

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

Pairing	# subj.	# teeth assessed	CORONAL % agreement	ROOT % agreement	CORONAL kappa	CORONAL coeff. Y	ROOT kappa	ROOT coeff. Y
Overall	61	1,201	99%	99%	0.80	0.93	0.81	0.93

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

Summary of inter-examiner agreement for periodontal attachment level

Pairing	# subj.	# teeth assessed	% teeth assessed with LOA* of 4+ mm	% pairs +/- 1 mm	% pairs +/- 2mm
Overall	61	332	30%	89%	98%

* LOA = loss of attachment relative to the cemento-enamel 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