Summary of inter-examiner reliability results for the 48-month field phase

Four examiners participated in the 48-month field phase of the FDCS. Re-examinations were done on 61 subjects, which were dispersed temporally throughout the field phase. These 61 subjects had a mean (S.D.) of 19.7 (7.4) teeth (range of 4 to 32) and a mean (S.D.) of 0.5 (2.0) retained root fragments (range of 0 to 15).
## Summary of inter-examiner agreement for surface-specific coronal and root caries assessments

<table>
<thead>
<tr>
<th>Pairing</th>
<th># subj. assessed</th>
<th>CORONAL % agreement</th>
<th>ROOT % agreement</th>
<th>CORONAL kappa</th>
<th>CORONAL coeff. Y</th>
<th>ROOT kappa</th>
<th>ROOT coeff. Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>61</td>
<td>1,201</td>
<td>99%</td>
<td>99%</td>
<td>0.80</td>
<td>0.93</td>
<td>0.81</td>
</tr>
</tbody>
</table>

Using data from the primary examiner, these 61 subjects had the following characteristics:

- **a)** % subjects with one or more carious crown surfaces: 42%
- **b)** % subjects with one or more carious root surfaces: 34%
- **c)** % subjects with one or more carious tooth surfaces: 51%
- **d)** mean coronal DS: 3.3 (9.9); range of 0 to 75
- **e)** mean coronal DFS: 29.1 (24.9); range of 0 to 93
- **f)** mean root DS: 2.7 (9.6); range of 0 to 74
- **g)** mean root DFS: 3.9 (9.7); range of 0 to 74

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### Summary of inter-examiner agreement for periodontal attachment level

<table>
<thead>
<tr>
<th>Pairing</th>
<th># subj. assessed</th>
<th># teeth with LOA* of 4+ mm</th>
<th>% pairs +/- 1 mm</th>
<th>% pairs +/- 2mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>61</td>
<td>332</td>
<td>30%</td>
<td>89%</td>
</tr>
</tbody>
</table>

* LOA = loss of attachment relative to the cementoenamel junction

Mean (S.D.) attachment loss in teeth assessed was 3.1 mm (1.6)
For the sake of consistency across examination time points, agreement between examiners was forced for these per-subject measures: number of teeth, retained root fragments, fixed prosthetic pontics and cantilevers.

Tooth-level estimates of inter-examiner agreement were done on these measures:

1) **teeth that have bulk restoration fracture(s)**  
   a) 61 subjects assessed, who had 1,201 teeth and a mean (S.D.) of 0.3 (0.9) bulk fractures (range of 0 to 5).  
   b) 8 teeth were called as having a bulk fracture by at least one examiner  
   c) percent agreement=99%; Y=0.82; kappa=0.20

2) **teeth that have cusp/incisal edge fracture(s)**  
   a) 61 subjects assessed, who had 1,201 teeth and a mean (S.D.) of 0.4 (0.8) cusp fractures (range of 0 to 3).  
   b) 13 teeth were called as having a cusp fracture by at least one examiner  
   c) percent agreement=99%; Y=0.94; kappa=0.70

3) **teeth that have root defect(s)**  
   a) 61 subjects assessed, who had 1,201 teeth and a mean (S.D.) of 0.2 (0.6) root defects (range of 0 to 4).  
   b) 7 teeth were called as having a root defect by at least one examiner  
   c) percent agreement=99%; Y=0.83; kappa=0.23

4) **teeth that are mobile**  
   a) 61 subjects assessed, who had 1,201 teeth and a mean (S.D.) of 0.1 (0.6) mobile teeth (range of 0 to 4).  
   b) 13 teeth were called as mobile by at least one examiner  
   c) percent agreement=99%; Y=0.90; kappa=0.55

Y = coefficient of colligation