded 0), non-smoker*high familial risk, smoker*low familial risk or smoker*high familial risk (non-smoker*low familial risk coded 0), high familial-risk for periodontal disease (low familial-risk for periodontal disease coded 0).

CAL, combined attachment loss; RR, relative risk; CI, confidence interval; SES, socioeconomic status. Significant findings in bold type.

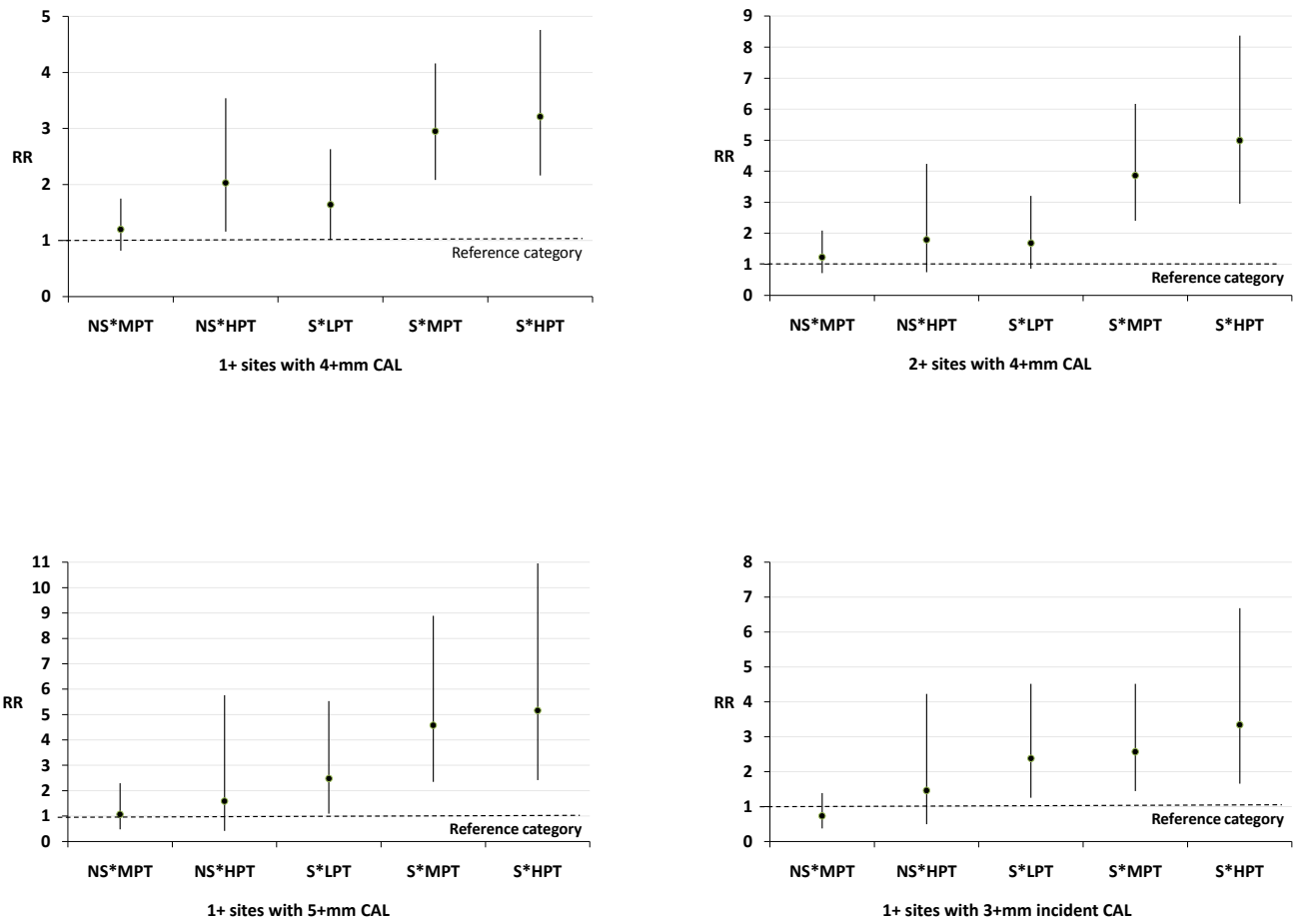
Table 8. Outcomes of multivariate modelling, smoking-plaque effect modification (model 3), familial risk-plaque effect modification (model 4), and smoking- familial risk effect modification (model 5) for proband prevalence of one or more sites with 3+mm incident combined attachment loss between ages 26 and 32 (both parents in).

	RR 1+ sites with 3+mm incident CAL between ages 26- 32 (95% CI)					
	Unadjusted	Adjusted Model 1	Adjusted Model 2	Adjusted Model 3	Adjusted Model 4	Adjusted Model 5
Predisposing factors at 32						
Male	1.13 (0.72,1.79)	1.17 (0.75,1.83)	1.03 (0.62,1.71)	1.08 (0.67,1.75)	1.04 (0.63,1.73)	1.04 (0.64,1.71)
Medium SES	0.91 (0.58,1.44)	1.41 (0.68,2.94)	1.12 (0.54,2.35)	1.24 (0.59,2.60)	1.10 (0.52,2.32)	1.84 (0.57,2.46)
Low SES	1.48 (0.92,2.37)	1.89 (0.88,4.04)	1.37 (0.61,3.05)	1.43 (0.66,3.13)	1.34 (0.60,3.00)	1.43 (0.65,3.11)
Episodic attendance	1.35 (0.85,2.14)		0.86 (0.51,1.45)	0.87 (0.54,1.41)	0.87 (0.52,1.47)	0.87 (0.53,1.41)
Moderate plaque trajectory at age 32	0.84 (0.53,1.33)		0.83 (0.50,1.38)			0.87 (0.52,1.45)
High plaque trajectory at age 32	2.00 (1.13,3.53)		1.22 (0.55,2.70)			1.40 (0.65,3.02)
Pack-years to age 32, per pack year	1.08 (1.05,1.11)		1.07 (1.03,1.11)		1.07 (1.03,1.11)	
Non-smoker*moderate plaque trajectory	0.48 (0.27,0.87)			0.91 (0.44,1.90)		
Non-smoker*high plaque trajectory	1.39 (0.55,3.55)			2.23 (0.72,6.89)		
Smoker* low plaque trajectory	2.24 (1.28,3.93)			3.24 (1.57,6.69)		
Smoker*moderate plaque trajectory	1.85 (1.10,3.10)			2.60 (1.25,5.41)		
Smoker*high plaque trajectory	2.34 (1.22,4.49)			3.37 (1.34,8.50)		
Low familial risk*moderate plaque trajectory	0.75 (0.46,1.23)				0.94 (0.51,1.74)	
Low familial risk*high plaque trajectory	1.65 (0.84,3.25)				1.37 (0.56,3.33)	
High familial risk*low plaque trajectory	1.77 (0.91,3.48)				2.17 (1.05,4.52)	
High familial risk*moderate plaque trajectory	1.24 (0.62,2.48)				1.30 (0.57,2.95)	
High familial risk*high plaque trajectory	2.75 (1.16,6.50)				2.00 (0.60,6.63)	
Non-smoker*high familial risk	1.25 (0.67,2.35)					2.35 (1.16,4.78)
Smoker*low familial risk	2.27 (1.44,3.57)					3.34 (1.92,5.80)
Smoker*high familial risk	2.35 (1.30,4.28)					3.94 (1.96,7.91)
High familial-risk for periodontal disease	1.79 (1.10,2.92)	1.75 (1.08,2.83)	1.65 (1.01,2.69)	1.64 (1.01,2.66)		

Reference categories: male (female, coded 0), medium or low SES at age 32 (high SES coded 0), episodic user of dental services at age 32 (routine user of dental services at age 32, coded 0), moderate or high plaque trajectory (low plaque trajectory coded 0), non-smoker*moderate plaque trajectory, non-smoker*high plaque trajectory, smoker*low plaque trajectory, smoker*moderate plaque trajectory or smoker*high plaque trajectory (non-smoker*low plaque trajectory coded 0), low familial risk*moderate plaque trajectory, low familial risk*high plaque trajectory, high familial risk*low plaque trajectory, high familial risk*moderate plaque trajectory or high familial risk*high plaque trajectory (low familial risk*moderate plaque trajectory coded 0), non-smoker*high familial risk, smoker*low familial risk or smoker*high familial risk (non-smoker*low familial risk coded 0), high familial-risk for periodontal disease (low familial-risk for periodontal disease coded 0).

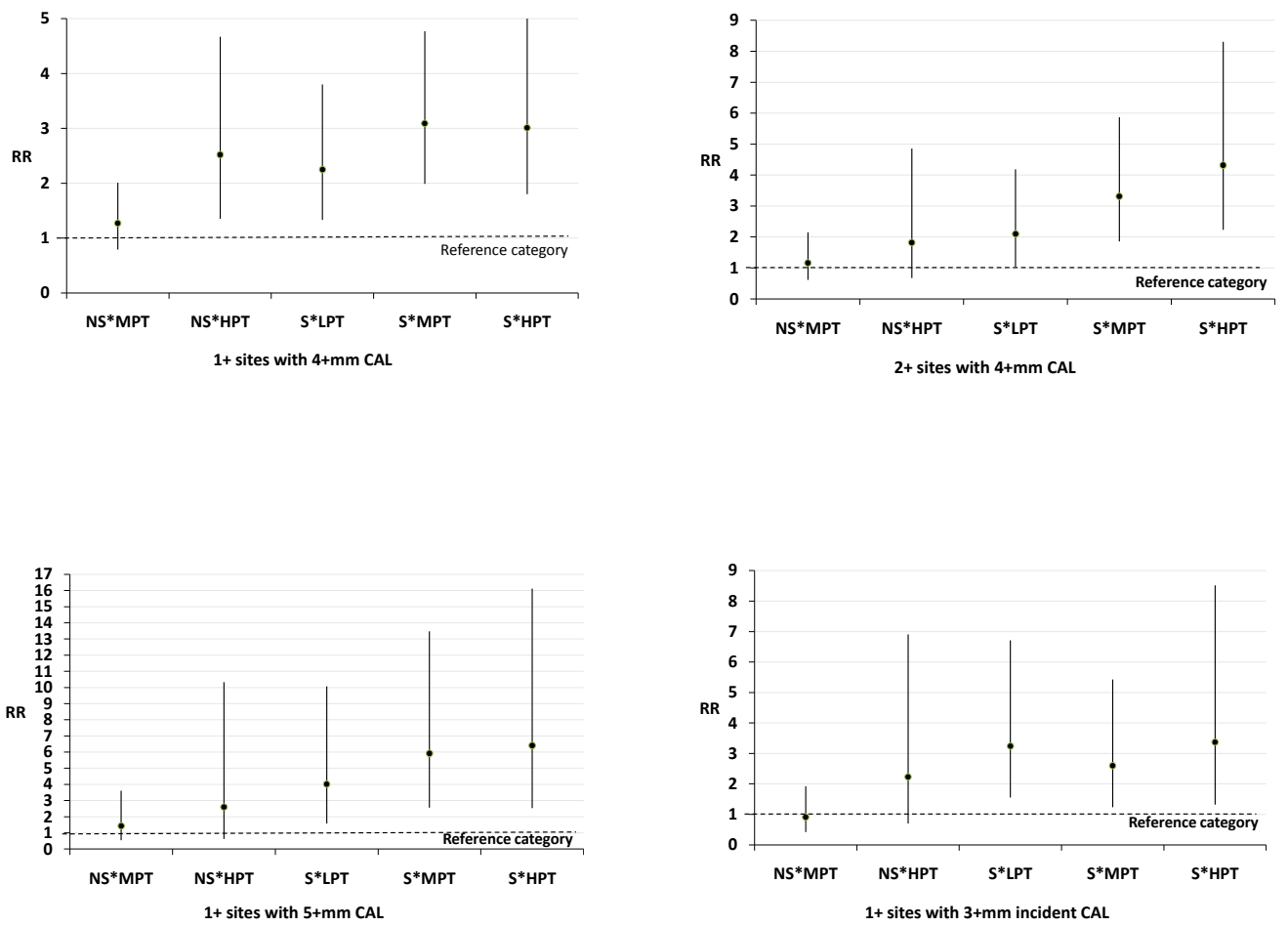
CAL, combined attachment loss; RR, relative risk; CI, confidence interval; SES, socioeconomic status. Significant findings in bold type.

APPENDIX Fig 1. Smoking*Plaque Trajectory Effect Modifications – One or both parents sample



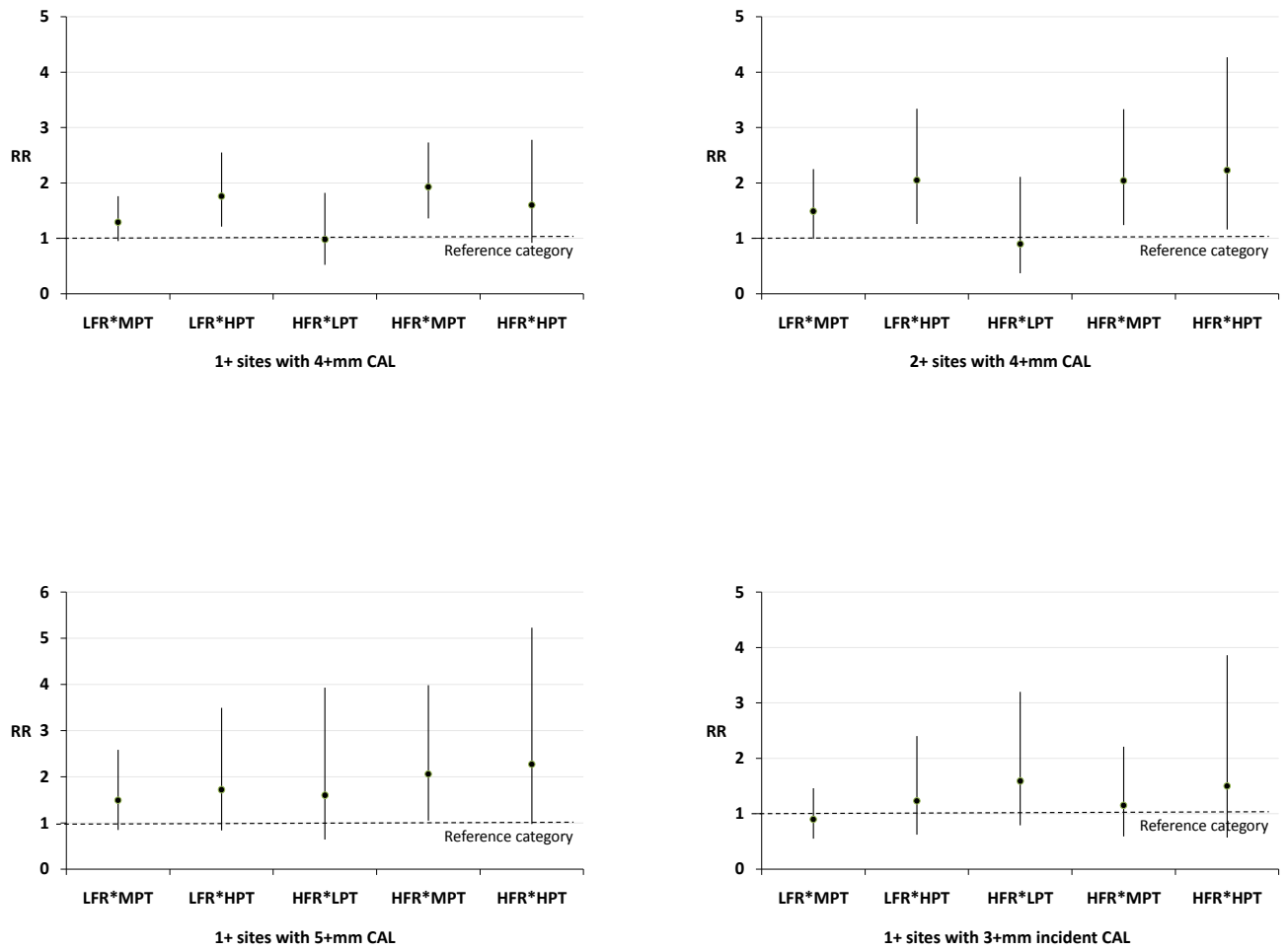
NS = Nonsmoker, S = Smoker, LPT = Low Plaque Trajectory, MPT = Moderate Plaque Trajectory, HPT = High Plaque Trajectory. Reference category is NS*LPT.

APPENDIX Fig 2. Smoking*Plaque Trajectory Effect Modifications – Both parents sample



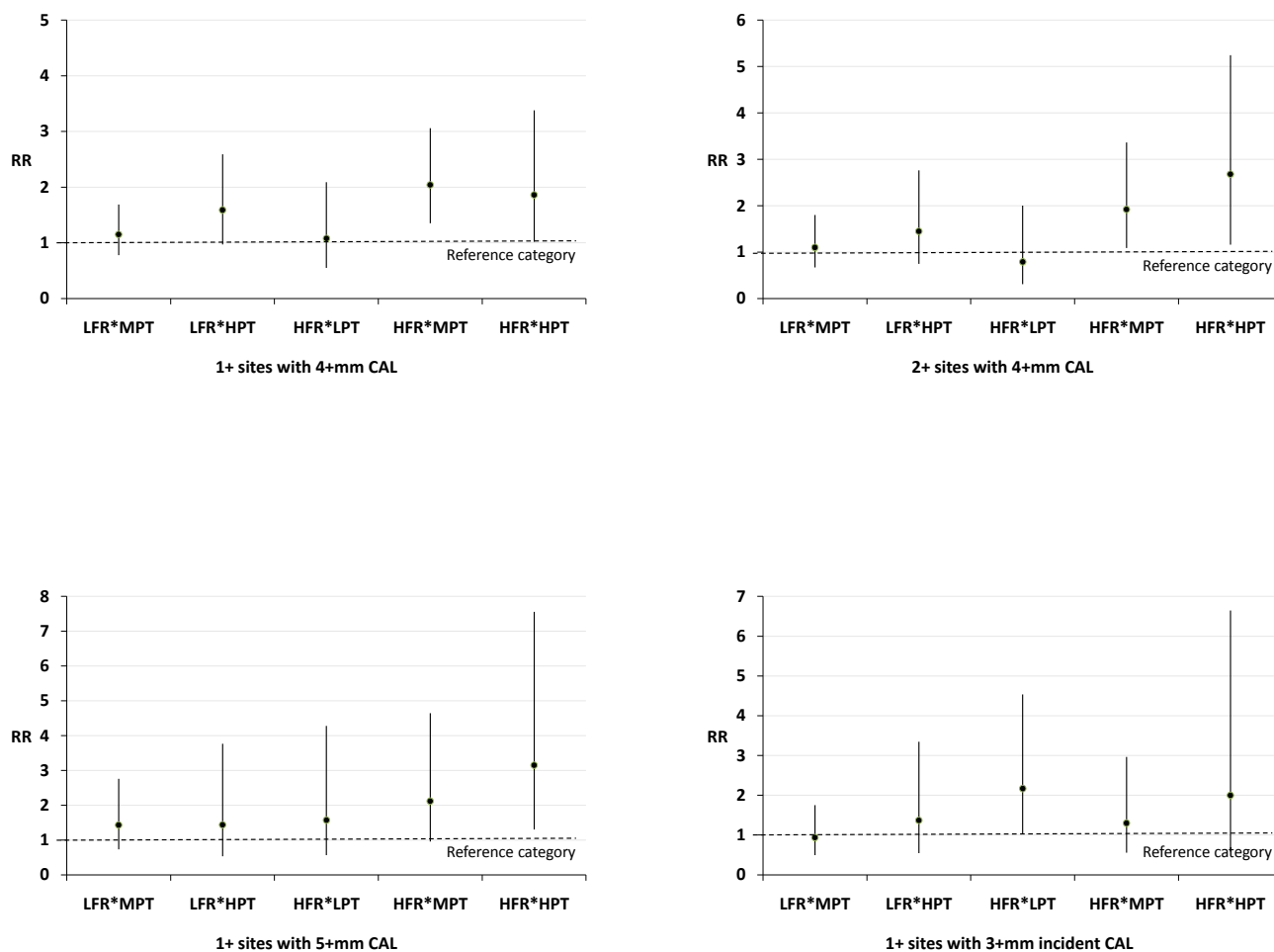
NS = Nonsmoker, S = Smoker, LPT = Low Plaque Trajectory, MPT = Moderate Plaque Trajectory, HPT = High Plaque Trajectory. Reference category is NS*LPT.

APPENDIX Fig 3. Familial Risk*Plaque Trajectory Effect Modifications – One or both parents sample



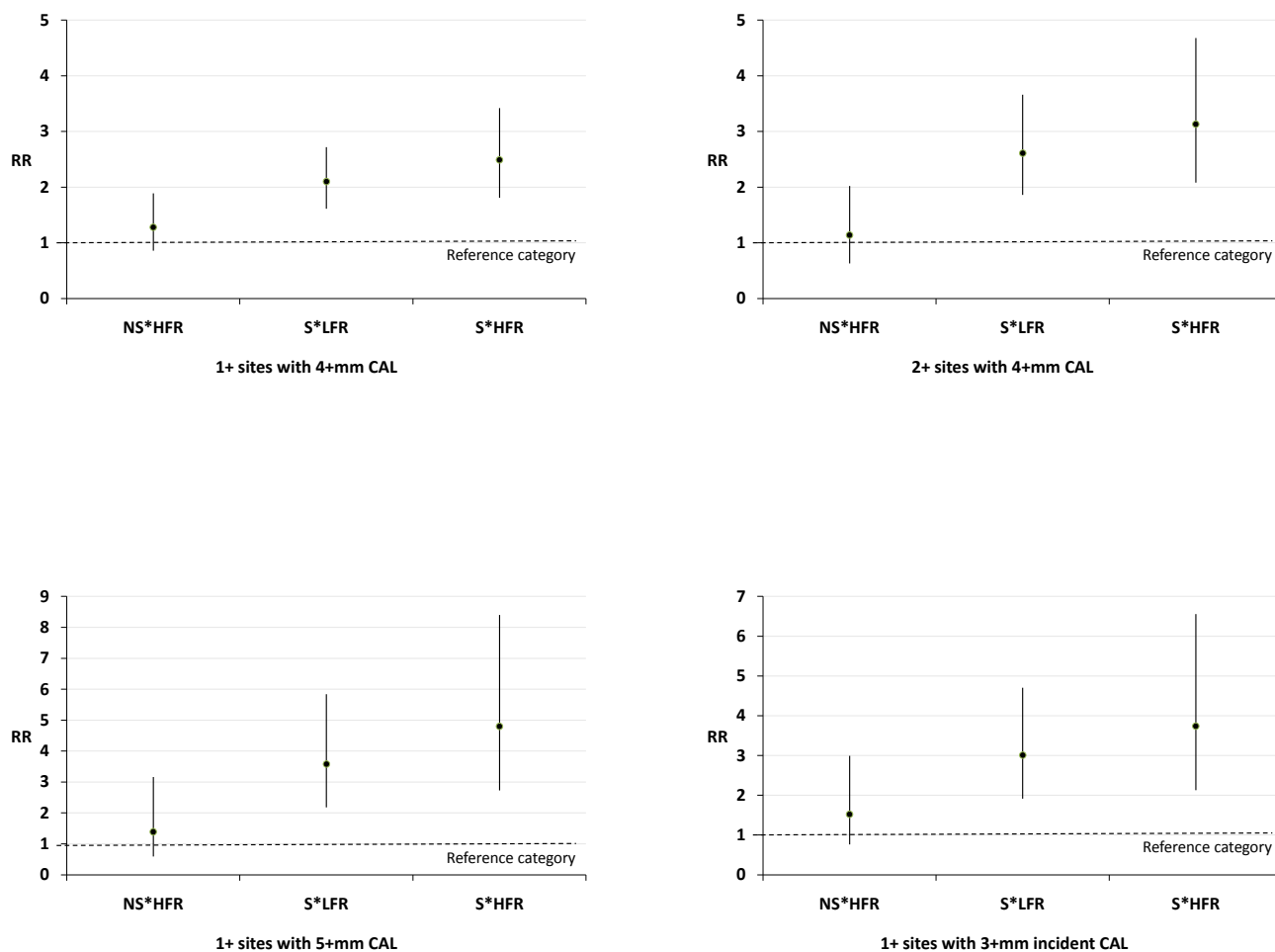
LFR = Low Familial Risk, HFR = High Familial Risk, LPT = Low Plaque Trajectory, MPT = Moderate Plaque Trajectory, HPT = High Plaque Trajectory. Reference category is LFR*LPT

APPENDIX Fig 4. Familial Risk*Plaque Trajectory Effect Modifications – Both parents sample



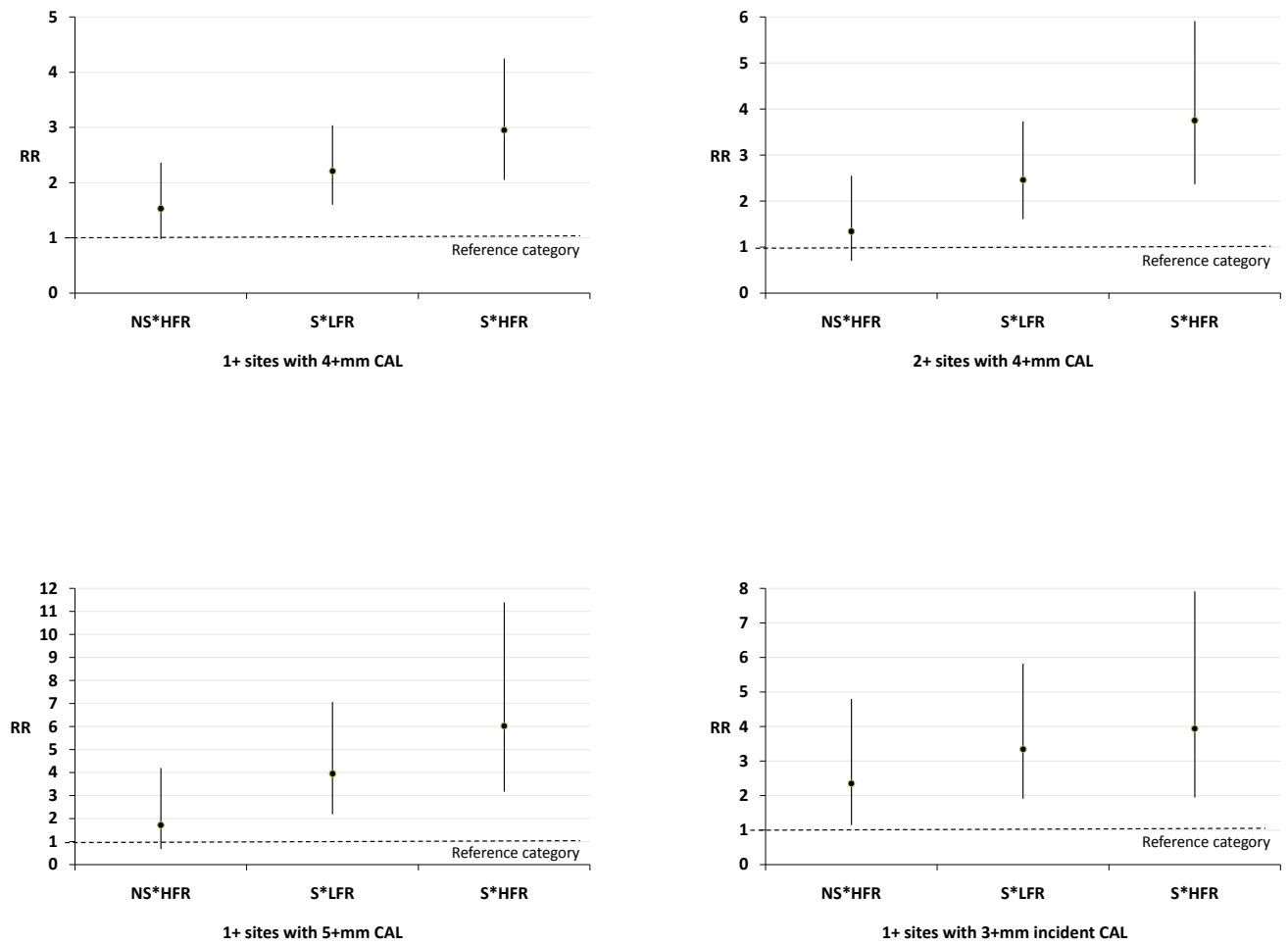
LFR = Low Familial Risk, HFR = High Familial Risk, LPT = Low Plaque Trajectory, MPT = Moderate Plaque Trajectory, HPT = High Plaque Trajectory. Reference category is LFR*LPT

APPENDIX Fig 5. Smoking*Familial Risk Effect Modifications – One or both parents sample



NS = Nonsmoker, S = Smoker, LFR = Low Familial Risk, HFR = High Familial Risk. Reference category is NS*LFR

APPENDIX Fig 6. Smoking*Familial Risk Effect Modifications – Both parents sample



NS = Nonsmoker, S = Smoker, LFR = Low Familial Risk, HFR = High Familial Risk. Reference category is NS*LFR