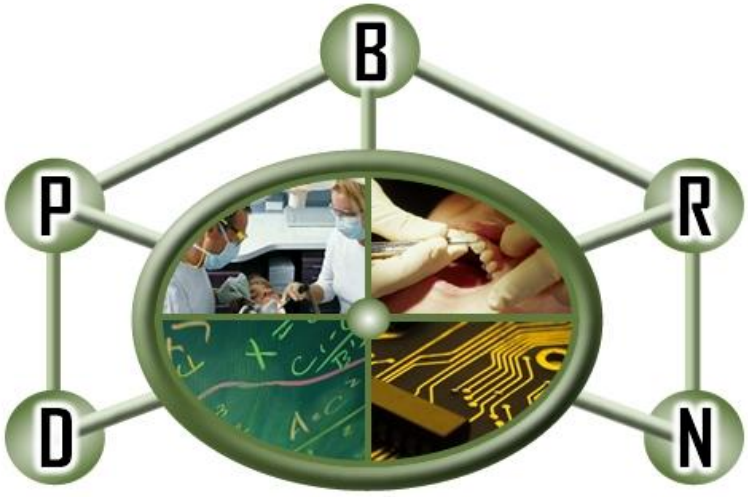

Dental Practice-Based Research Network

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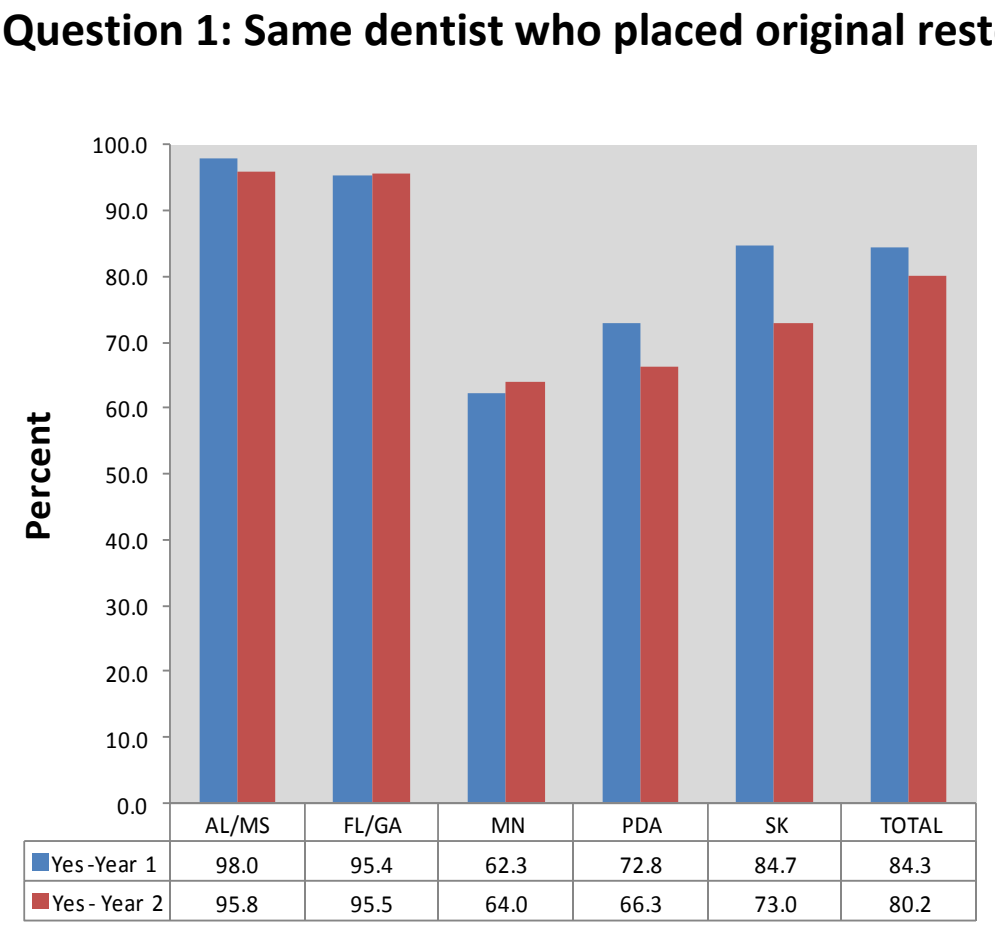
DPBRN 8: Longitudinal Study of Dental Restorations Placed in Previously Un-restored Surfaces

Date Prepared: February 24, 2012

Longitudinal Follow-Up of Restorations – Clinical Data Collection Form – Years 1, 2

1. Is the dentist who is filling out this form today the same one who placed this restoration on the original treatment date (xx/xx/20xx)?

a ☐ Yes
b ☐ No



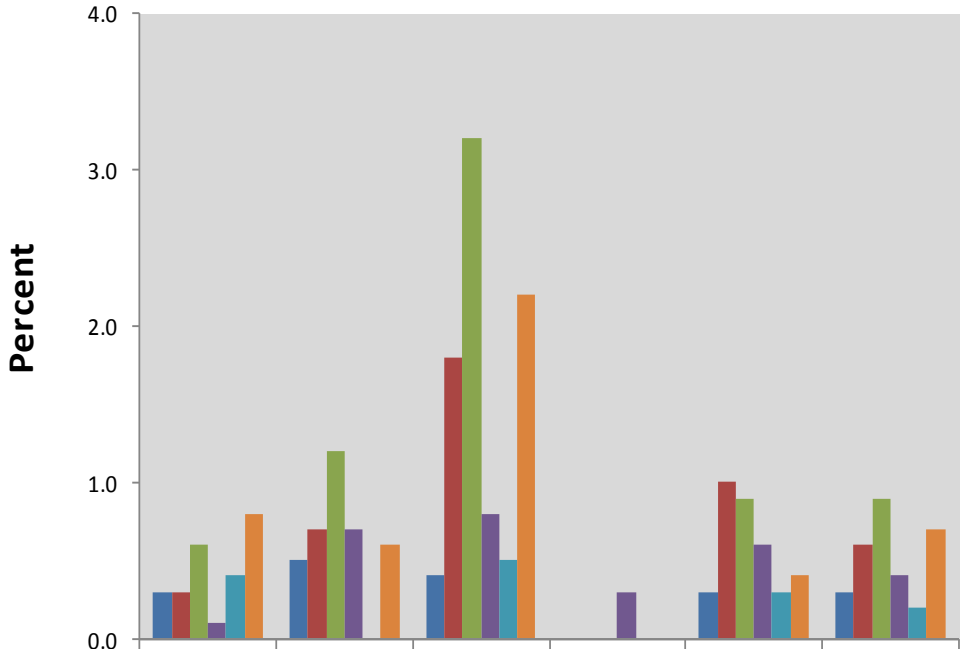
	AL/MS	FL/GA	MN	PDA	SK	TOTAL
Yes -Year 1	98.0	95.4	62.3	72.8	84.7	84.3
Yes - Year 2	95.8	95.5	64.0	66.3	73.0	80.2

- 84% of restorations at the one-year follow-up visit, and 80% at the two-year follow-up visit, were treated by the same dentist who originally placed the restoration; higher (over 95%) for AL/MS and FL/GA regions than the other regions.

2. Restoration Status: Since the last time you evaluated this restoration, this tooth has been:

a ☐ extracted
b ☐ treated with a root canal that altered this restoration
c ☐ treated for a problem with this restoration
d ☐ None of the above

Question 2: Restoration status



	AL/MS	FL/GA	MN	PDA	SK	TOTAL
Extracted Y1	0.3	0.5	0.4	0.0	0.3	0.3
Root canal Y1	0.3	0.7	1.8	0.0	1.0	0.6
Problem w/ restoration Y1	0.6	1.2	3.2	0.0	0.9	0.9
Extracted Y2	0.1	0.7	0.8	0.3	0.6	0.4
Root canal Y2	0.4	0.0	0.5	0.0	0.3	0.2
Problem w/ restoration Y2	0.8	0.6	2.2	0.0	0.4	0.7

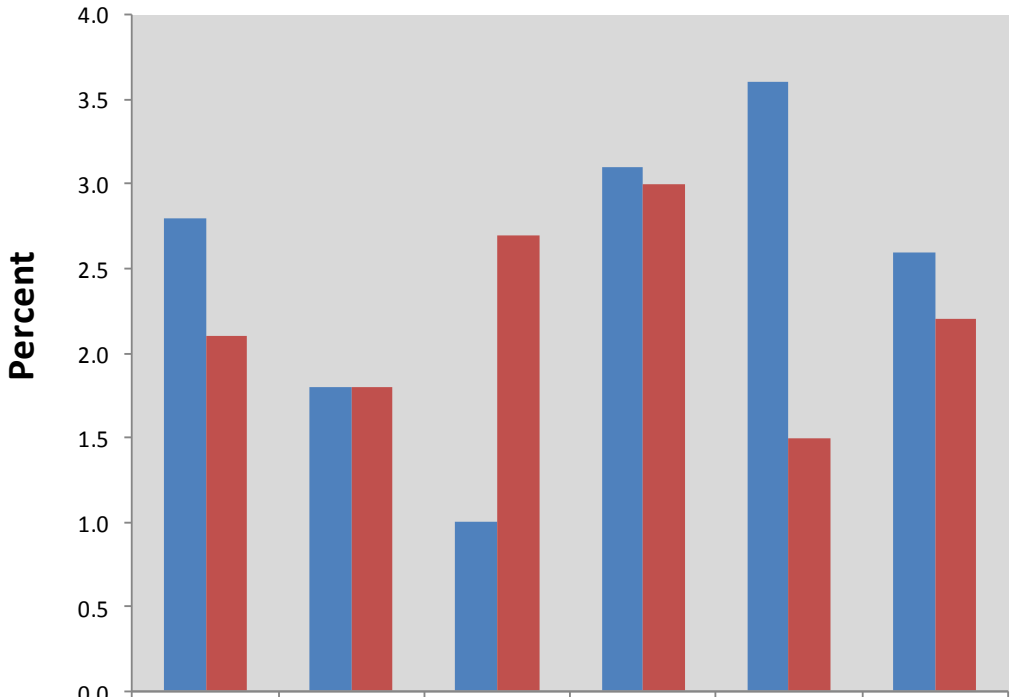
- Less than 2% of restorations had been extracted, had root canal or any treatment due to a problem with the restoration at year one and at year two.

3. Is this visit due to a problem with <u>this</u> restoration?

a ☐ Yes

b ☐ No

Question 3: Problem with restoration



	AL/MS	FL/GA	MN	PDA	SK	TOTAL
Year 1	2.8	1.8	1.0	3.1	3.6	2.6
Year 2	2.1	1.8	2.7	3.0	1.5	2.2

- At both year one and two, the follow-up visit was due to a problem with the restoration for 2% – 3% of restorations overall.

4. Restoration Rating: Rate the condition of this restoration ("acceptable" or "repair or replace")

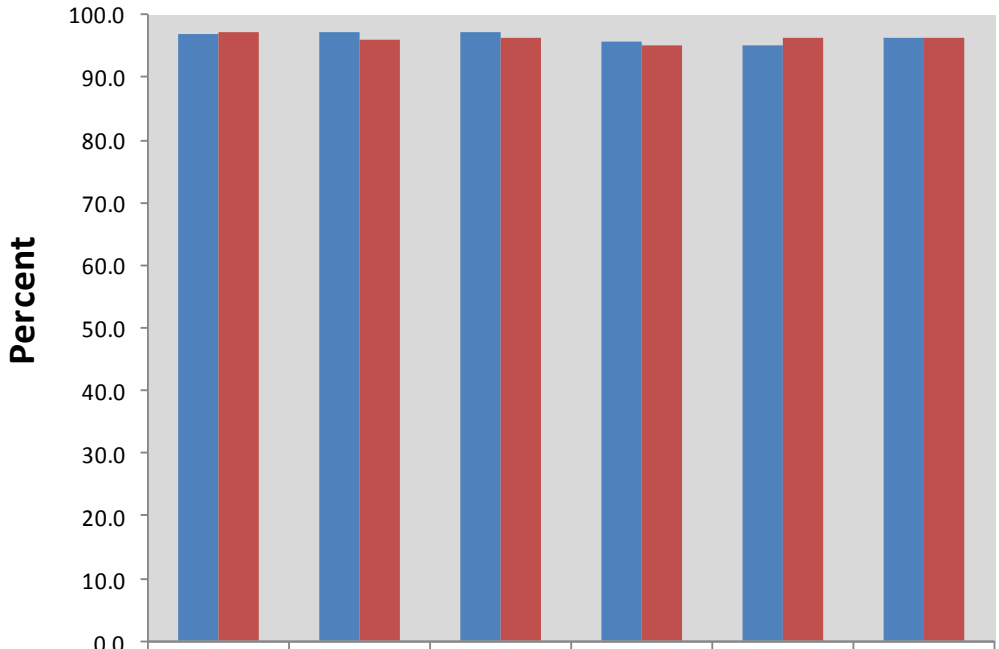
a ☐ Acceptable – No further clinical action is needed, please indicate if you adjusted the restoration.
Did you adjust or polish to improve the restoration today?

1 ☐ Yes

2 ☐ No

b ☐ Repair or Replace **–** Clinical action is needed.

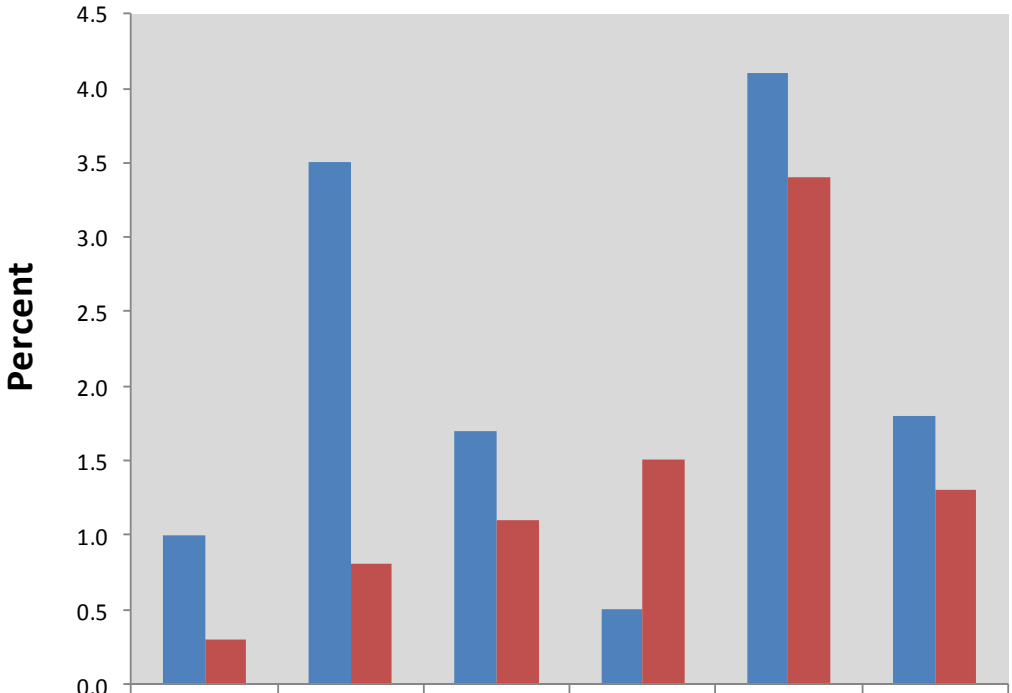
Question 4a(1): Restoration acceptable



	AL/MS	FL/GA	MN	PDA	SK	TOTAL
Year 1	96.9	97.3	97.1	95.8	95.1	96.4
Year 2	97.3	96.0	96.3	95.2	96.3	96.3

- The restoration was acceptable for 96% of patients overall at both year-one and year-two follow-ups.

Question 4a(2): Restoration adjusted or polished



	AL/MS	FL/GA	MN	PDA	SK	TOTAL
Year 1	1.0	3.5	1.7	0.5	4.1	1.8
Year 2	0.3	0.8	1.1	1.5	3.4	1.3

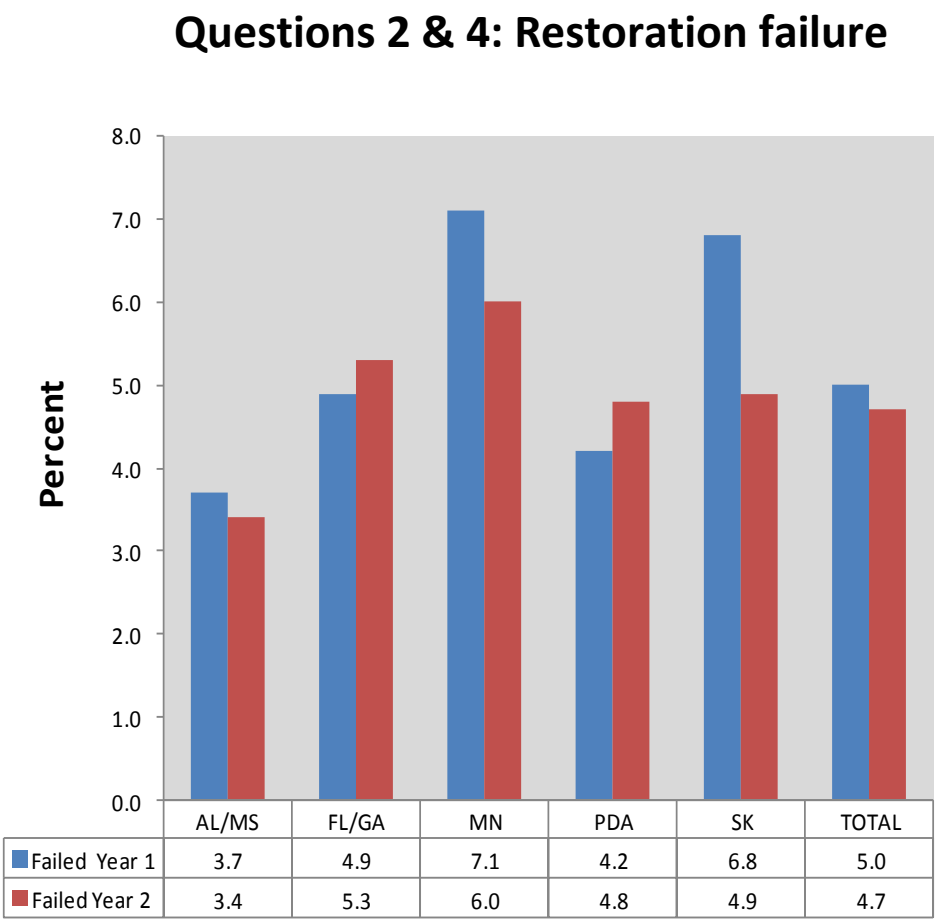
- Among acceptable restorations between1% – 2% were adjusted or polished in each follow-up year.

-

The restoration was considered “failed” at the visit if either of the following statements were true:

If in question #2, a, b, or c, tooth was extracted, had root canal therapy or other treatment

If in question #4, restoration is not acceptable



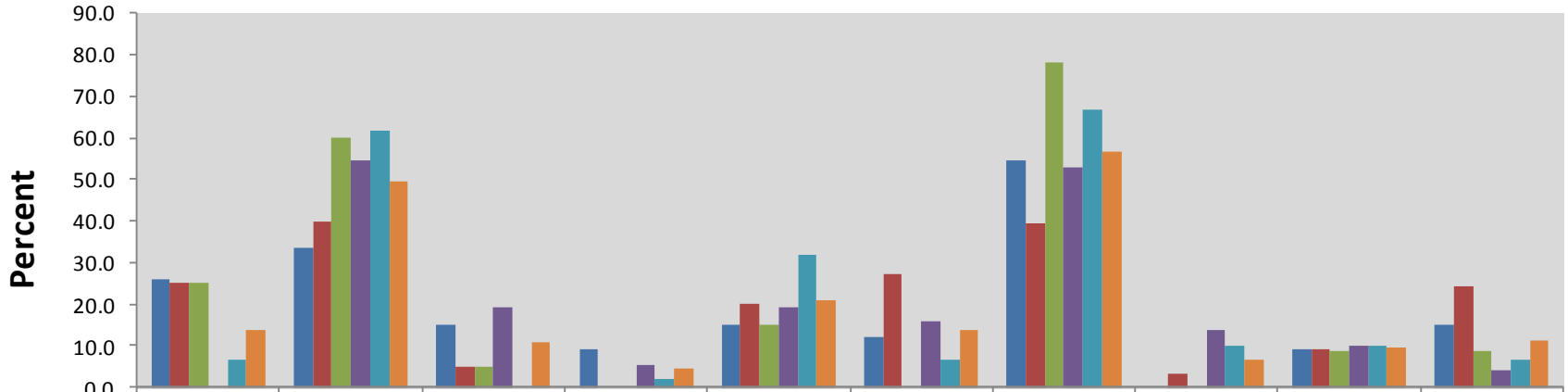
	AL/MS	FL/GA	MN	PDA	SK	TOTAL
Failed Year 1	3.7	4.9	7.1	4.2	6.8	5.0
Failed Year 2	3.4	5.3	6.0	4.8	4.9	4.7

- Overall, about 5% of restorations failed at year one and at year two, with MN having the highest rate and AL/MS having the lowest rate for both follow-up periods.

5. What is your treatment plan for this restoration? (**Mark all that apply**)

a ☐ Repair a defective part of the restoration
b ☐ Replace the entire restoration
c ☐ Tooth requires endodontics
d ☐ Tooth will be extracted
e ☐ Other treatment (explain)

Question 5: Treatment plan for restoration



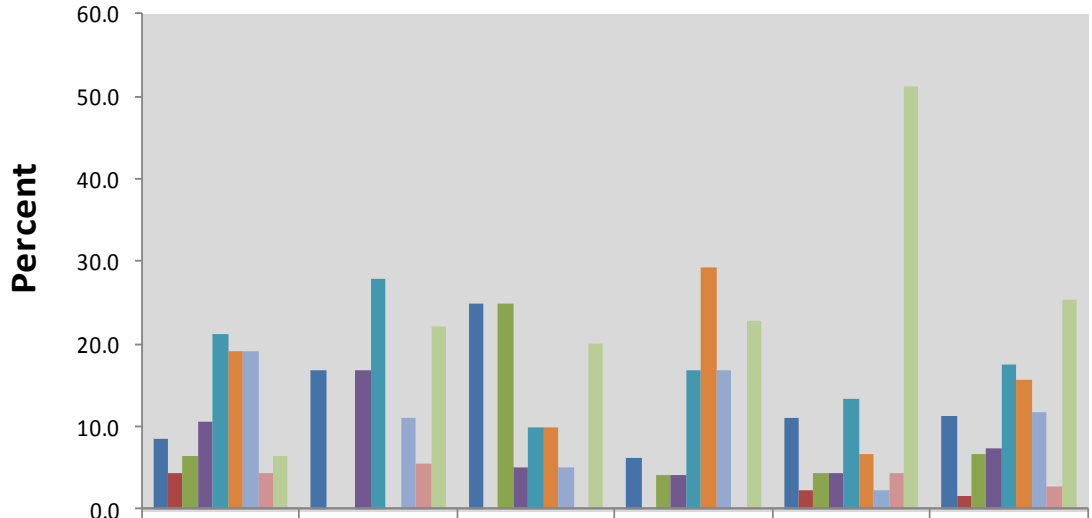
	Repair defective part	Replace restoration	Endodontics	Extraction	Other treatment	Repair defective part	Replace restoration	Endodontics	Extraction	Other treatment
	Year 1					**Year 2**				
AL/MS	25.9	33.3	14.8	9.3	14.8	12.1	54.6	0.0	9.1	15.2
FL/GA	25.0	40.0	5.0	0.0	20.0	27.3	39.4	3.0	9.1	24.2
MN	25.0	60.0	5.0	0.0	15.0	0.0	78.3	0.0	8.7	8.7
PDA	0.0	54.4	19.3	5.3	19.3	15.7	52.9	13.7	9.8	3.9
SK	6.4	61.7	0.0	2.1	31.9	6.7	66.7	10.0	10.0	6.7
TOTAL	13.6	49.5	10.6	4.6	20.7	13.5	56.5	6.5	9.4	11.2

- At both follow-up, the most common treatment plan for the restoration was to replace it; about 50% in year one and 56% in year two.

6. Please indicate the **main** reason for repair or replacement of the restoration (**Choose only one**).

a☐ Secondary/recurrent caries
b☐ Entire restoration is discolored
c☐ Restoration margins are discolored
d☐ Restoration margins are degraded or ditched
e☐ Bulk fracture of restoration
f ☐ Restoration is missing
g☐ Tooth is fractured
h☐ Pain or sensitivity
I ☐ Patient request (specify)
J ☐ Other reason (specify)

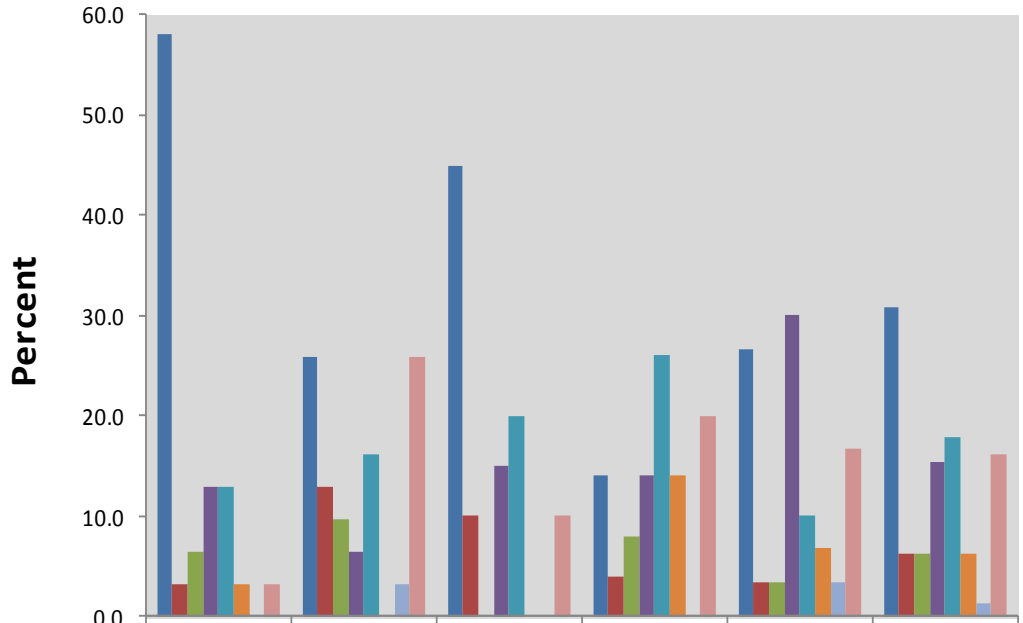
Question 6(a): Main reason for repair/restoration – Year 1



	AL/MS	FL/GA	MN	PDA	SK	TOTAL
Secondary caries	8.5	16.7	25.0	6.3	11.1	11.2
Margins discolored	4.3	0.0	0.0	0.0	2.2	1.7
Margins degraded	6.4	0.0	25.0	4.2	4.4	6.7
Bulk fx of restoration	10.6	16.7	5.0	4.2	4.4	7.3
Restoration missing	21.3	27.8	10.0	16.7	13.3	17.4
Tooth fractured	19.2	0.0	10.0	29.2	6.7	15.7
Pain/sensitivity	19.2	11.1	5.0	16.7	2.2	11.8
Patient request	4.3	5.6	0.0	0.0	4.4	2.8
Other reason	6.4	22.2	20.0	22.9	51.1	25.3

- For year one, the category with the most responses for the main reason to do repair or replacement was “other reason” at 25% overall.
    - Of specific reasons chosen, the most common was the “restoration is missing” at 17%. Overall, 11% of unacceptable restorations were due to secondary or recurrent caries.

Question 6(b): Main reason for repair/restoration – Year 2



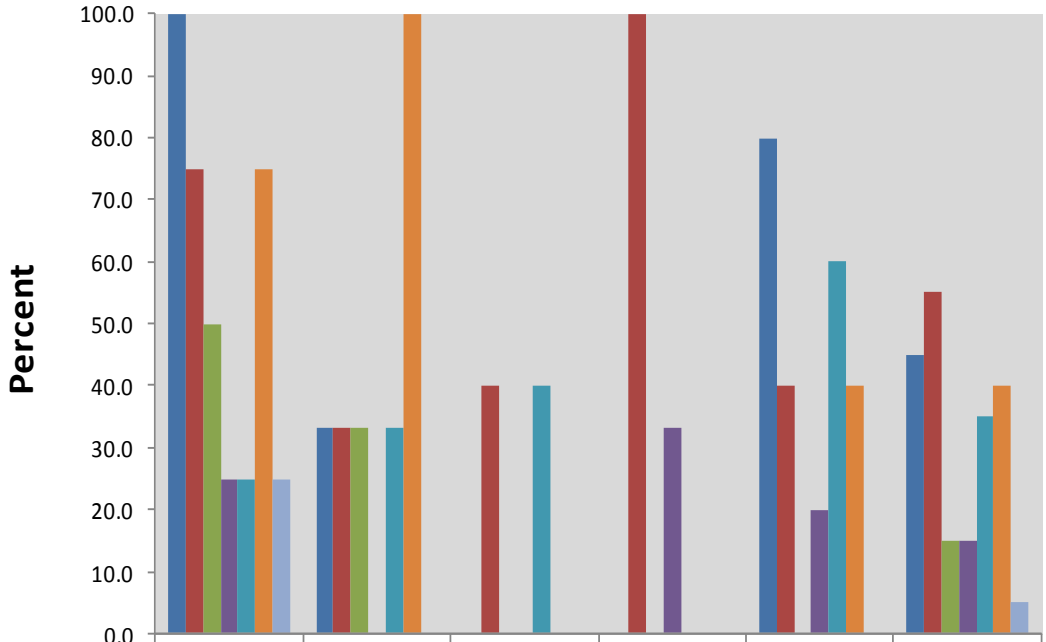
	AL/MS	FL/GA	MN	PDA	SK	TOTAL
Secondary caries	58.1	25.8	45.0	14.0	26.7	30.9
Margins degraded	3.2	12.9	10.0	4.0	3.3	6.2
Bulk fx of restoration	6.5	9.7	0.0	8.0	3.3	6.2
Restoration missing	12.9	6.5	15.0	14.0	30.0	15.4
Tooth fractured	12.9	16.1	20.0	26.0	10.0	17.9
Pain/sensitivity	3.2	0.0	0.0	14.0	6.7	6.2
Patient request	0.0	3.2	0.0	0.0	3.3	1.2
Other reason	3.2	25.8	10.0	20.0	16.7	16.1

- The main reason for repair or replacing the restoration in year two was secondary or recurrent caries at approximately 31% overall, with AL/MS being considerably higher at 58%.

7. What technique or observation led you to the diagnosis of secondary caries?
(**Mark all that apply**)

a ☐ Probing with a dental explorer
b ☐ Radiographs
c ☐ Intuition or clinical experience based on clinical appearance
d ☐ Discolored margin of the restoration
e ☐ Frank or definite caries cavitation
f ☐ Presence of soft, discolored dentin or enamel
g ☐ An exploratory preparation to inspect the lesion

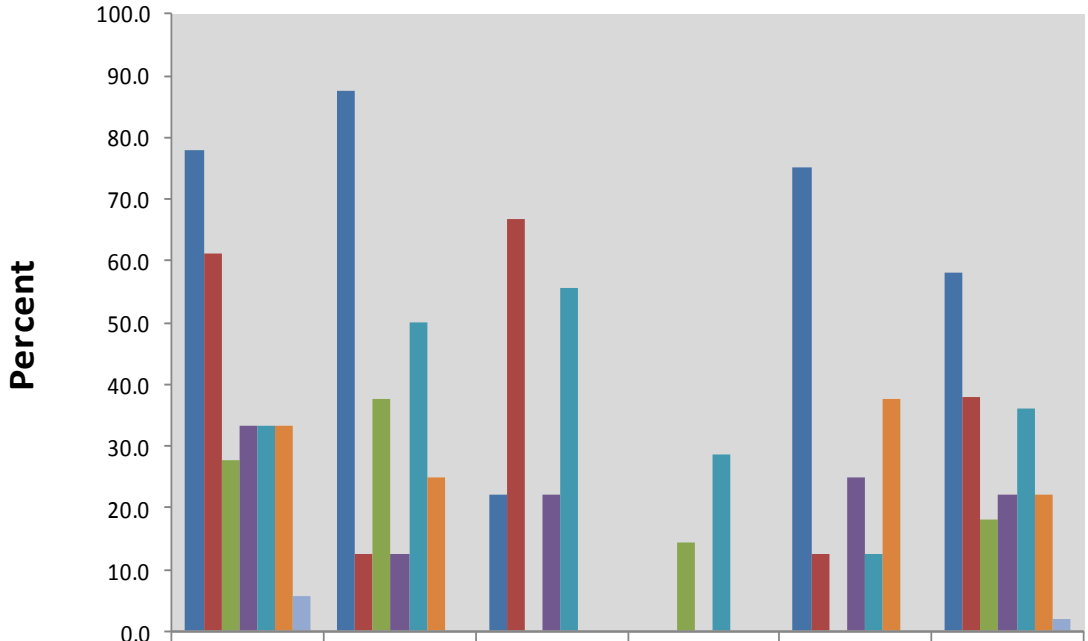
Question 7: Technique used to diagnose secondary caries – Year 1



	AL/MS	FL/GA	MN	PDA	SK	TOTAL
Dental explorer	100.0	33.3	0.0	0.0	80.0	45.0
Radiographs	75.0	33.3	40.0	100.0	40.0	55.0
Intuition	50.0	33.3	0.0	0.0	0.0	15.0
Discolored margin	25.0	0.0	0.0	33.3	20.0	15.0
Caries cavitation	25.0	33.3	40.0	0.0	60.0	35.0
Discolored dentin	75.0	100.0	0.0	0.0	40.0	40.0
Inspect lesion	25.0	0.0	0.0	0.0	0.0	5.0

- For year one, the technique used most often to diagnose a secondary caries was radiographs at 55% overall, ranging from 33% (FL/GA) to 100% (PDA).

Question 7: Technique used to diagnose secondary caries – Year 2



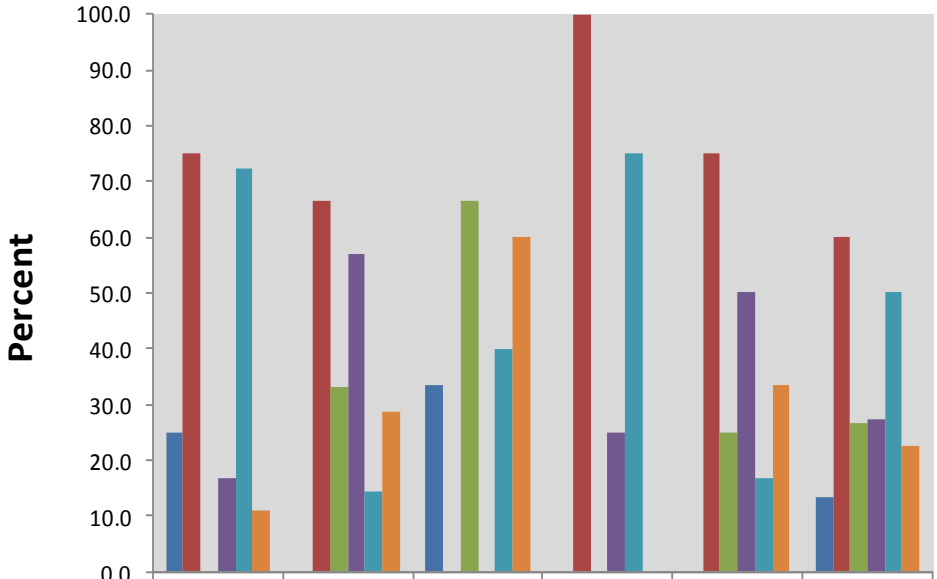
	AL/MS	FL/GA	MN	PDA	SK	TOTAL
Dental explorer	77.8	87.5	22.2	0.0	75.0	58.0
Radiographs	61.1	12.5	66.7	0.0	12.5	38.0
Intuition	27.8	37.5	0.0	14.3	0.0	18.0
Discolored margin	33.3	12.5	22.2	0.0	25.0	22.0
Caries cavitation	33.3	50.0	55.6	28.6	12.5	36.0
Discolored dentin	33.3	25.0	0.0	0.0	37.5	22.0
Inspect lesion	5.6	0.0	0.0	0.0	0.0	2.0

- Probing with the dental explorer was the most common procedure used for year two at 58% overall, ranging from 0% (PDA) to about 88% (FL/GA).

8. Where was the clinically diagnosed secondary caries relative to the existing restoration?

a ☐ Gingival to the restoration with carious margin in the enamel
b ☐ Gingival to the restoration with the carious margin in dentin or cementum
c ☐ Other location

Question 8: Location of secondary caries



	AL/MS	FL/GA	MN	PDA	SK	TOTAL
Gingival/margin in enamel Y1	25.0	0.0	33.3	0.0	0.0	13.3
Gingival/margin in dentin Y1	75.0	66.7	0.0	100.0	75.0	60.0
Other location Y1	0.0	33.0	66.7	0.0	25.0	26.7
Gingival/margin in enamel Y2	16.7	57.1	0.0	25.0	50.0	27.5
Gingival/margin in dentin Y2	72.2	14.3	40.0	75.0	16.7	50.0
Other location Y2	11.1	28.6	60.0	0.0	33.3	22.5

- Considering the location of the secondary caries related to the existing restoration, gingival to the restoration with the carious margin being in the dentin or cementum was the most common location for both year one and year two.