

SUPPLEMENTAL APPENDIX

Interdental Cleaning and Oral Health Status in an Adult Cohort, 2015-2018

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Appendix Table 1. Cross-sectional associations between interdental cleaning and oral health: all covariables shown

OUTCOME >	SELF-RATED ORAL HEALTH EXCELLENT	EVER TOOTH EXTRACTION	EVER GUM BLEEDING	EVER LOOSE TEETH	EVER BONE LOSS	EVER GUM DISEASE
	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
Interdental cleaning						
None	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
1-2 times/week	0.71 (0.60, 0.84)	1.49 (1.30, 1.71)	1.25 (1.11, 1.39)	0.98 (0.82, 1.16)	1.28 (1.02, 1.60)	1.03 (0.87, 1.21)
3-4 times/week	0.88 (0.73, 1.05)	1.39 (1.20, 1.63)	1.23 (1.08, 1.38)	1.08 (0.89, 1.32)	1.10 (0.87, 1.39)	1.04 (0.87, 1.24)
5-6 times/week	1.03 (0.86, 1.23)	1.40 (1.20, 1.64)	0.99 (0.86, 1.13)	0.98 (0.79, 1.21)	1.39 (1.09, 1.77)	1.05 (0.87, 1.26)
≥7 times/week	1.37 (1.17, 1.59)	1.34 (1.18, 1.52)	0.70 (0.63, 0.78)	0.95 (0.81, 1.11)	1.38 (1.14, 1.67)	0.96 (0.83, 1.11)
Age						
18-24 years	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
25-34 years	0.72 (0.62, 0.82)	2.90 (2.54, 3.31)	1.16 (1.05, 1.28)	1.54 (1.29, 1.85)	1.75 (1.34, 2.29)	2.06 (1.73, 2.45)
35-44 years	0.68 (0.58, 0.80)	5.27 (4.57, 6.08)	1.00 (0.89, 1.12)	2.38 (1.96, 2.87)	3.39 (2.66, 4.32)	3.12 (2.60, 3.75)
45-54 years	0.55 (0.46, 0.65)	7.01 (6.08, 8.08)	0.95 (0.84, 1.07)	3.60 (2.98, 4.35)	4.93 (3.90, 6.24)	4.28 (3.56, 5.15)
55-64 years	0.54 (0.45, 0.65)	11.1 (9.50, 12.9)	0.68 (0.60, 0.78)	4.17 (3.42, 5.08)	8.52 (6.76, 10.7)	5.01 (4.16, 6.04)
≥65 years	0.54 (0.44, 0.65)	16.6 (14.1, 19.6)	0.42 (0.36, 0.49)	3.30 (2.61, 4.18)	7.59 (5.93, 9.72)	4.41 (3.59, 5.42)
Sex						
Male	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Female	1.22 (1.10, 1.37)	0.94 (0.86, 1.04)	0.91 (0.84, 0.98)	0.82 (0.72, 0.92)	0.89 (0.77, 1.02)	0.92 (0.82, 1.03)
Race/ethnicity						
Non-Hispanic White	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Non-Hispanic Black	0.90 (0.78, 1.05)	1.52 (1.34, 1.72)	0.67 (0.60, 0.75)	1.34 (1.14, 1.58)	1.06 (0.88, 1.28)	1.01 (0.87, 1.18)
Non-Hispanic Other	0.75 (0.59, 0.96)	1.08 (0.88, 1.33)	0.73 (0.62, 0.86)	1.24 (0.94, 1.64)	0.97 (0.71, 1.33)	1.17 (0.92, 1.48)
Hispanic/Latinx	0.80 (0.69, 0.93)	1.06 (0.93, 1.21)	0.71 (0.63, 0.79)	1.02 (0.86, 1.22)	0.99 (0.80, 1.22)	0.93 (0.79, 1.10)
Annual income						
<\$10,000	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
\$10,000 - \$24,999	0.76 (0.61, 0.94)	1.04 (0.89, 1.23)	1.04 (0.90, 1.19)	0.75 (0.62, 0.90)	0.76 (0.59, 0.99)	0.92 (0.76, 1.11)
\$25,000 - \$49,999	0.78 (0.63, 0.97)	0.88 (0.74, 1.04)	1.03 (0.90, 1.19)	0.60 (0.49, 0.73)	0.94 (0.74, 1.21)	0.89 (0.73, 1.09)
\$50,000 - \$99,999	1.03 (0.84, 1.27)	0.71 (0.60, 0.85)	1.04 (0.90, 1.20)	0.44 (0.35, 0.54)	0.80 (0.06, 1.05)	0.78 (0.64, 0.96)
≥\$100,000	1.41 (1.14, 1.75)	0.52 (0.42, 0.64)	0.95 (0.81, 1.12)	0.31 (0.22, 0.42)	0.81 (0.60, 1.10)	0.63 (0.50, 0.80)
Education						
Below high school	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
High school or GED	1.07 (0.85, 1.35)	0.92 (0.79, 1.07)	1.03 (0.90, 1.19)	0.85 (0.72, 1.02)	0.99 (0.77, 1.27)	0.95 (0.78, 1.15)
Some college	1.13 (0.91, 1.41)	0.76 (0.65, 0.89)	1.24 (1.08, 1.43)	0.87 (0.73, 1.05)	1.07 (0.83, 1.39)	1.23 (1.00, 1.50)
College degree	1.58 (1.25, 2.00)	0.47 (0.40, 0.56)	1.28 (1.09, 1.50)	0.56 (0.44, 0.72)	1.00 (0.75, 1.33)	1.22 (0.98, 1.52)

Diabetes history						
Never	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Ever	0.69 (0.58, 0.83)	1.21 (1.07, 1.36)	1.13 (1.01, 1.27)	1.27 (1.09, 1.49)	1.39 (1.19, 1.64)	1.52 (1.33, 1.74)
Body mass index						
<18.5	1.04 (0.75, 1.43)	1.67 (1.24, 2.25)	1.11 (0.86, 1.43)	2.19 (1.49, 3.23)	1.28 (0.78, 2.10)	0.96 (0.66, 1.40)
18.5 - 24.99	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
25 - 29.99	0.87 (0.77, 0.99)	1.22 (1.09, 1.37)	1.04 (0.94, 1.14)	1.01 (0.86, 1.18)	0.91 (0.77, 1.08)	0.93 (0.81, 1.07)
≥30	0.79 (0.69, 0.91)	1.35 (1.20, 1.51)	1.18 (1.07, 1.30)	1.21 (1.04, 1.42)	1.12 (0.95, 1.33)	1.15 (1.01, 1.32)
Recent dental cleaning						
No	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Yes (past 12-mos.)	1.98 (1.73, 2.27)	0.90 (0.81, 0.99)	0.87 (0.80, 0.95)	0.63 (0.55, 0.72)	1.71 (1.45, 2.01)	1.41 (1.25, 1.59)
Alcohol use						
None	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Light	0.96 (0.85, 1.09)	0.95 (0.85, 1.05)	1.35 (1.23, 1.49)	1.02 (0.88, 1.19)	1.05 (0.89, 1.24)	1.10 (0.97, 1.26)
Moderate	0.93 (0.80, 1.08)	0.90 (0.79, 1.04)	1.30 (1.16, 1.46)	0.97 (0.80, 1.17)	1.11 (0.90, 1.36)	1.02 (0.86, 1.20)
Heavy	0.99 (0.81, 1.20)	0.96 (0.82, 1.12)	1.66 (1.44, 1.90)	1.27 (1.04, 1.57)	1.10 (0.88, 1.38)	1.09 (0.91, 1.30)
Cannabis use						
None	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Within past 30 days	0.80 (0.69, 0.92)	1.08 (0.97, 1.22)	1.40 (1.27, 1.54)	1.42 (1.23, 1.64)	1.25 (1.04, 1.49)	1.11 (0.96, 1.28)
Cigarette smoking						
Never	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Former	0.78 (0.67, 0.89)	1.31 (1.17, 1.48)	1.19 (1.07, 1.32)	1.26 (1.06, 1.5)	1.40 (1.18, 1.65)	1.47 (1.28, 1.68)
Current light	0.56 (0.48, 0.66)	1.44 (1.28, 1.63)	0.77 (0.70, 0.86)	1.50 (1.28, 1.77)	1.61 (1.35, 1.94)	1.61 (1.40, 1.85)
Current heavy	0.41 (0.34, 0.50)	2.01 (1.75, 2.29)	0.77 (0.69, 0.87)	2.10 (1.78, 2.48)	2.07 (1.72, 2.49)	2.04 (1.76, 2.37)
E-cigarette use						
Not currently	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Currently	1.11 (0.90, 1.36)	1.26 (1.09, 1.46)	1.13 (0.98, 1.29)	1.22 (0.99, 1.50)	1.29 (1.01, 1.65)	1.31 (1.10, 1.55)
Other combustible use						
Not currently	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Currently	1.13 (0.93, 1.37)	1.03 (0.89, 1.20)	0.96 (0.84, 1.10)	1.08 (0.90, 1.31)	1.25 (0.99, 1.58)	1.10 (0.93, 1.31)
Smokeless tobacco use						
Not currently	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Currently	0.58 (0.44, 0.76)	0.95 (0.79, 1.13)	0.86 (0.74, 1.00)	1.14 (0.90, 1.43)	0.78 (0.58, 1.04)	0.84 (0.67, 1.05)

Models weighted using Wave 3 cross-sectional weights and survey weighting.
Abbreviations: AOR = adjusted odds ratio; CI = confidence interval

Appendix Table 2. Longitudinal associations between interdental cleaning and oral health: all covariables shown

OUTCOME >	SELF-RATED ORAL HEALTH EXCELLENT	PAST 12-MO. TOOTH EXTRACTION	PAST 12-MO. GUM BLEEDING	PAST 12-MO. LOOSE TEETH	PAST 12-MO. BONE LOSS	PAST 12-MO. GUM DISEASE
	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
Interdental cleaning						
None	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
1-2 times/week	0.86 (0.72, 1.02)	1.42 (1.17, 1.73)	1.12 (0.99, 1.27)	0.99 (0.77, 1.27)	1.20 (0.85, 1.68)	1.03 (0.74, 1.43)
3-4 times/week	0.89 (0.74, 1.07)	1.10 (0.89, 1.37)	1.02 (0.89, 1.18)	1.01 (0.77, 1.33)	0.95 (0.67, 1.36)	0.97 (0.69, 1.38)
5-6 times/week	1.13 (0.93, 1.37)	1.10 (0.87, 1.40)	0.84 (0.72, 0.97)	1.15 (0.87, 1.53)	1.14 (0.80, 1.62)	1.08 (0.77, 1.51)
≥7 times/week	1.37 (1.17, 1.62)	1.10 (0.92, 1.32)	0.62 (0.54, 0.70)	0.89 (0.70, 1.12)	1.15 (0.85, 1.55)	0.87 (0.65, 1.16)
Age						
18-24 years	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
25-34 years	0.78 (0.67, 0.90)	1.95 (1.59, 2.38)	0.77 (0.67, 0.88)	2.66 (2.04, 3.48)	2.63 (1.84, 3.75)	2.26 (1.60, 3.19)
35-44 years	0.68 (0.57, 0.80)	2.81 (2.30, 3.43)	0.68 (0.59, 0.78)	3.70 (2.79, 4.89)	4.33 (3.03, 6.16)	3.06 (2.14, 4.38)
45-54 years	0.63 (0.53, 0.76)	2.98 (2.43, 3.66)	0.47 (0.40, 0.55)	3.54 (2.65, 4.73)	4.58 (3.21, 6.55)	2.84 (2.00, 4.05)
55-64 years	0.51 (0.42, 0.62)	2.99 (2.33, 3.84)	0.20 (0.16, 0.25)	2.77 (1.97, 3.91)	4.23 (2.85, 6.27)	2.23 (1.47, 3.39)
≥65 years	0.58 (0.47, 0.71)	1.95 (1.59, 2.38)	0.77 (0.67, 0.88)	2.66 (2.04, 3.48)	2.63 (1.84, 3.75)	2.26 (1.60, 3.19)
Sex						
Male	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Female	1.26 (1.12, 1.41)	0.92 (0.80, 1.05)	1.03 (0.94, 1.13)	1.01 (0.84, 1.21)	0.90 (0.73, 1.10)	0.97 (0.78, 1.20)
Race/ethnicity						
Non-Hispanic White	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Non-Hispanic Black	0.88 (0.75, 1.03)	1.46 (1.23, 1.74)	0.68 (0.60, 0.77)	1.40 (1.12, 1.75)	1.41 (1.07, 1.85)	1.35 (1.01, 1.79)
Non-Hispanic Other	0.61 (0.47, 0.79)	1.18 (0.87, 1.60)	1.06 (0.89, 1.27)	1.28 (0.87, 1.90)	1.46 (0.95, 2.23)	1.72 (1.13, 2.61)
Hispanic/Latinx	0.86 (0.73, 1.01)	1.12 (0.93, 1.34)	0.82 (0.73, 0.93)	0.97 (0.77, 1.23)	1.09 (0.80, 1.49)	0.72 (0.52, 1.00)
Annual income						
<\$10,000	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
\$10,000 - \$24,999	0.76 (0.60, 0.96)	0.71 (0.58, 0.86)	0.94 (0.81, 1.09)	0.85 (0.68, 1.06)	0.62 (0.42, 0.91)	0.70 (0.47, 1.04)
\$25,000 - \$49,999	0.82 (0.66, 1.01)	0.59 (0.48, 0.72)	0.93 (0.80, 1.08)	0.61 (0.48, 0.78)	0.48 (0.33, 0.70)	0.63 (0.42, 0.95)
\$50,000 - \$99,999	1.06 (0.86, 1.30)	0.45 (0.36, 0.57)	0.87 (0.74, 1.02)	0.42 (0.31, 0.57)	0.46 (0.30, 0.71)	0.53 (0.34, 0.83)
≥\$100,000	1.36 (1.09, 1.70)	0.33 (0.25, 0.45)	0.91 (0.76, 1.09)	0.42 (0.28, 0.64)	0.41 (0.25, 0.66)	0.41 (0.25, 0.66)
Education						
Below high school	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
High school or GED	1.02 (0.80, 1.29)	0.80 (0.66, 0.97)	1.15 (0.98, 1.34)	0.81 (0.64, 1.03)	0.98 (0.66, 1.45)	1.28 (0.82, 2.00)
Some college	1.07 (0.85, 1.34)	0.63 (0.51, 0.77)	1.29 (1.10, 1.52)	0.84 (0.65, 1.09)	0.99 (0.66, 1.48)	1.04 (0.66, 1.62)
College degree	1.48 (1.16, 1.88)	0.42 (0.32, 0.55)	1.44 (1.20, 1.72)	0.50 (0.35, 0.73)	0.75 (0.48, 1.19)	1.16 (0.71, 1.89)

Diabetes history						
Never	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Ever	0.88 (0.74, 1.05)	1.25 (1.06, 1.48)	1.26 (1.10, 1.45)	1.32 (1.07, 1.63)	1.33 (1.04, 1.7)	1.53 (1.17, 1.99)
Body mass index						
<18.5	1.31 (0.91, 1.87)	1.46 (0.98, 2.17)	1.20 (0.90, 1.61)	1.71 (1.04, 2.82)	1.12 (0.59, 2.14)	2.31 (1.30, 4.10)
18.5 - 24.99	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
25 - 29.99	0.96 (0.84, 1.10)	1.28 (1.07, 1.52)	1.01 (0.91, 1.13)	0.88 (0.70, 1.11)	0.94 (0.74, 1.21)	1.31 (1.00, 1.72)
≥30	0.85 (0.74, 0.99)	1.44 (1.21, 1.71)	1.23 (1.10, 1.38)	1.16 (0.93, 1.44)	1.05 (0.82, 1.34)	1.24 (0.95, 1.62)
Recent dental cleaning						
No	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Yes (past 12-mos.)	1.79 (1.57, 2.06)	0.89 (0.77, 1.03)	0.76 (0.69, 0.84)	0.59 (0.49, 0.70)	0.74 (0.58, 0.95)	0.76 (0.60, 0.96)
Alcohol use						
None	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Light	0.96 (0.84, 1.10)	0.89 (0.76, 1.04)	1.17 (1.05, 1.31)	0.98 (0.80, 1.21)	1.05 (0.81, 1.35)	1.12 (0.86, 1.45)
Moderate	0.98 (0.84, 1.15)	0.81 (0.65, 1.00)	1.12 (0.98, 1.28)	0.78 (0.61, 1.01)	1.03 (0.75, 1.41)	0.90 (0.65, 1.24)
Heavy	1.04 (0.85, 1.28)	0.75 (0.59, 0.96)	1.24 (1.06, 1.45)	1.01 (0.75, 1.37)	1.71 (1.22, 2.39)	1.23 (0.87, 1.73)
Cannabis use						
None	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Within past 30 days	0.80 (0.68, 0.93)	1.09 (0.94, 1.26)	1.42 (1.28, 1.58)	1.57 (1.30, 1.88)	1.18 (0.89, 1.56)	1.14 (0.89, 1.45)
Cigarette smoking						
Never	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Former	0.98 (0.85, 1.14)	1.22 (1.01, 1.47)	1.23 (1.08, 1.39)	1.49 (1.16, 1.91)	1.53 (1.19, 1.96)	1.24 (0.95, 1.62)
Current light	0.51 (0.43, 0.61)	1.62 (1.38, 1.90)	0.95 (0.85, 1.06)	2.18 (1.75, 2.71)	1.78 (1.38, 2.30)	1.63 (1.26, 2.11)
Current heavy	0.37 (0.30, 0.45)	2.07 (1.73, 2.46)	0.82 (0.72, 0.94)	2.46 (1.95, 3.11)	2.32 (1.74, 3.09)	2.10 (1.57, 2.80)
E-cigarette use						
Not currently	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Currently	0.92 (0.74, 1.14)	1.13 (0.91, 1.39)	1.03 (0.89, 1.18)	1.03 (0.80, 1.33)	1.05 (0.76, 1.43)	1.09 (0.78, 1.52)
Other combustible use						
Not currently	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Currently	1.07 (0.86, 1.32)	1.20 (0.99, 1.46)	0.94 (0.81, 1.10)	1.16 (0.92, 1.47)	1.09 (0.77, 1.54)	1.10 (0.78, 1.56)
Smokeless tobacco use						
Not currently	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
Currently	0.51 (0.39, 0.66)	1.38 (1.07, 1.79)	0.94 (0.78, 1.12)	1.31 (0.92, 1.86)	1.04 (0.63, 1.74)	1.84 (1.18, 2.86)

Models weighted using Wave 4 all-wave longitudinal weights and survey weighting.
Abbreviations: AOR = adjusted odds ratio; CI = confidence interval

Appendix Table 3. Longitudinal associations between interdental cleaning and oral health (new events): all covariables shown

OUTCOME >	PAST 12-MO. TOOTH EXTRACTION	PAST 12-MO. GUM BLEEDING	PAST 12-MO. LOOSE TEETH	PAST 12-MO. BONE LOSS	PAST 12-MO. GUM DISEASE
	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
Interdental cleaning					
None	(reference)	(reference)	(reference)	(reference)	(reference)
1-2 times/week	1.22 (0.88, 1.71)	1.20 (0.96, 1.50)	1.05 (0.73, 1.53)	1.57 (1.02, 2.43)	0.91 (0.54, 1.53)
3-4 times/week	0.92 (0.65, 1.31)	1.12 (0.87, 1.43)	1.13 (0.73, 1.76)	0.96 (0.58, 1.58)	0.53 (0.28, 0.98)
5-6 times/week	0.56 (0.37, 0.85)	0.81 (0.62, 1.06)	1.25 (0.83, 1.88)	1.18 (0.73, 1.89)	0.56 (0.03, 1.04)
≥7 times/week	1.35 (1.01, 1.82)	0.86 (0.69, 1.06)	1.05 (0.73, 1.51)	1.14 (0.76, 1.71)	0.69 (0.41, 1.16)
Age					
18-24 years	(reference)	(reference)	(reference)	(reference)	(reference)
25-34 years	1.26 (0.93, 1.71)	0.81 (0.67, 0.97)	1.37 (0.97, 1.95)	2.13 (1.36, 3.31)	1.66 (0.97, 2.82)
35-44 years	1.30 (0.92, 1.85)	0.55 (0.43, 0.69)	1.62 (1.12, 2.35)	2.11 (1.33, 3.36)	1.51 (0.86, 2.66)
45-54 years	1.96 (1.39, 2.76)	0.58 (0.44, 0.75)	2.31 (1.54, 3.45)	3.63 (2.30, 5.71)	1.50 (0.81, 2.79)
55-64 years	2.04 (1.40, 2.96)	0.32 (0.24, 0.43)	2.17 (1.44, 3.27)	2.55 (1.55, 4.21)	1.62 (0.83, 3.17)
≥65 years	2.38 (1.49, 3.80)	0.13 (0.09, 0.19)	1.84 (1.14, 2.99)	2.95 (1.62, 5.37)	1.29 (0.66, 2.53)
Sex					
Male	(reference)	(reference)	(reference)	(reference)	(reference)
Female	0.97 (0.76, 1.24)	1.17 (0.99, 1.38)	1.00 (0.75, 1.32)	0.94 (0.71, 1.25)	1.01 (0.68, 1.50)
Race/ethnicity					
Non-Hispanic White	(reference)	(reference)	(reference)	(reference)	(reference)
Non-Hispanic Black	2.04 (1.53, 2.71)	0.92 (0.73, 1.14)	1.55 (1.12, 2.13)	1.52 (1.02, 2.28)	1.05 (0.65, 1.71)
Non-Hispanic Other	1.79 (1.07, 3.00)	1.28 (0.93, 1.76)	1.13 (0.63, 2.05)	2.14 (1.25, 3.65)	1.43 (0.69, 2.99)
Hispanic/Latinx	1.53 (1.11, 2.10)	1.15 (0.92, 1.42)	0.97 (0.69, 1.36)	1.36 (0.89, 2.07)	0.68 (0.39, 1.21)
Annual income					
<\$10,000	(reference)	(reference)	(reference)	(reference)	(reference)
\$10,000 - \$24,999	0.81 (0.58, 1.11)	0.82 (0.65, 1.05)	0.66 (0.48, 0.92)	0.57 (0.35, 0.93)	0.71 (0.38, 1.31)
\$25,000 - \$49,999	0.60 (0.41, 0.86)	0.75 (0.58, 0.96)	0.54 (0.38, 0.77)	0.46 (0.28, 0.76)	0.74 (0.41, 1.35)
\$50,000 - \$99,999	0.45 (0.30, 0.68)	0.75 (0.56, 1.00)	0.34 (0.21, 0.56)	0.37 (0.21, 0.68)	0.60 (0.30, 1.21)
≥\$100,000	0.39 (0.23, 0.66)	0.78 (0.56, 1.07)	0.54 (0.33, 0.90)	0.35 (0.18, 0.68)	0.39 (0.18, 0.83)
Education					
Below high school	(reference)	(reference)	(reference)	(reference)	(reference)
High school or GED	0.71 (0.51, 1.00)	1.07 (0.81, 1.42)	0.91 (0.63, 1.32)	1.13 (0.68, 1.87)	1.27 (0.66, 2.44)
Some college	0.48 (0.33, 0.69)	1.23 (0.92, 1.64)	0.79 (0.52, 1.19)	0.97 (0.57, 1.65)	0.74 (0.38, 1.46)
College degree	0.48 (0.30, 0.76)	1.58 (1.14, 2.19)	0.42 (0.24, 0.72)	0.84 (0.45, 1.58)	0.69 (0.33, 1.46)

Diabetes history					
Never	(reference)	(reference)	(reference)	(reference)	(reference)
Ever	1.17 (0.85, 1.61)	1.30 (1.02, 1.65)	1.35 (0.95, 1.91)	1.31 (0.89, 1.92)	1.59 (0.93, 2.74)
Body mass index					
<18.5	1.96 (1.04, 3.70)	1.11 (0.64, 1.92)	1.44 (0.63, 3.32)	1.16 (0.54, 2.52)	3.11 (1.36, 7.09)
18.5 - 24.99	(reference)	(reference)	(reference)	(reference)	(reference)
25 - 29.99	1.34 (0.99, 1.81)	0.96 (0.79, 1.16)	0.94 (0.67, 1.33)	0.94 (0.67, 1.32)	1.21 (0.74, 1.99)
≥30	1.38 (1.01, 1.88)	1.03 (0.86, 1.25)	0.97 (0.70, 1.34)	0.80 (0.56, 1.13)	1.30 (0.78, 2.14)
Recent dental cleaning					
No	(reference)	(reference)	(reference)	(reference)	(reference)
Yes (past 12-mos.)	0.73 (0.57, 0.93)	0.74 (0.62, 0.88)	0.60 (0.46, 0.79)	0.60 (0.44, 0.83)	0.43 (0.29, 0.63)
Alcohol use					
None	(reference)	(reference)	(reference)	(reference)	(reference)
Light	0.98 (0.74, 1.28)	1.12 (0.93, 1.35)	0.82 (0.59, 1.15)	0.90 (0.62, 1.32)	1.20 (0.77, 1.88)
Moderate	0.65 (0.45, 0.95)	0.92 (0.72, 1.17)	0.78 (0.54, 1.13)	0.89 (0.55, 1.44)	0.93 (0.47, 1.86)
Heavy	0.75 (0.48, 1.17)	0.96 (0.71, 1.29)	1.10 (0.67, 1.81)	1.61 (1.00, 2.57)	1.39 (0.73, 2.65)
Cannabis use					
None	(reference)	(reference)	(reference)	(reference)	(reference)
Within past 30 days	0.86 (0.66, 1.11)	1.35 (1.13, 1.62)	1.40 (1.07, 1.84)	1.28 (0.87, 1.89)	1.14 (0.78, 1.67)
Cigarette smoking					
Never	(reference)	(reference)	(reference)	(reference)	(reference)
Former	1.26 (0.89, 1.79)	1.53 (1.22, 1.93)	1.59 (1.09, 2.33)	1.11 (0.75, 1.65)	1.38 (0.85, 2.25)
Current light	1.99 (1.49, 2.67)	1.38 (1.14, 1.65)	2.23 (1.65, 3.03)	1.74 (1.24, 2.45)	1.48 (0.94, 2.33)
Current heavy	2.30 (1.66, 3.18)	1.11 (0.88, 1.41)	2.07 (1.43, 3.01)	2.08 (1.39, 3.11)	1.31 (0.75, 2.29)
E-cigarette use					
Not currently	(reference)	(reference)	(reference)	(reference)	(reference)
Currently	0.98 (0.67, 1.43)	1.10 (0.86, 1.41)	1.01 (0.70, 1.47)	0.97 (0.64, 1.48)	0.61 (0.33, 1.12)
Other combustible use					
Not currently	(reference)	(reference)	(reference)	(reference)	(reference)
Currently	1.29 (0.94, 1.77)	1.03 (0.77, 1.38)	1.27 (0.92, 1.76)	1.16 (0.75, 1.82)	1.04 (0.63, 1.71)
Smokeless tobacco use					
Not currently	(reference)	(reference)	(reference)	(reference)	(reference)
Currently	1.30 (0.83, 2.02)	0.87 (0.63, 1.20)	0.85 (0.51, 1.41)	1.42 (0.72, 2.82)	1.51 (0.75, 3.07)

Models weighted using Wave 4 all-wave longitudinal weights and survey weighting. Analyses restricted to respondents reporting no history of the outcome at Wave 3.

Abbreviations: AOR = adjusted odds ratio; CI = confidence interval

Appendix Table 4. Associations between interdental cleaning and oral health: interdental cleaning specified as a three-level category

	Cross-Sectional	Longitudinal	Longitudinal (New Events)
OUTCOME > SELF-RATED ORAL HEALTH EXCELLENT			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	
None (reference)	--	--	
1-4 times/week	0.87 (0.76, 1.01)	0.96 (0.82, 1.11)	
≥5 times/week	1.47 (1.28, 1.69)	1.48 (1.27, 1.71)	
OUTCOME > EVER TOOTH EXTRACTION PAST 12-MONTH TOOTH EXTRACTION			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-4 times/week	1.42 (1.25, 1.60)	1.25 (1.06, 1.47)	1.09 (0.83, 1.44)
≥5 times/week	1.31 (1.17, 1.48)	1.07 (0.91, 1.25)	1.13 (0.86, 1.48)
OUTCOME > EVER GUM BLEEDING PAST 12-MONTH GUM BLEEDING			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-4 times/week	1.20 (1.09, 1.32)	1.03 (0.93, 1.15)	1.10 (0.91, 1.33)
≥5 times/week	0.75 (0.68, 0.82)	0.63 (0.57, 0.71)	0.78 (0.65, 0.94)
OUTCOME > EVER LOOSE TEETH PAST 12-MONTH LOOSE TEETH			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-4 times/week	0.93 (0.80, 1.08)	0.90 (0.73, 1.11)	0.99 (0.71, 1.36)
≥5 times/week	0.83 (0.72, 0.96)	0.82 (0.67, 1.00)	0.95 (0.70, 1.30)
OUTCOME > EVER BONE LOSS PAST 12-MONTH BONE LOSS			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-4 times/week	1.33 (1.10, 1.61)	1.04 (0.77, 1.39)	1.18 (0.80, 1.73)
≥5 times/week	1.60 (1.34, 1.91)	1.08 (0.82, 1.42)	1.03 (0.71, 1.48)
OUTCOME > EVER GUM DISEASE PAST 12-MONTH GUM DISEASE			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-4 times/week	1.10 (0.96, 1.27)	0.97 (0.73, 1.28)	0.66 (0.42, 1.03)
≥5 times/week	1.08 (0.94, 1.24)	0.87 (0.67, 1.15)	0.55 (0.34, 0.87)

Cross-sectional models weighted using Wave 3 cross-sectional weights and survey weighting. Longitudinal models weighted using Wave 4 all-wave longitudinal weights and survey weighting. Analyses of new events restricted to respondents reporting no history of the outcome at Wave 3.

Abbreviation: CI = confidence interval

Appendix Table 5. Associations between interdental cleaning and oral health: Wave 4 tooth brushing behavior included as model covariable

	Cross-Sectional	Longitudinal	Longitudinal (New Events)
OUTCOME > SELF-RATED ORAL HEALTH EXCELLENT			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	
None (reference)	--	--	
1-2 times/week	0.68 (0.58, 0.81)	0.82 (0.68, 0.98)	
3-4 times/week	0.83 (0.69, 0.99)	0.82 (0.68, 1.00)	
5-6 times/week	0.96 (0.80, 1.16)	1.04 (0.85, 1.26)	
≥7 times/week	1.27 (1.08, 1.48)	1.25 (1.06, 1.47)	
OUTCOME > EVER TOOTH EXTRACTION			
PAST 12-MONTH TOOTH EXTRACTION			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.53 (1.33, 1.76)	1.47 (1.20, 1.79)	1.22 (0.87, 1.71)
3-4 times/week	1.44 (1.23, 1.68)	1.14 (0.92, 1.42)	0.91 (0.63, 1.30)
5-6 times/week	1.45 (1.24, 1.70)	1.15 (0.90, 1.45)	0.55 (0.36, 0.83)
≥7 times/week	1.39 (1.23, 1.58)	1.15 (0.96, 1.38)	1.32 (0.97, 1.79)
OUTCOME > EVER GUM BLEEDING			
PAST 12-MONTH GUM BLEEDING			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.30 (1.17, 1.46)	1.19 (1.05, 1.35)	1.24 (0.99, 1.55)
3-4 times/week	1.31 (1.16, 1.48)	1.12 (0.97, 1.28)	1.16 (0.90, 1.49)
5-6 times/week	1.06 (0.93, 1.22)	0.92 (0.79, 1.07)	0.85 (0.65, 1.12)
≥7 times/week	0.77 (0.69, 0.85)	0.69 (0.61, 0.78)	0.91 (0.73, 1.13)
OUTCOME > EVER LOOSE TEETH			
PAST 12-MONTH LOOSE TEETH			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.01 (0.85, 1.21)	1.06 (0.82, 1.35)	1.10 (0.76, 1.61)
3-4 times/week	1.14 (0.93, 1.39)	1.09 (0.83, 1.44)	1.20 (0.76, 1.88)
5-6 times/week	1.03 (0.83, 1.28)	0.26 (0.94, 1.68)	1.32 (0.87, 2.02)
≥7 times/week	1.01 (0.86, 1.19)	0.99 (0.77, 1.25)	1.14 (0.78, 1.65)
OUTCOME > EVER BONE LOSS			
PAST 12-MONTH BONE LOSS			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.29 (1.03, 1.62)	1.22 (0.87, 1.72)	1.60 (1.02, 2.52)
3-4 times/week	1.11 (0.88, 1.41)	0.98 (0.68, 1.41)	0.98 (0.59, 1.64)
5-6 times/week	1.41 (1.10, 1.80)	1.18 (0.82, 1.68)	1.21 (0.74, 1.98)
≥7 times/week	1.40 (1.16, 1.70)	1.19 (0.88, 1.62)	1.18 (0.77, 1.80)
OUTCOME > EVER GUM DISEASE			
PAST 12-MONTH GUM DISEASE			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.07 (0.91, 1.27)	1.06 (0.76, 1.49)	0.87 (0.50, 1.50)
3-4 times/week	1.10 (0.92, 1.31)	1.02 (0.72, 1.45)	0.50 (0.27, 0.93)
5-6 times/week	1.12 (0.93, 1.34)	1.14 (0.81, 1.61)	0.52 (0.28, 0.97)
≥7 times/week	1.03 (0.89, 1.20)	0.92 (0.68, 1.25)	0.64 (0.38, 1.06)

Cross-sectional models weighted using Wave 3 cross-sectional weights and survey weighting. Longitudinal models weighted using Wave 4 all-wave longitudinal weights and survey weighting. Analyses of new events restricted to respondents reporting no history of the outcome at Wave 3.

Abbreviation: CI = confidence interval

Appendix Table 6. Longitudinal associations between interdental cleaning and oral health: collider bias assessment

Longitudinal Outcomes (Wave 4, All Events)						
OUTCOME >	SELF-RATED ORAL HEALTH EXCELLENT	PAST 12-MONTH EXTRACTION	PAST 12-MONTH GUM BLEEDING	PAST 12-MONTH LOOSE TEETH	PAST 12-MONTH BONE LOSS	PAST 12-MONTH GUM DISEASE
Full sample						
Interdental cleaning	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)		
None	(reference)	(reference)	(reference)	(reference)		
1-2 times/week	0.86 (0.72, 1.02)	1.42 (1.17, 1.73)	1.12 (0.99, 1.27)	0.99 (0.77, 1.27)	N/A	N/A
3-4 times/week	0.89 (0.74, 1.07)	1.10 (0.89, 1.37)	1.02 (0.89, 1.18)	1.01 (0.77, 1.33)		
5-6 times/week	1.13 (0.93, 1.37)	1.10 (0.87, 1.40)	0.84 (0.72, 0.97)	1.15 (0.87, 1.53)		
≥7 times/week	1.37 (1.17, 1.62)	1.10 (0.92, 1.32)	0.62 (0.54, 0.70)	0.89 (0.70, 1.12)		
Restricted to Wave 4 past 12-month dental visitors						
Interdental cleaning	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
None	(reference)	(reference)	(reference)	(reference)	(reference)	(reference)
1-2 times/week	0.88 (0.70, 1.10)	1.23 (0.93, 1.63)	1.04 (0.87, 1.24)	1.00 (0.67, 1.50)	1.20 (0.85, 1.68)	1.03 (0.74, 1.43)
3-4 times/week	0.89 (0.71, 1.13)	0.83 (0.62, 1.11)	1.01 (0.83, 1.22)	0.96 (0.63, 1.46)	0.95 (0.67, 1.36)	0.97 (0.69, 1.38)
5-6 times/week	1.26 (0.99, 1.60)	0.87 (0.64, 1.18)	0.83 (0.68, 1.01)	1.06 (0.70, 1.61)	1.14 (0.80, 1.62)	1.08 (0.77, 1.51)
≥7 times/week	1.42 (1.15, 1.74)	0.87 (0.68, 1.11)	0.55 (0.46, 0.65)	0.85 (0.59, 1.23)	1.15 (0.85, 1.55)	0.87 (0.65, 1.16)
Longitudinal Outcomes (Wave 4, New Events Only)						
OUTCOME >		PAST 12-MONTH EXTRACTION	PAST 12-MONTH GUM BLEEDING	PAST 12-MONTH LOOSE TEETH	PAST 12-MONTH BONE LOSS	PAST 12-MONTH GUM DISEASE
Full sample						
Interdental cleaning		AOR (95% CI)	AOR (95% CI)	AOR (95% CI)		
None		(reference)	(reference)	(reference)		
1-2 times/week		1.22 (0.88, 1.71)	1.20 (0.96, 1.50)	1.05 (0.73, 1.53)	N/A	N/A
3-4 times/week		0.92 (0.65, 1.31)	1.12 (0.87, 1.43)	1.13 (0.73, 1.76)		
5-6 times/week		0.56 (0.37, 0.85)	0.81 (0.62, 1.06)	1.25 (0.83, 1.88)		
≥7 times/week		1.35 (1.01, 1.82)	0.86 (0.69, 1.06)	1.05 (0.73, 1.51)		
Restricted to Wave 4 past 12-month dental visitors						
Interdental cleaning		AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)	AOR (95% CI)
None		(reference)	(reference)	(reference)	(reference)	(reference)
1-2 times/week		1.20 (0.75, 1.92)	1.17 (0.86, 1.60)	1.04 (0.59, 1.83)	1.57 (1.02, 2.43)	0.91 (0.54, 1.53)
3-4 times/week		0.84 (0.52, 1.35)	1.21 (0.87, 1.70)	1.03 (0.56, 1.89)	0.96 (0.58, 1.58)	0.53 (0.28, 0.98)
5-6 times/week		0.51 (0.30, 0.88)	0.80 (0.56, 1.14)	0.95 (0.51, 1.75)	1.18 (0.73, 1.89)	0.56 (0.30, 1.04)
≥7 times/week		1.13 (0.76, 1.69)	0.83 (0.63, 1.10)	0.90 (0.53, 1.51)	1.14 (0.76, 1.71)	0.69 (0.41, 1.16)

Models weighted using Wave 4 all-wave longitudinal weights and survey weighting. Analyses of new events restricted to respondents reporting no history of the outcome at Wave 3. Abbreviations: AOR = adjusted odds ratio; CI = confidence interval; N/A = not applicable (survey did not assess these outcomes in the full sample)

Appendix Table 7. Associations between interdental cleaning and oral health: complete case analysis with balanced repeated replicate weighting

	Cross-Sectional	Longitudinal	Longitudinal (New Events)
OUTCOME > SELF-RATED ORAL HEALTH EXCELLENT			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	
None (reference)	--	--	
1-2 times/week	0.69 (0.59, 0.81)	0.86 (0.70, 1.05)	
3-4 times/week	0.81 (0.68, 0.97)	0.90 (0.74, 1.10)	
5-6 times/week	0.94 (0.76, 1.15)	1.11 (0.89, 1.39)	
≥7 times/week	1.31 (1.11, 1.55)	1.38 (1.16, 1.64)	
OUTCOME > EVER TOOTH EXTRACTION			
PAST 12-MONTH TOOTH EXTRACTION			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.47 (1.26, 1.72)	1.33 (1.08, 1.65)	1.22 (0.83, 1.79)
3-4 times/week	1.44 (1.23, 1.68)	1.09 (0.88, 1.35)	0.95 (0.64, 1.42)
5-6 times/week	1.34 (1.16, 1.54)	1.05 (0.82, 1.35)	0.57 (0.38, 0.87)
≥7 times/week	1.34 (1.17, 1.53)	1.02 (0.87, 1.21)	1.27 (0.94, 1.70)
OUTCOME > EVER GUM BLEEDING			
PAST 12-MONTH GUM BLEEDING			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.20 (1.06, 1.35)	1.15 (0.99, 1.33)	1.20 (0.95, 1.51)
3-4 times/week	1.24 (1.08, 1.41)	1.07 (0.91, 1.26)	1.17 (0.87, 1.57)
5-6 times/week	0.97 (0.85, 1.11)	0.84 (0.71, 1.00)	0.83 (0.62, 1.11)
≥7 times/week	0.71 (0.63, 0.79)	0.64 (0.55, 0.74)	0.90 (0.71, 1.15)
OUTCOME > EVER LOOSE TEETH			
PAST 12-MONTH LOOSE TEETH			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.00 (0.84, 1.19)	0.93 (0.73, 1.19)	1.02 (0.65, 1.60)
3-4 times/week	1.12 (0.91, 1.38)	0.97 (0.75, 1.27)	1.09 (0.66, 1.78)
5-6 times/week	0.96 (0.74, 1.25)	1.11 (0.76, 1.62)	1.15 (0.75, 1.76)
≥7 times/week	1.01 (0.86, 1.19)	0.84 (0.64, 1.10)	0.96 (0.64, 1.44)
OUTCOME > EVER BONE LOSS			
PAST 12-MONTH BONE LOSS			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.31 (1.01, 1.70)	1.21 (0.84, 1.75)	1.67 (1.01, 2.77)
3-4 times/week	1.15 (0.88, 1.51)	0.96 (0.65, 1.40)	1.00 (0.54, 1.85)
5-6 times/week	1.35 (1.06, 1.73)	1.08 (0.74, 1.59)	1.23 (0.74, 2.06)
≥7 times/week	1.43 (1.15, 1.78)	1.16 (0.85, 1.59)	1.21 (0.78, 1.88)
OUTCOME > EVER GUM DISEASE			
PAST 12-MONTH GUM DISEASE			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.06 (0.88, 1.27)	1.08 (0.73, 1.59)	0.95 (0.52, 1.75)
3-4 times/week	1.05 (0.87, 1.28)	1.06 (0.71, 1.58)	0.58 (0.28, 1.21)
5-6 times/week	1.04 (0.85, 1.26)	1.18 (0.81, 1.72)	0.64 (0.32, 1.29)
≥7 times/week	1.01 (0.86, 1.19)	0.92 (0.66, 1.28)	0.72 (0.41, 1.27)

Cross-sectional models weighted using Wave 3 cross-sectional weights and balanced repeated replicate weighting. Longitudinal models weighted using Wave 4 all-wave longitudinal weights and balanced repeated replicate weighting. Analyses of new events restricted to respondents reporting no history of the outcome at Wave 3. All analyses restricted to observations with no missing data. Abbreviation: CI = confidence interval

Appendix Table 8. Associations between interdental cleaning and oral health: complete case analysis with survey weighting

	Cross-Sectional	Longitudinal	Longitudinal (New Events)
OUTCOME > SELF-RATED ORAL HEALTH EXCELLENT			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	
None (reference)	--	--	
1-2 times/week	0.69 (0.58, 0.82)	0.86 (0.71, 1.03)	
3-4 times/week	0.81 (0.67, 0.98)	0.90 (0.74, 1.10)	
5-6 times/week	0.94 (0.77, 1.14)	1.11 (0.91, 1.36)	
≥7 times/week	1.31 (1.11, 1.55)	1.38 (1.16, 1.63)	
OUTCOME > EVER TOOTH EXTRACTION PAST 12-MONTH TOOTH EXTRACTION			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.47 (1.27, 1.71)	1.33 (1.08, 1.64)	1.22 (0.85, 1.75)
3-4 times/week	1.44 (1.22, 1.69)	1.09 (0.87, 1.37)	0.95 (0.66, 1.39)
5-6 times/week	1.34 (1.13, 1.58)	1.05 (0.82, 1.35)	0.57 (0.37, 0.89)
≥7 times/week	1.34 (1.17, 1.53)	1.02 (0.85, 1.24)	1.27 (0.92, 1.75)
OUTCOME > EVER GUM BLEEDING PAST 12-MONTH GUM BLEEDING			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.20 (1.07, 1.35)	1.15 (1.01, 1.31)	1.20 (0.95, 1.52)
3-4 times/week	1.24 (1.09, 1.41)	1.07 (0.93, 1.24)	1.17 (0.90, 1.51)
5-6 times/week	0.97 (0.84, 1.12)	0.84 (0.72, 0.99)	0.83 (0.62, 1.10)
≥7 times/week	0.71 (0.63, 0.79)	0.64 (0.56, 0.73)	0.90 (0.72, 1.13)
OUTCOME > EVER LOOSE TEETH PAST 12-MONTH LOOSE TEETH			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.00 (0.83, 1.20)	0.93 (0.71, 1.21)	1.02 (0.68, 1.53)
3-4 times/week	1.12 (0.90, 1.39)	0.97 (0.73, 1.30)	1.09 (0.68, 1.73)
5-6 times/week	0.96 (0.76, 1.21)	1.11 (0.82, 1.49)	1.15 (0.74, 1.78)
≥7 times/week	1.01 (0.85, 1.20)	0.84 (0.65, 1.08)	0.96 (0.65, 1.43)
OUTCOME > EVER BONE LOSS PAST 12-MONTH BONE LOSS			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.31 (1.03, 1.66)	1.21 (0.85, 1.73)	1.67 (1.05, 2.65)
3-4 times/week	1.15 (0.90, 1.47)	0.96 (0.66, 1.39)	1.00 (0.58, 1.72)
5-6 times/week	1.35 (1.05, 1.74)	1.08 (0.75, 1.57)	1.23 (0.74, 2.04)
≥7 times/week	1.43 (1.18, 1.75)	1.16 (0.85, 1.59)	1.21 (0.79, 1.85)
OUTCOME > EVER GUM DISEASE PAST 12-MONTH GUM DISEASE			
Interdental cleaning	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)
None (reference)	--	--	--
1-2 times/week	1.06 (0.89, 1.26)	1.08 (0.76, 1.53)	0.95 (0.54, 1.70)
3-4 times/week	1.05 (0.87, 1.27)	1.06 (0.74, 1.52)	0.58 (0.30, 1.14)
5-6 times/week	1.04 (0.85, 1.26)	1.18 (0.83, 1.69)	0.64 (0.33, 1.22)
≥7 times/week	1.01 (0.87, 1.18)	0.92 (0.68, 1.26)	0.72 (0.40, 1.30)

Cross-sectional models weighted using Wave 3 cross-sectional weights and survey weighting. Longitudinal models weighted using Wave 4 all-wave longitudinal weights and survey weighting. Analyses of new events restricted to respondents reporting no history of the outcome at Wave 3. All analyses restricted to observations with no missing data. Abbreviation: CI = confidence interval