

Appendix (Supplementary Tables)

Table S1: Distribution of the number of NCTD restorations placed per patient, by reason for the restoration.

<i>Number of restorations per patient</i>	AAE	Tooth fracture	Cosmetic reasons	Others
0 [N (%)]	539 (62%)	504 (58%)	834 (95%)	729 (83%)
1 [N (%)]	176 (20%)	338 (39%)	18 (2%)	109 (12%)
2 [N (%)]	87 (10%)	27 (3%)	7 (1%)	21 (2%)
3 [N (%)]	37 (4%)	3 (0%)	5 (1%)	7 (1%)
4 [N (%)]	35 (4%)	2 (0%)	10 (1%)	8 (1%)
Total	874 (100%)	874 (100%)	874 (100%)	874 (100%)

Counts are the number of patients, not the number of restorations. Percentages are within columns for each NCTD type of restoration. AAE: abrasion, abfraction, or erosion lesions; Others: developmental defects or hypoplasia, endodontically-treated teeth, or other unspecified reasons.

Table S2: Multiple logistic regression analysis of the reasons for restoring NCTD.

		AAE	Tooth fracture	Cosmetic reasons	Others
Patient	Gender	0.4245	0.2175	0.6462	0.9526
	Age group in years	< 0.0001 (<0.0001)	0.7449	0.5217	<0.0001 (<0.0001)
Dentist	Years of experience	0.4189	0.66	0.6492	0.541
	Visits per week	0.0459	0.2606	0.7798	0.1991
	Risk assessment	0.0871	0.3243	0.0819	0.2241
	Type of practice	0.1914	0.0056	xxxx	0.387
Tooth	Type	< 0.0001 (< 0.0001)	< 0.0001 (0.0009)	0.0002 (0.0003)	< 0.0001 (0.0039)
	Location	0.973	0.2799	0.0969	0.001 (0.0014)
	Surface	< 0.0001 (<0.0001)	< 0.0001(<0.0001)	0.0495	0.0055 (0.0381)
DPBRN region		0.0151 (0.0346)	0.0032	xxxx	0.6992

The table shows p-values for univariate predictors of reasons for restoring NCTD and in parenthesis p-values for final multivariable models. Variables significant at $p < 0.10$ in the individual models were included in the respective block model. Variables significant at $p < 0.05$ in the block models were used along with DPBRN regions in a single multivariable model. Variables which were significant at $p < 0.05$ in this model were retained in a final multivariable model. This process was conducted separately for each of the four reasons for NCTD restoration. AAE: abrasion, abfraction, or erosion lesions; Others: developmental defects or hypoplasia, endodontically-treated teeth, or other unspecified reasons; “xxxx”: the estimation algorithm failed to converge.

Table S3: Number and percentage of DPBRN dentists and patients participating in the study and number and percentage of restorations placed by dentists from each DPBRN region.

	AL/MS	FL/GA	MN	PDA	SK	Total
Dentists [N (%)]	46 (26)	32 (18)	24 (14)	40 (22)	36 (20)	178 (100)
Patients [N (%)]	197 (23)	211 (24)	103 (12)	175 (20)	188 (21)	874 (100)
NCTD Restorations [N (%)]	332 (26)	316 (24)	131 (10)	268 (21)	254 (19)	1301 (100)

Percentages are within rows for each variable. NCTD: non-cariou tooth defects; AL/MS: Alabama/Mississippi; FL/GA: Florida/Georgia; MN: dentists employed by HealthPartners and other practitioners in Minnesota; PDA: Permanente Dental Associates in cooperation with Kaiser Permanente Center for Health Research, Portland, Oregon; and SK: Denmark, Norway, and Sweden.

Table S4: Distribution of reasons for the restoration, by tooth characteristics and type of restorative material used.

Restorative Material	Tooth	AAE	Tooth fracture	Cosmetic reasons	Others	Total
Amalgam	Molar	3 (4%)	52 (78%)	0	12 (18%)	67 (100%)
	Premolar	2 (8%)	16 (67%)	0	6 (25%)	24 (100%)
	Anterior	0	0	0	0	0
	Maxillary	0	36 (90%)	0	4 (10%)	10 (100%)
	Mandibular	5 (10%)	32 (63%)	0	14 (27%)	51 (100%)
	O and/or I	1 (20%)	0	0	4 (80%)	5 (100%)
	M and/or D	0	21 (81%)	0	5(19%)	26 (100%)
	B and/or L	3 (20%)	9 (60%)	0	3(20%)	15 (100%)
	Multiple (O/I/M/D/B/L)	1 (2%)	36 (86%)	0	5(12%)	42(100%)
	Direct Composite Resin (RBC)	Molar	94 (35%)	81 (30%)	1 (0%)	91 (34%)
Premolar		259 (81%)	33 (10%)	5 (2%)	23 (7%)	320 (100%)
Anterior		213 (45%)	159 (34%)	71 (15%)	28 (6%)	471 (100%)
Maxillary		308 (51%)	169 (28%)	59 (10%)	65 (11%)	601 (100%)
Mandibular		258 (56%)	104 (23%)	18 (4%)	77 (17%)	457 (100%)
O and/or I		74 (37%)	30 (15%)	13 (7%)	82 (41%)	199 (100%)
M and/or D		7 (14%)	20 (41%)	12 (24%)	10 (20%)	49 (100%)
B and/or L		436 (82%)	46(9%)	16 (3%)	32 (6%)	530 (100%)
Multiple (O/I/M/D/B/L)		45 (17%)	173 (64%)	35 (13%)	16 (6%)	269 (100%)
Glass ionomer (GI/RMGI)		Molar	5 (50%)	2 (20%)	0	3 (30%)
	Premolar	14 (88%)	1 (6%)	0	1 (6%)	16 (100%)

	Anterior	5 (50%)	0	1 (10%)	4 (40%)	10 (100%)
	Maxillary	15 (75%)	2 (10%)	1 (5%)	2 (10%)	20 (100%)
	Mandibular	9 (56%)	1 (6%)	0	6 (38%)	16 (100%)
	O and/or I	6 (75%)	0	0	2 (25%)	8 (100%)
	M and/or D	0	0	0	0	0
	B and/or L	15 (75%)	0	0	5 (25%)	20 (100%)
	Multiple (O/I/M/D/B/L)	3 (38%)	3 (38%)	1 (13%)	1 (13%)	8 (100%)
Others	Molar	0	25 (69%)	0	11 (31%)	36 (100%)
	Premolar	0	11 (61%)	1 (6%)	6 (33%)	18 (100%)
	Anterior	4 (18%)	1 (5%)	8 (36%)	9 (41%)	22 (100%)
	Maxillary	4 (9%)	15 (34%)	9 (20%)	16 (36%)	44 (100%)
	Mandibular	0	22 (69%)	0	10 (31%)	32 (100%)
	O and/or I	0	0	0	2 (100%)	2 (100%)
	M and/or D	0	9 (100%)	0	0	9 (100%)
	B and/or L	0	13 (57%)	4 (17%)	6 (26%)	23 (100%)
	Multiple (O/I/M/D/B/L)	4 (10%)	13 (33%)	5 (13%)	17 (44%)	39 (100%)

Counts are the number of restorations, not the number of restorative materials. AAE: abrasion, abfraction, or erosion lesions; Others: developmental defects or hypoplasia, endodontically-treated teeth, or other unspecified defects or reasons. RBC: directly placed resin-based composite; GI/RMGI: glass-ionomer or resin-modified glass-ionomer; Other materials: indirectly placed resin-based composite, ceramic or porcelain, cast gold or other metallic-based material, combined metal-ceramic material, and temporary restorative material; O: occlusal; M: mesial; D: distal; B: buccal/facial; L: lingual/palatal; and I: incisal tooth surfaces.