

SupplementalTable 1. Distribution of eligible practitioners and association with participation

<u>Practitioner/practice characteristics</u>	N*	Overall %	Participated n	%
<u>Gender</u>				
Female	398	23.4	339	85%
Male	1,304	76.6	1,142	88%
				<i>p</i> =.2
<u>Race-ethnicity</u>				
White	1,335	79.0	1,170	88%
Black	87	5.2	70	80%
Asian	164	9.7	145	88%
Other	12	0.7	9	75%
Hispanic	91	5.4	78	86%
<i>Other: Multi-6, Amer Ind-5, Hawaiiin-1</i>				<i>p</i> =.2
<u>Age (years)</u>				
< 35	189	11.1	160	85%
35 - 44	371	21.8	332	89%
45 - 54	356	20.9	310	87%
55 - 64	597	35.1	525	88%
65 and older	189	11.1	157	83%
				<i>p</i> =.2
<u>Years since graduation</u>				
< 10	322	18.8	278	86%
10-19	337	19.7	298	88%
20-29	389	22.8	341	88%
30+	662	38.7	570	86%
				<i>p</i> =.7
<u>Any additional training</u>				
No	1,019	59.4	874	86%
Yes	697	40.6	616	88%
				<i>p</i> =.12
<u>Membership in any dental organizations</u>				
No	230	13.4	186	81%
Yes	1,486	86.6	1,304	88%
				<b><i>p</i>=.004</b>
<b>PRACTICE</b>				
<u>Practice type</u>				
Owner of private practice	1,255	73.5	1,097	87%
Associate of small group private practice	216	12.6	175	81%
Member large group practice (HP/PDA)	106	6.2	101	95%
Public, community, publicly-funded	71	4.2	63	89%
Federal government, academic, other managed care	59	3.5	49	83%
				<b><i>p</i>=.006</b>
<u>More than one practice location</u>				
No	1,447	84.5	1,257	87%
Yes	265	15.5	232	88%
				<i>p</i> =.8

Supplemental Table 1 - continued

<u>Practitioner/practice characteristics</u>	N*	Overall %	Participated n	%
<u>Endodontist in same location</u>				
No	1,660	96.7	1,444	87%
Yes	56	3.3	46	82%
			<i>p=.3</i>	
<u>Type of locale practice in</u>				
Urban - inner city	187	11.0	159	85%
Urban - not inner city	454	26.7	405	89%
Suburban	768	45.1	667	87%
Rural	294	17.3	256	87%
			<i>p=.5</i>	
<b><u>PATIENT POPULATION</u></b>				
<u>Percent patients with private insurance</u>				
< 40%	247	14.8	205	83%
40-79%	999	59.7	876	88%
80%+	427	25.5	378	89%
			<i>p=.09</i>	
<u>Percent patients come in regularly</u>				
< 50%	314	18.7	269	86%
50-79%	1,003	59.8	875	87%
80%+	360	21.5	320	89%
			<i>p=.5</i>	
<u>Region</u>				
Western	186	10.8	173	93%
Midwest	166	9.7	139	84%
Southwest	309	18.0	256	83%
South central	402	23.4	356	89%
South atlantic	288	16.8	252	88%
Northeast	365	21.3	315	86%
			<b><i>p=.02</i></b>	

\*Column not summing to 1716 due to missing data

**Supplemental Table 2. Distribution of practitioners according to type of tooth perform root canal therapy (RCT) on, and frequency perform and refer**

Tooth type			Performs RCT on molars				p
	N	%	yes		no		
Anterior	1485	99.7	1000	99.6	485	99.8	.5
Premolar	1432	96.1	999	99.5	433	89.1	<.001
Molar	1004	67.4	1004	100			
Gingival	1043	70.0	800	79.7	243	50.0	<.001

Only anterior	53	3.4
All 3 types	995	66.8

Number of RCT performed per month

Mean (SD)	10.6	(10.1)	13.4	(10.8)	4.8	(4.5)	<.001
Median [IQR]	8	[4-13]	10	[6-17]	4	[2-6]	<.001
1-5	535	35.9	183	18.2	352	72.4	
6-10	438	29.4	335	33.4	103	21.2	
> 10	517	34.7	486	48.4	31	6.4	<.001

Number of RCT referred per month

Mean (SD)	6.4	(9.4)	4.5	(5.9)	10.3	(13.3)	<.001
Median [IQR]	4	[2-8]	3	[1-6]	7	[4-12]	<.001

Performs >10 RCT a month

	yes		no		p
	N	%	N	%	
Anterior	517	100	968	99.5	0.1
Premolar	517	100	915	94.0	<.001
Molar	486	94.0	518	53.2	<.001
Gingival	445	86.1	598	61.5	<.001

**Supplemental Table 3. Type and frequency of isolation method used during root canal therapy (RCT) overall and according to tooth type among practitioners who never use rubber dams**

	<b>All who did not use rubber dams</b>							
			Anterior (N=222)		Premolar (N= 209)		Molar (N= 147)	
	n	%	n	%	n	%	n	%
<u>Cotton/gauze</u>								
none	36	16%	40	18%	37	18%	34	23%
1-49%	10	5%	7	3%	9	4%	11	7%
50-99%	22	10%	17	8%	15	7%	8	5%
100%	154	69%	158	71%	148	71%	94	64%
<u>Isolite use</u>								
none	179	81%	181	82%	171	82%	111	76%
1-99%	20	9%	17	8%	15	7%	13	9%
100%	23	10%	24	11%	23	11%	23	16%
any 'other' method use	13	6%	10	5%	11	5%	12	8%
used no isolation method	23	10%	21	9%	22	11%	17	12%

	<b>Does not perform RCT on molars</b>				<b>Performs RCT on molars</b>					
	Anterior (N=75)		Premolar (N= 62)		Anterior (N=147)		Premolar (N= 147)		Molar (N= 147)	
	n	%	n	%	n	%	n	%	n	%
<u>Cotton/gauze</u>										
none	7	9%	4	6%	33	22%	33	22%	34	23%
1-49%	1	1%	1	2%	6	4%	8	5%	11	7%
50-99%	5	7%	2	3%	12	8%	13	9%	8	5%
100%	62	83%	55	89%	96	65%	93	63%	94	64%
<u>Isolite use</u>										
none	68	91%	59	95%	113	77%	112	76%	111	76%
1-99%	4	5%	1	2%	13	9%	14	10%	13	9%
100%	3	4%	2	3%	21	14%	21	14%	23	16%
any 'other' method use	1	1%	1	2%	9	6%	10	7%	12	8%
used no isolation method	4	5%	3	5%	17	12%	19	13%	17	12%

**Supplemental Table 4. Practitioner/practice characteristics by rubber dam use, frequency perform root canal therapy (RCT) – bivariate**

	N	%	Use rubber dams 100% row%	Root canals >10/mon row%	RCT on molars row%
<b>Practitioner</b>					
<u>Gender</u>					
Male	1142	77	44	39	71
Female	339	23	55	21	56
			P<.001	P<.001	P<.001
<u>Race</u>					
White	1170	79	45	33	66
Black	70	5	34	41	69
Asian	145	10	59	40	77
Other	9	1	89	11	56
Hispanic	78	5	45	41	65
			P<.001	P=.11	P=.14
<u>Age (years)</u>					
< 35	160	11	59	21	62
35 - 44	332	22	50	37	70
45 - 54	310	21	44	31	69
55 - 64	525	35	44	39	65
65 and older	157	11	41	34	71
			P=.006	P<.001	P=.2
<u>Years in since graduation</u>					
< 10	278	19	56	29	65
10-19	298	20	48	35	71
20-29	341	23	46	34	63
30+	570	38	42	38	69
			P<.001	P=.06	P=.11
<u>Additional training</u>					
None	874	59	42	36	65
Any	616	41	54	32	71
			P<.001	P=.1	P=.01
<u>Membership in dental organizations</u>					
None	186	12	44	31	63
Any	1304	88	47	35	68
			P=.4	P=.2	P=.2

Supplemental Table 4 – continued

	N	%	Use rubber dams 100%	Root canals >10/month	RCT on molars
			row%	row%	row%
<b>Practice</b>					
<u>Practice type</u>					
Owner of private practice	1097	74	40	38	71
Associate small group private practice	175	12	54	37	64
Member large group (HP/PDA)	101	7	91	14	54
Public, community, publicly-funded	63	4	52	21	43
Federal, academic, other managed care	49	3	71	24	63
			P<.001	P<=.001	P<.001
<u>Endodontist in same location</u>					
No	1444	97	46	35	67
Yes	46	3	80	30	67
			P<.001	P=.5	P=.99
<u>Rural</u>					
No	1231	83	49	34	67
Yes	256	17	37	37	68
			P<.001	P=.4	P=.9
<u>More than one practice location</u>					
No	1257	84	47	33	67
Yes	232	16	46	41	70
			P=.8	P=.02	P=.4
<u>Region</u>					
Western	173	12	74	25	68
Midwest	139	9	68	25	69
Southwest	255	17	44	36	73
South central	356	24	31	39	65
South atlantic	252	17	46	33	58
Northeast	315	21	44	40	73
			P<.001	P=.002	P=.001

Supplemental Table 4 – continued

	N	%	Use rubber dams 100% row%	Root canals >10/mon row%	RCT on molars row%
<b>Patient population</b>					
<u>Percent patients with private insurance</u>					
< 40%	205	14	50	31	57
40-79%	876	60	41	38	72
80%+	378	26	57	29	62
			P<.001	P=.005	P<.001
<u>Percent patients come in regularly</u>					
< 50%	269	18	43	42	69
50-79%	875	60	47	34	68
80%+	320	22	49	31	66
			P=.4	P=.02	P=.8
<b>Other</b>					
<u>Frequency perform root canals</u>					
1-5	535	36	59		34
6-10	438	29	44		76
> 10	517	35	36		94
			P<.001		P<.001
<u>Perform root canals on molars</u>					
No	486	33	54	6	
Yes	1004	67	44	48	
			P<.001	P<.001	

**Supplemental Table 5. Practitioner/practice characteristics by rubber dam use stratified by frequency perform root canal therapy (RCT) and whether or not perform RCT on molars – bivariate**

	perform RCT on molars		perform >10 RCT/month	
	NO (N=486) use rubber dams 100%	YES (N=1004) use rubber dams 100%	NO (N= 972) use rubber dams 100%	YES (N=517) use rubber dams 100%
	row%	row%	row%	row%
<b>Practitioner</b>				
<u>Gender</u>				
Male	49	42	50	34
Female	62	50	58	47
	P=.007	P=.04	P=.04	P=.03
<u>Race</u>				
White	51	42	50	36
Black	36	33	41	24
Asian	79	52	64	50
Other	100	80	100	0
Hispanic	52	41	56	9
	P=.003	P=.07	P=.003	P=.08
<u>Age (years)</u>				
< 35	75	48	63	44
35 - 44	59	46	56	40
45 - 54	43	45	47	37
55 - 64	49	42	51	34
65 and older	51	38	48	28
	P=.001	P=.4	P=.05	P=.4
<u>Years in since graduation</u>				
< 10	70	49	63	41
10-19	55	45	51	42
20-29	50	44	52	36
30+	46	40	48	31
	P=.001	P=.2	P=.01	P=.2
<u>Additional training</u>				
None	51	37	48	31
Any	58	52	58	45
	P=.14	P<.001	P=.004	P<.001
<u>Membership in dental organizations</u>				
None	46	43	47	39
Any	55	44	53	36
	P=.2	P=.7	P=.15	P=.7



Supplemental Table 5 – continued

	perform RCT on molars		perform >10 RCT/month	
	NO (N=486) use rubber dams 100%	YES (N=1004) use rubber dams 100%	NO (N= 972) use rubber dams 100%	YES (N=517) use rubber dams 100%
	row%	row%	row%	row%
<b>Practice</b>				
<u>Practice type</u>				
Owner of private practice	44	38	45	31
Associate small group private practice	62	49	57	48
Member large group (HP/PDA)	96	87	92	86
Public, community, publicly-funded	58	44	54	46
Federal, academic, other managed care	67	74	73	67
	P<.001	P<.001	P<.001	P<.001
<u>Endodontist in same location</u>				
No	53	42	51	36
Yes	80	81	91	57
	P=.04	P=.001	P<.001	P=.1
<u>Rural</u>				
No	54	46	54	38
Yes	53	29	43	26
	P=.9	P.001	P=.01	P=.03
<u>More than one practice location</u>				
No	54	43	53	35
Yes	51	44	50	41
	P=.8	P=.9	P=.6	P=.3
<u>Region</u>				
Western	82	70	77	66
Midwest	81	61	75	46
Southwest	47	42	44	42
South central	36	28	36	23
South atlantic	56	39	52	34
Northeast	49	42	50	34
	P<.001	P<.001	P<.001	P<.001

Supplemental Table 5 – continued

	perform RCT on molars		perform >10 RCT/month	
	NO (N=486) use rubber dams 100%	YES (N=1004) use rubber dams 100%	NO (N= 972) use rubber dams 100%	YES (N=517) use rubber dams 100%
	row%	row%	row%	row%
<b>Patient population</b>				
<u>Percent patients with private insurance</u>				
< 40%	58	44	54	40
40-79%	47	39	46	34
80%+	61	55	63	42
	P=.02	P<.001	P<.001	P=.2
<u>Percent patients come in regularly</u>				
< 50%	51	40	48	38
50-79%	54	43	52	36
80%+	53	47	56	34
	P=.9	P=.3	P=.3	P=.8
<b>Other</b>				
<u>Frequency perform root canals</u>				
1-5	57	62		
6-10	48	43		
> 10	26	37		
	P=.002	P<.001		
<u>Perform root canals on molars</u>				
No			55	26
Yes			50	37
			P=.08	P=.2

**Supplemental Table 6. Crude and adjusted associations with 100% use of rubber dams**

Characteristic	Bivariate			Full model		
	Odds Ratio	95% Confidence Interval	P	Odds Ratio	95% Confidence Interval	P
Male vs. Female	0.6	0.5 - 0.8	<.001	0.8	0.6 - 1.0	.07
Asian race (yes/no)	1.7	1.2 - 2.4	.002	1.4	1.0 - 2.1	.08
Age : <35 vs. 35+ years	1.7	1.2 - 2.4	.002	1.2	0.7 - 2.0	.5
< 10 Years in since graduation	1.6	1.2 - 2.1	<.001	1.2	0.8 - 1.9	.3
Any additional training	1.6	1.3 - 2.0	<.001	1.6	1.2 - 1.9	<.001
Member large group , federal, academic, or other managed care (vs. private, public/community publicly funded)	7.5	4.7 - 11.8	<.001	3.9	2.4 - 6.4	<.001
Endodontist in same location	4.9	2.3 - 10.2	<.001	2.6	1.1 - 5.7	.02
Rural	0.6	0.5 - 0.8	<.001	0.7	0.5 - 1.0	.04
Western region vs. others	3.7	2.6 - 5.3	<.001	2.6	1.8 - 3.9	<.001
Perform root canals >10/month vs. less	0.5	0.4 - 0.6	<.001	0.6	0.5 - 0.8	.001
Perform root canals on molars	0.7	0.5 - 0.8	<.001	0.8	0.6 - 1.0	.09

Characteristic	Reduced model Retained if P<0.05			Reduced model Retained if P<0.001		
	Odds Ratio	95% Confidence Interval	P	Odds Ratio	95% Confidence Interval	P
Male vs. Female	0.7	0.6 - 1.0	.03			
Asian race (yes/no)						
Age : <35 vs. 35+ years						
< 10 Years in since graduation	1.4	1.0 - 1.8	.03			
Any additional training	1.5	1.2 - 1.9	<.001	1.5	1.2 - 1.9	<.001
Member large group , federal, academic, or other managed care (vs. private, public/community publicly funded)	4.0	2.5 - 6.5	<.001	5.0	3.1 - 8.0	<.001
Endodontist in same location	2.6	1.2 - 5.8	.02			
Rural	0.7	0.5 - 1.0	.02			
Western region vs. others	2.6	1.8 - 3.9	<.001	2.5	1.7 - 5.7	<.001
Perform root canals >10/month vs. less	0.6	0.5 - 0.8	<.001	0.6	0.5 - 0.7	<.001
Perform root canals on molars						