

**Dental Practice-Based Research Network**  
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**DPBRN 4: Reasons for placing the first restoration  
on permanent tooth surfaces**

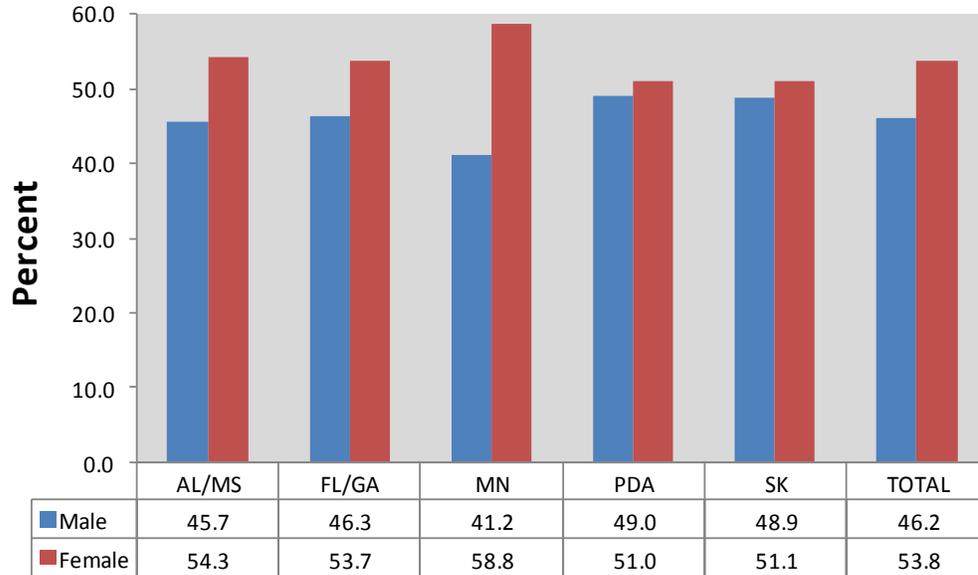
**Overall Data Summary Report (Updated)**

**Date Prepared: February 23, 2012**

1. Patient Gender

- 1  Male
- 2  Female

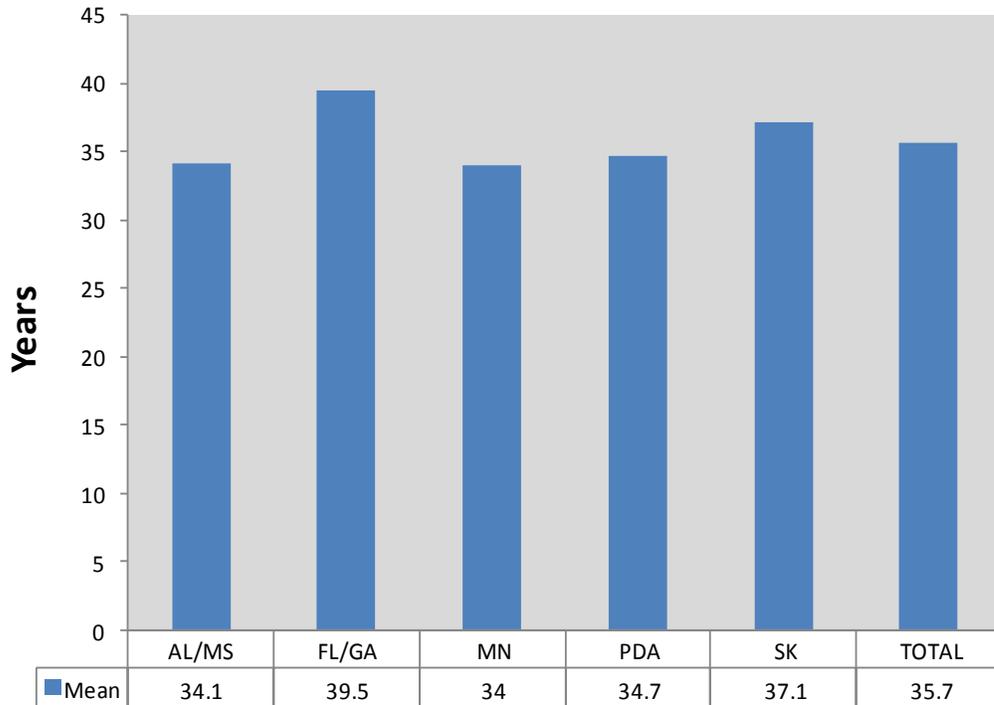
### Question 1: Gender



- Gender was fairly consistent across the regions with 54% of patients being female.

2. Patient Age in years

### Question 2: Age

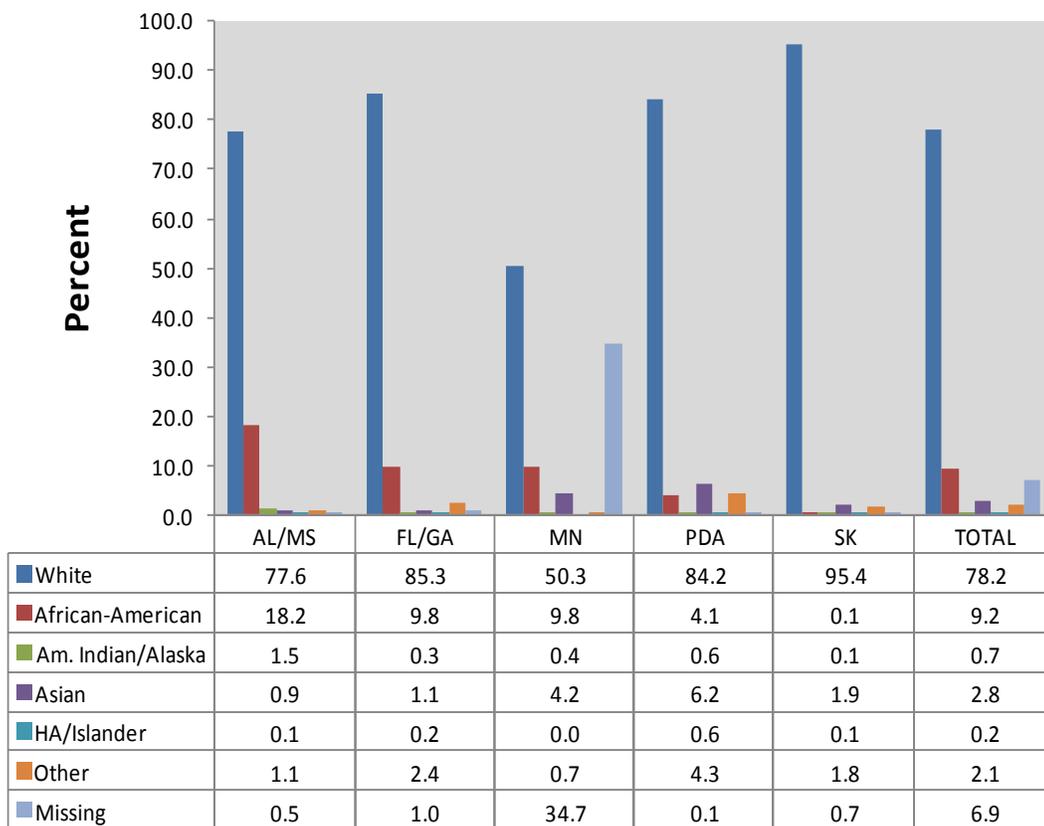


- Age was consistent across the regions with the overall average being about 36 years.
- The category with the most patients (approximately 47%) was 19 – 44 years; category with the least patients (approximately 8%) was being 65 years or older.

### 3. Patient Race

- 1  White
- 2  Black or African-American
- 3  American Indian or Alaska Native
- 4  Asian
- 5  Native Hawaiian or Other Pacific Islander
- 6  Other (please specify) \_\_\_\_\_

### Question 3: Race

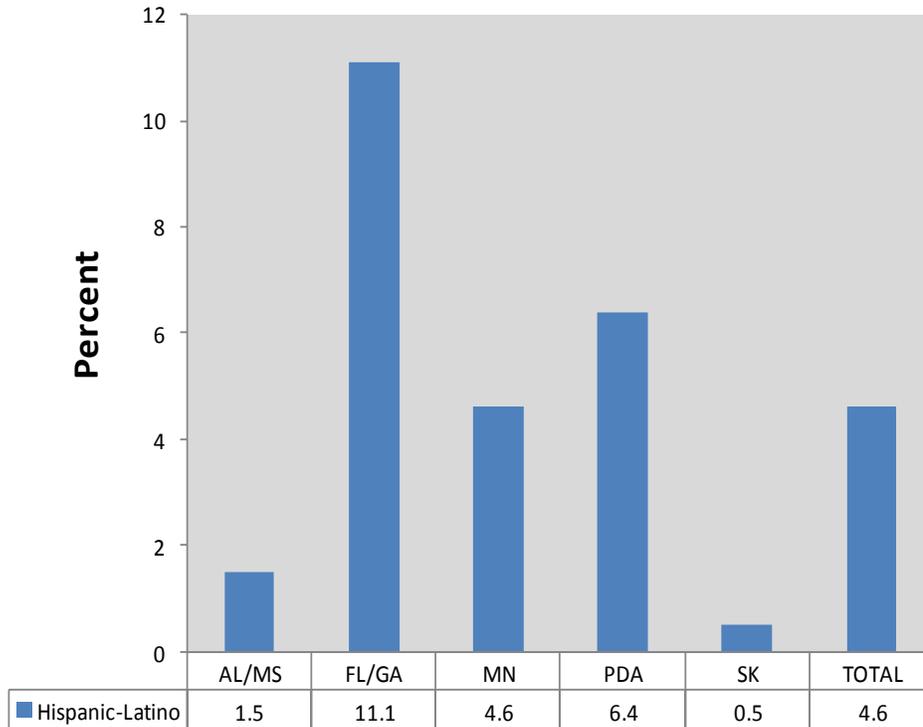


- Overall 78% of patients were White, ranging from 50% (MN) to 95% (SK).
- Race was missing in approximately 7% of patients, more so in MN at about 35%.

#### 4. Patient Ethnicity

- 1  Hispanic or Latino
- 2  Not Hispanic or Latino

### Question 4: Ethnicity

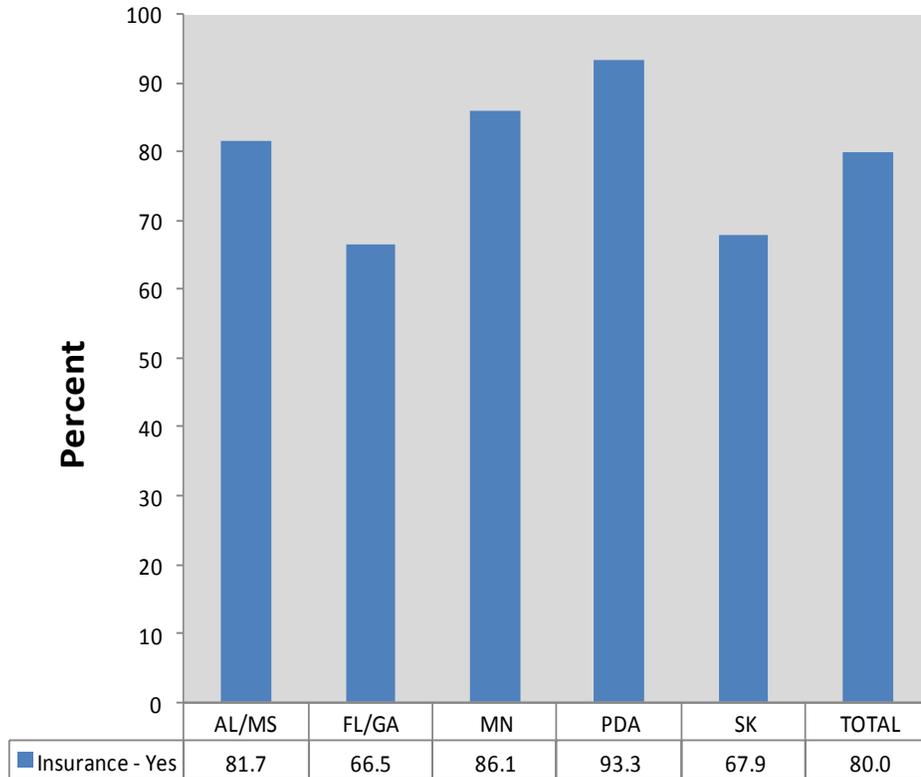


- Overall, about 5% of patients were of Hispanic/Latino ethnicity; higher in FL/GA at 11%.

5. Does the patient have any dental insurance or third party coverage?

- 1  Yes
- 2  No

### Question 5: Insurance

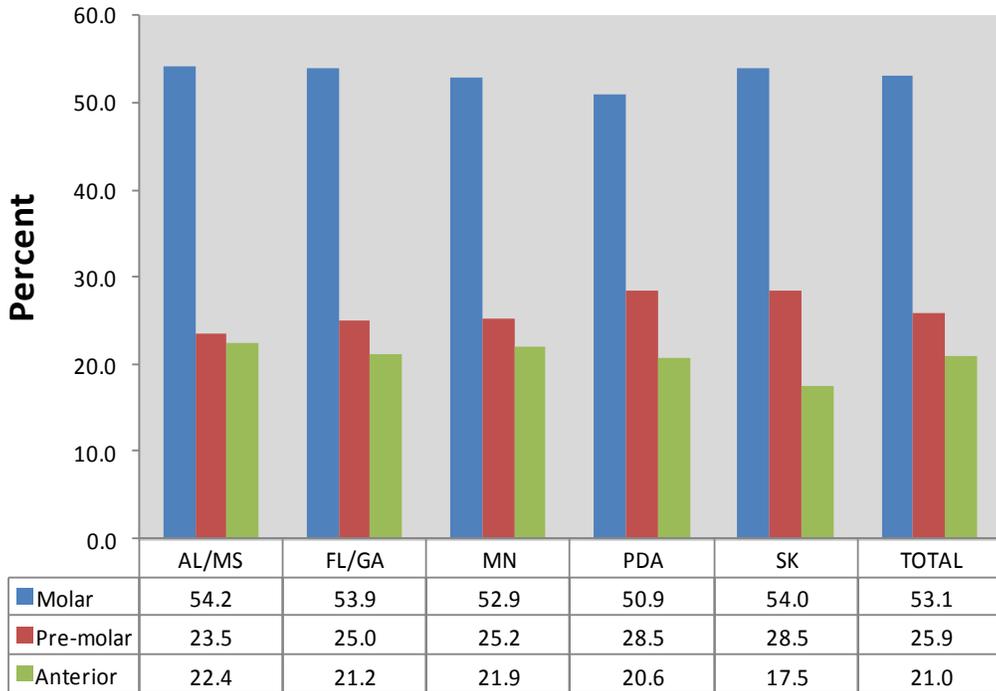


- Overall, 80% of patients had insurance, ranging from about 67% (FL) to 93% (PDA).

6. On which tooth and surface(s) did you diagnose primary caries or a non-carious defect?

TOOTH NUMBER

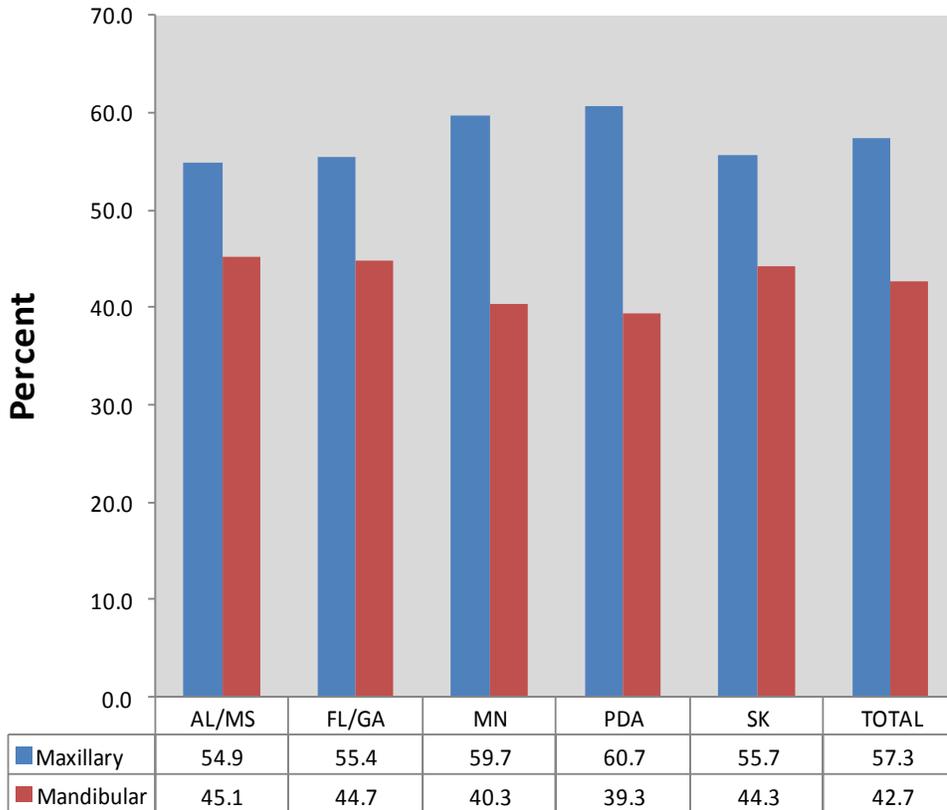
### Question 6(a-1): Tooth type



\*US tooth numbers: Anterior (6-11, 22-27), Pre-molar (4-5, 12-13, 20-21, 28-29), Molar (1-3, 14-19, 30-32), Maxillary (1-16), Mandibular (17-32)

- Overall, 53% of defects/caries were on molars, 26% on pre-molars and 21% on anterior teeth.

## Question 6(a-2): Tooth position



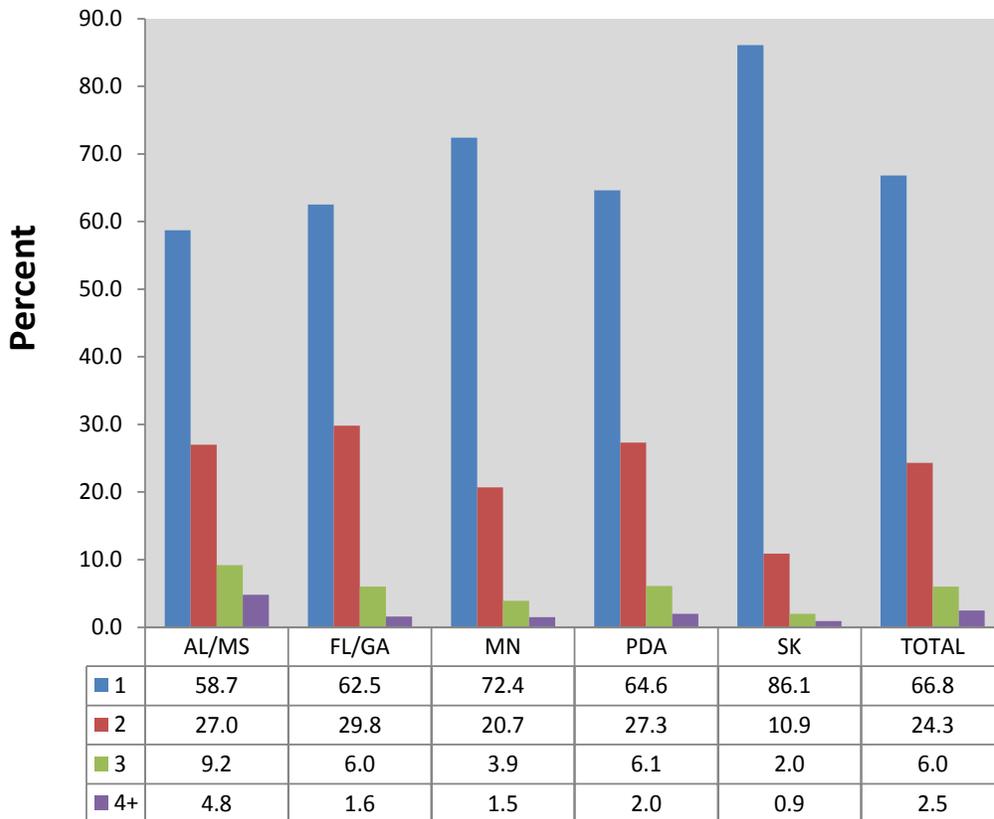
- Defects/caries involved maxillary (57%) more frequently than mandibular (about 43%) teeth.
  - Both of the above were consistent across regions.

NOTE: Table 6b is not included in the graph version of the report.

TOOTH SURFACE (MARK ALL THAT APPLY)

- 1  Occlusal
- 2  Mesial
- 3  Distal
- 4  Buccal or Facial
- 5  Lingual or Palatal
- 6  Incisal

### Question 6(c): Number of surfaces

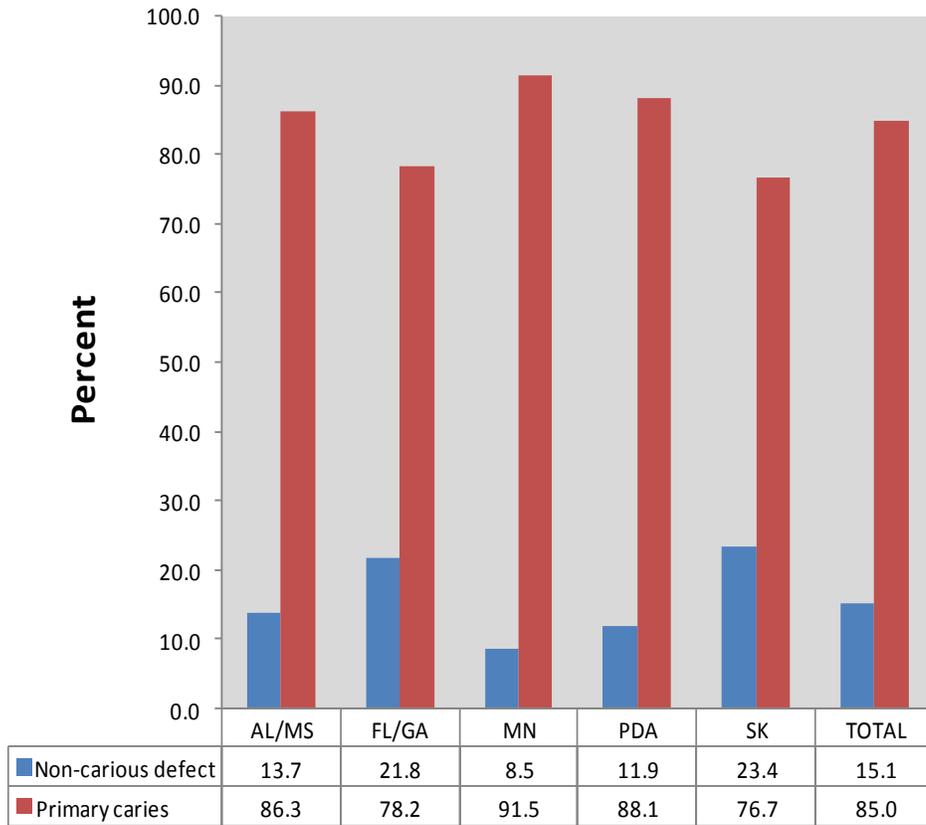


- Most defects affected only one surface, overall about 67%, ranging from about 59% (AL/MS) to 86% (SK).

7. What is the **main** reason that you placed a restoration in this tooth? (Please mark one response only.)

- 1  Restoration of a non-carious defect
- 2  Primary caries (*The first caries lesion, which is not related to a current restoration, diagnosed on any tooth surface.*)

### Question 7: Main reason for restoration

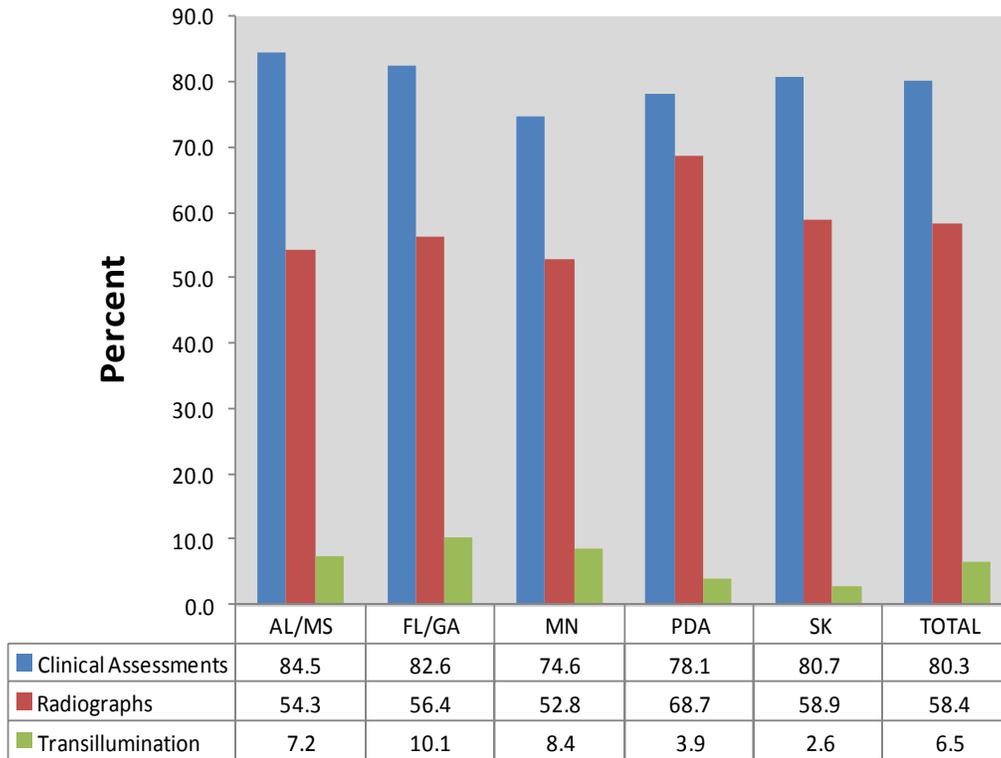


- Primary caries was the main reason for 85% of restorations, ranging from about 77% (SK) to about 92% (MN).

7a. What technique did you use to diagnose the primary caries lesion? (Please mark all that apply.)

- 1  Clinical assessments including probing
- 2  Radiographs
- 3  Transillumination or optical technique (e.g., Diagnodent®)

### Question 7a: Technique used for diagnosis

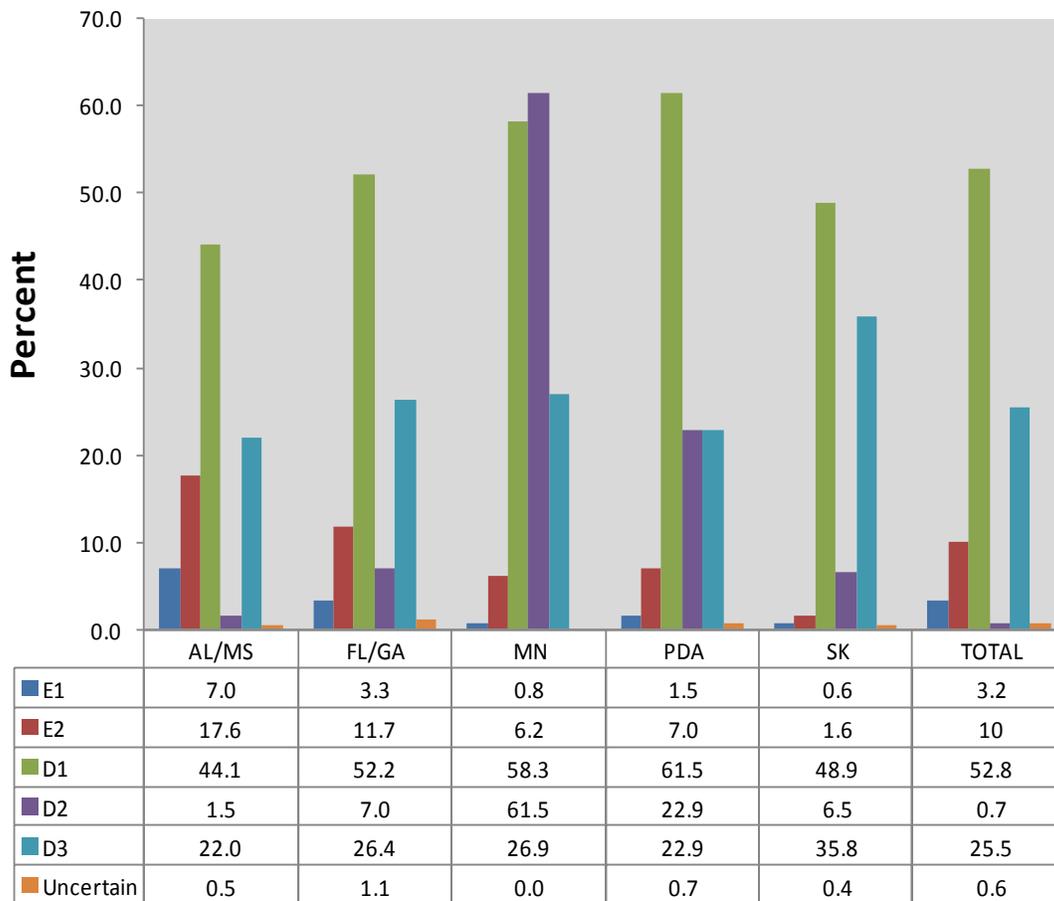


- The technique used most often to diagnose primary caries lesions was clinical assessments at 80%, with transillumination being used the least at about 7%.

7b. How deep did you estimate that the deepest part of the primary caries lesion was *preoperatively*? (Please mark one category only.)

- 1  E1 (Outer ½ of Enamel)
- 2  E2 (Inner ½ of Enamel)
- 3  D1 (Outer ⅓ of Dentin)
- 4  D2 (Middle ⅓ of Dentin)
- 5  D3 (Inner ⅓ of Dentin)
- 6  Uncertain

### Question 7b: Lesion depth preoperatively

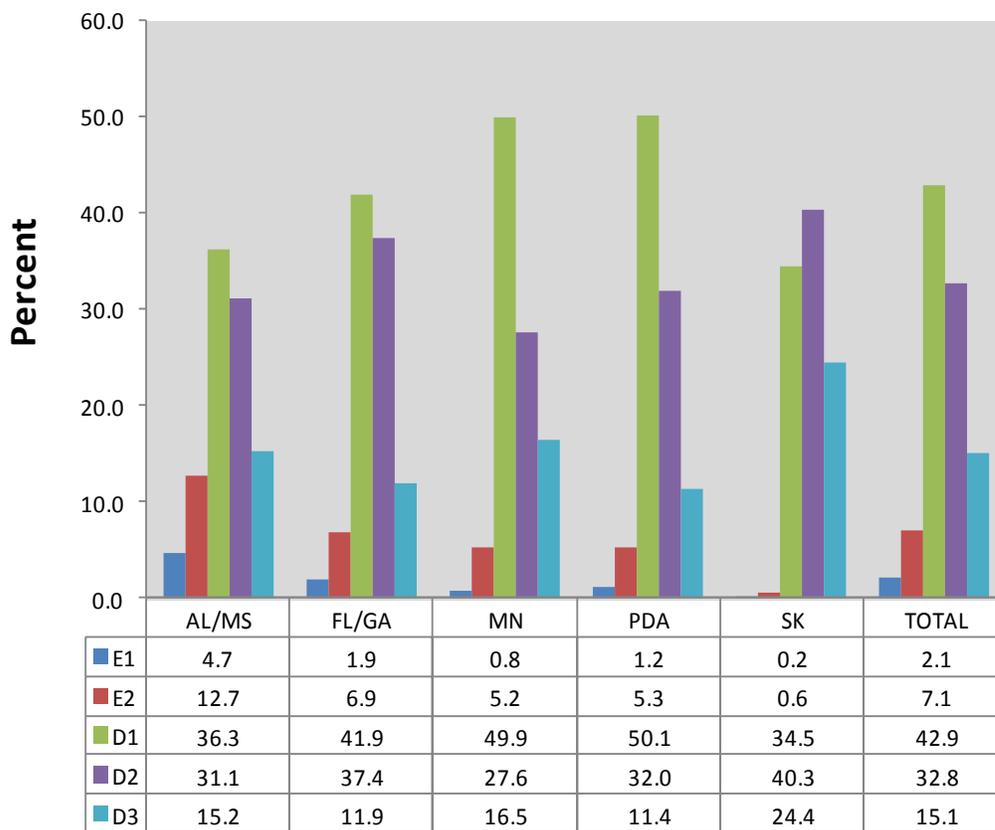


- The most common category for pre-operative depth estimation was D1 at about 53% overall, followed by D2 (26%) and E1 (10%), in general, this was consistent across regions.

7c. How deep did you estimate that the deepest part of the primary caries lesion was *postoperatively*? (Please mark one category only.)

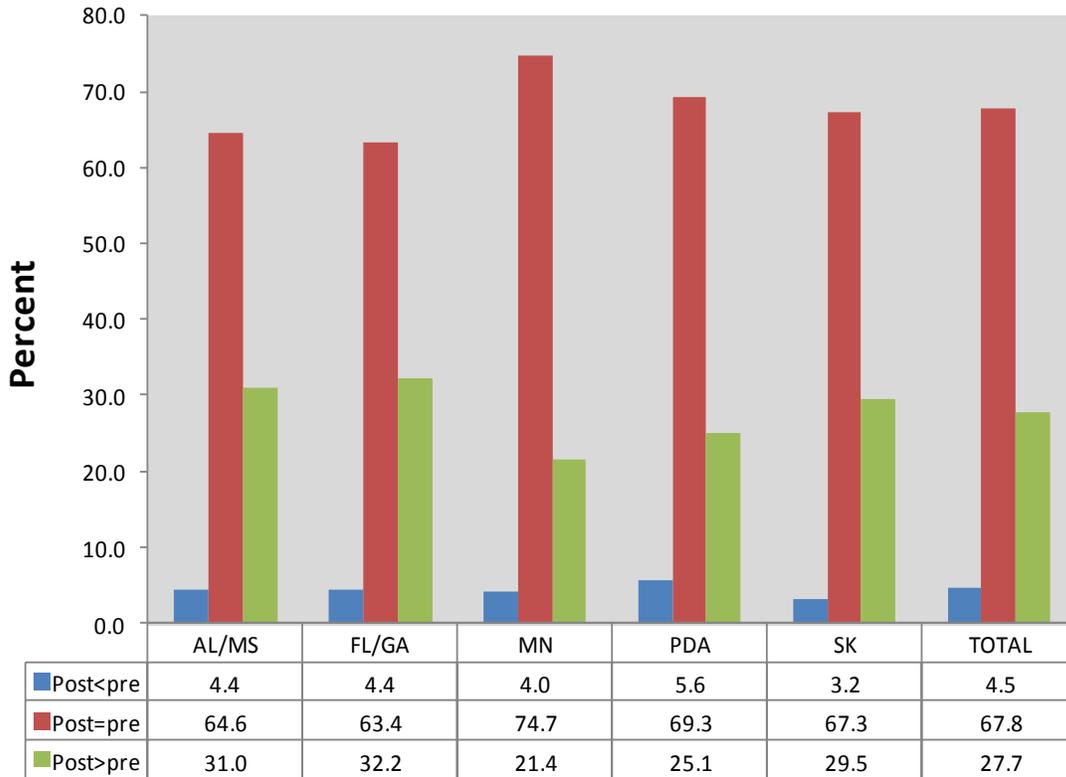
- 1  E1 (Outer ½ of Enamel)
- 2  E2 (Inner ½ of Enamel)
- 3  D1 (Outer ⅓ of Dentin)
- 4  D2 (Middle ⅓ of Dentin)
- 5  D3 (Inner ⅓ of Dentin)

### Question 7c: Lesion depth postoperatively



- In general, postoperative depth estimates were similar to preoperative estimates in that D1 was most common (43%) followed by D2 (33%). Postoperatively, D3 (15%) was third most common instead of E1. This pattern was consistent across regions except for SK, in which D2 was more common than D1.

## Question 7(b-c): Comparison of pre- and post-operative depth estimation

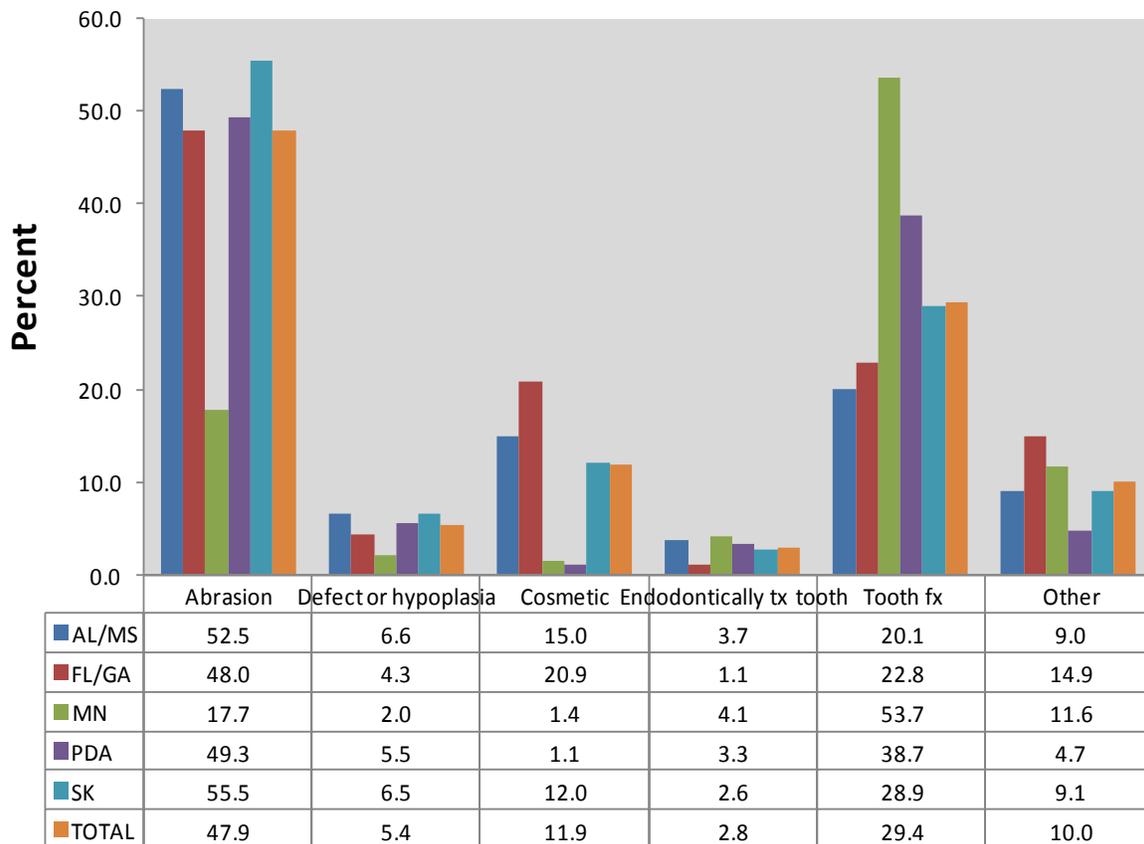


- There was an approximate 68% agreement rate when comparing estimated depths pre-operatively and post-operatively.

7d. Why did you restore the non-carious defect? (Please mark all that apply.)

- 1  Abrasion/abfraction/erosion lesion
- 2  Developmental defect or hypoplasia
- 3  For cosmetic reasons
- 4  To restore an endodontically-treated tooth
- 5  The tooth was fractured
- 6  Other \_\_\_\_\_

### Question 7d: Reason for restoration

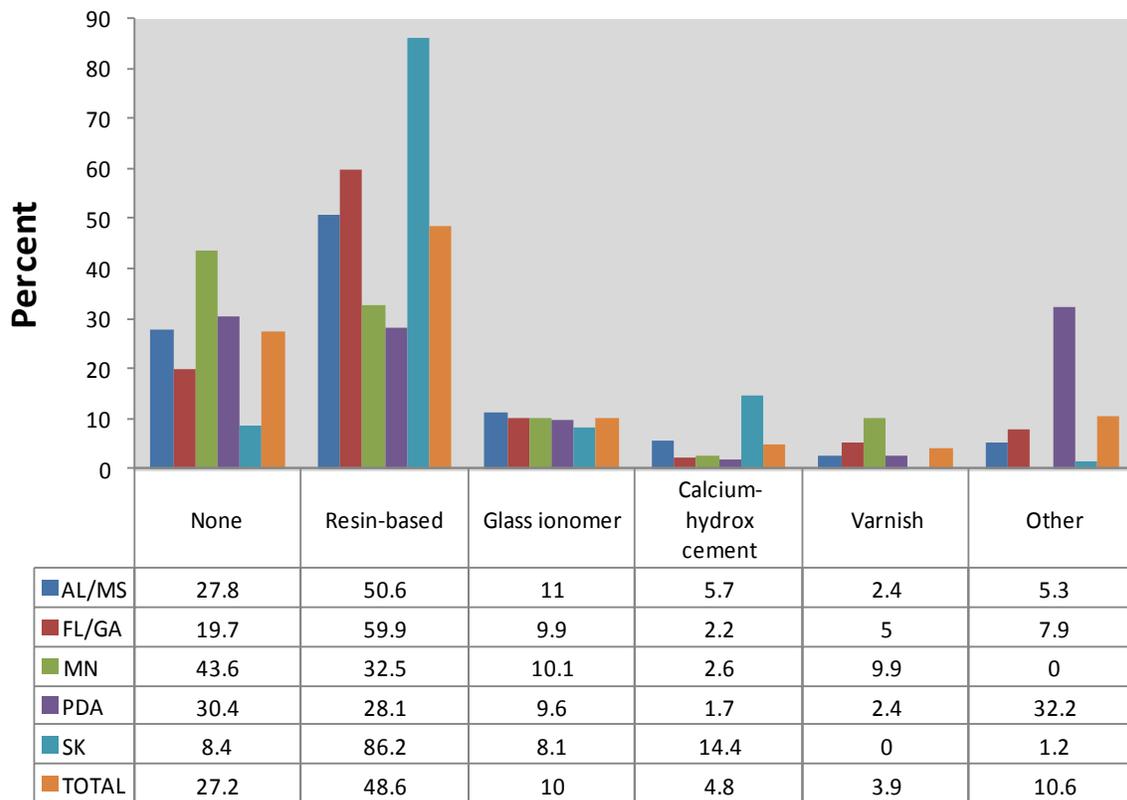


- The most common reason for repairing the restoration was abrasion at about 48% overall, followed by tooth fracture (29%).
- This was similar across regions except for MN, in which tooth fracture (54%) was the most common reason followed by abrasion (18%).

8. Did you use a base, lining or bonding material? (Please mark all that apply.)

- 1  None
- 2  Resin-based bonding material
- 3  Glass ionomer, resin-modified glass ionomer
- 4  Calcium hydroxide-based cement or liner
- 5  Varnish (e.g., Copalite)
- 6  Other (specify) \_\_\_\_\_

### Question 8: Base, lining or bonding material used

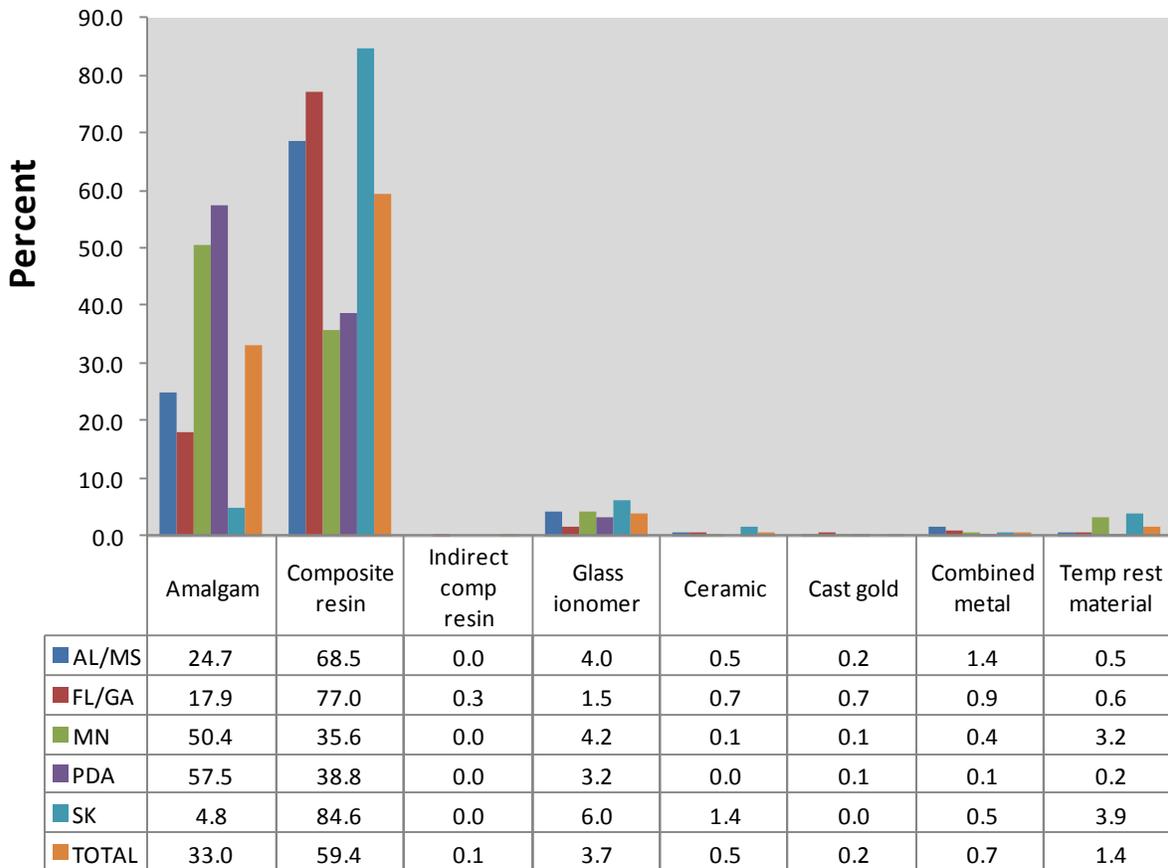


- Resin-based bonding material was used most often at approximately 49% overall, followed by not using any base, lining or material (27%). This varied considerably across regions.

9. What material did you use for this restoration? (Please mark all that apply.)

- 1  Amalgam
- 2  Composite resin, including compomer, directly placed
- 3  Indirect composite resin
- 4  Glass ionomer, resin-modified glass ionomer
- 5  Ceramic or porcelain
- 6  Cast gold or other base metallic restoration
- 7  Combined metal/ceramic restoration
- 8  Temporary restorative material

### Question 9: Restoration material used

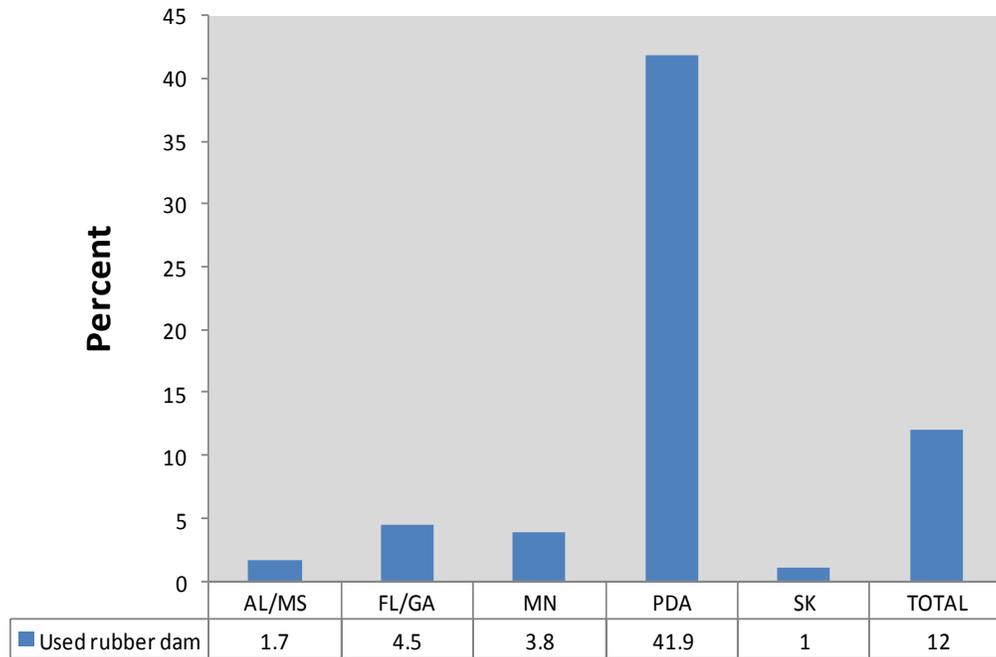


- Composite resin was the most common restoration material used at 59% overall, followed by amalgam (33%).
- Though these two materials were most commonly used across all regions, their use varied across regions. MN and PDA participants prefer amalgam to composite resin, while SK use of composite resin was on the preponderance of restorations, at 85%.

10. Did you use a rubber dam during the restorative procedure?

- 1  Yes
- 2  No

### Questions 10: Rubber Dam Use



- Overall, rubber dams were used during 12% of restoration procedures. This was due almost exclusively to PDA where they were used on 42% of procedures compared to less than 5% in the other regions.