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The Child Dental Health Survey Queensland 1989

by

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THE CHILD DENTAL HEALTH SURVEY - QUEENSLAND 1989

Purpose of this report

This report provides descriptive findings from the Queensland component of the Child Dental Health Survey. Information listed in the tables includes: the age and sex of children in the sample, their deciduous and permanent caries experience and children's history of school dental service examinations. These data were collected between January and December 1989 by a sampling procedure which randomly selected one in five children. This was achieved by systematically selecting every fifth record of information from each child's examination data. The following sections briefly describe each table.

Table 1: Demographic composition of the sample

The age composition of the sample is closely related to the main target groups of children served by the School Dental Service in Queensland. For this reason children aged 4 years or 13 years and over are represented in smaller proportions than they would appear in the Queensland population. Moreover, the smaller numbers of sampled children in these age groups results in less reliability of several computed statistics in subsequent tables and they have been suppressed where indicated. It is also important to note that the children who are outside the main target groups may differ on other key characteristics and statistics relating to children aged 4 years or 13 years and over may be less representative of the Queensland population.

Table 3: Deciduous teeth: age-specific prevalence

The dmft prevalence in children aged 4 to 9 increases quite consistently across ages ranging between 1.73 and 2.73. There is also a range of approximately 1.0 decayed teeth (from 0.47 to 1.49) between these ages, although this level of untreated decay is highest in the younger age groups. The decline in dmft over the age of 8 should clearly be interpreted as an effect due to exfoliation of deciduous teeth as children grow older. Also apparent from this table is the magnitude of the d/dmf percentage, particularly in the youngest children aged 4 and 5 years where more than seventy percent of the dmft index is due to decayed teeth.

Table 4: Permanent teeth: age specific prevalence

Compared with the deciduous dentition, there is a smaller mean number of decayed teeth in the permanent dentition for all ages up to 10 years. Children aged 10 years and over have more permanent teeth than deciduous teeth affected by untreated decay. The mean DMFT increases fairly consistently across age groups to a level of 1.65 among 12 year olds. There is a less consistent age-associated pattern over the age of 12 which probably reflects some special characteristics of School Dental Service patients in these ages. That is, they are probably less representative of the Queensland population than the younger age groups.

This table also demonstrates that a relatively high percentage of the DMFT index is attributable to untreated decay in younger children as reflected in the D/DMFT percentage. However in children aged 9 years and over, less than 40 per cent of the DMFT index is due to untreated decay. In most ages, the D/DMFT percentage is higher than the corresponding percentage in the deciduous dentition.

Table 5: All teeth: age specific prevalence

The information in this table indicates firstly that 30 per cent or more of children aged 4 to 12 have at least one actively decayed tooth in the permanent or deciduous dentition. There is a tendency for younger children to be more likely to have decay in the mixed dentition teeth, and this is a consequence of the relatively higher prevalence of active deciduous decay (as described for table 3). Younger children are also more likely to be extensively affected with decay, as indicated by the range from 6.2 per cent to 16.6 per cent of 4 to 7 year olds with four or more decayed teeth in the combined deciduous and permanent dentition. It is encouraging to observe that older children are more likely to have no active decay, and that fewer than 5 per cent have four or more teeth affected by active decay. The exception to this pattern is observed in 14 year olds, although this small number of children may be less representative of the Queensland child population.

This table also demonstrates the clear pattern of age-associated reduction in the percentage of children who are free of filled or decayed, missing and filled teeth. It is noteworthy that only one third or fewer children over the age of 8 have no caries experience in the combined deciduous and permanent dentition.

Table 8: School Dental Service examinations

This table divides into a left and right portion. The percentage of all children who have had a previous School Dental Service examination is shown in columns 3 to 4. More than three quarters of children in the youngest ages (4 and 5) had not been previously examined, indicating that they received their first School Dental Service examination during 1989. There is a sharp age-associated decrease in the percentage of children receiving their first examination for those aged 6 to 8, and approximately 20 of children in older ages received an initial examination in 1989.

In columns 5 and 6, the group of children with a known previous examination in the School Dental Service are described with regard to the time since their last examination. Fewer than 10 per cent of children in most age groups had been previously examined within 12 months, although there was a tendency for children aged 12 and over to have had a more recent examination. As discussed elsewhere, this tendency may reflect differences in the characteristics of older patients within the School Dental Service.

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TABLE 1: DEMOGRAPHIC COMPOSITION OF THE SAMPLE

Data for the Child Dental Health Survey are collected from a stratified random sample of children in all Australian States and Territories. In Queensland the sampling is 1:5. This ratio is achieved by systematically selecting every fifth record of data from all children examined in the School Dental Service. The following table describes the number of records processed from children in Queensland.

State/Territory QUEENSLAND

Sampling Ratio: 1:5

Data for period January-December 1989

Date of Report: October 3, 1990

NUMBER OF RECORDS PROCESSED

<u>Age (years)</u>	<u>Males</u>	<u>Females</u>	<u>Persons</u>
4	1206	1163	2369
5	3039	2999	6038
6	3548	3382	6930
7	3547	3187	6734
8	3420	3131	6551
9	3300	3114	6414
10	3257	3010	6267
11	3153	3011	6164
12	2086	1761	3847
13	292	228	520
14	77	38	115
15	44	22	66
16	15	23	38
17	14	6	20
18	4	4	8
Total	27002	25079	52081

TABLE 2: COUNTRY OF BIRTH (INCLUDING ABORIGINALITY)

These data were not collected in Queensland during
the period January-December, 1989

TABLE 3: DECIDUOUS TEETH: AGE-SPECIFIC PREVALENCE¹

This table uses Statewide data to describe the dmft index and its components for individual (year of birth) ages. Indices are calculated from data collected over a 12 month period. Where children received more than one examination during this period, the information derived from examinations other than the first is excluded. Age-specific indices denoted with an asterisk (*) are those in which the relative standard error exceeds 25 per cent, and population estimates of these indices are statistically unreliable.

State/Territory QUEENSLAND

Sampling Ratio: 1:5

Data for period January-December 1989

Date of Report: October 3, 1990

Age (years)	Number of Children in Sample	decayed		dmft		d/dmft	Children with dmft=0
		mean	sd	mean	sd	%	%
4	2369	1.49	2.73	1.73	3.01	87.9	59.5
5	6038	1.39	2.57	2.04	3.21	70.1	53.8
6	6930	1.07	2.09	2.34	3.28	47.5	48.3
7	6734	0.66	1.41	2.48	3.05	28.7	43.3
8	6551	0.58	1.24	2.73	3.01	23.6	38.7
9	6414	0.47	0.97	2.68	2.84	20.1	36.2
10	6267	0.37	0.91	2.17	2.56	18.7	40.8
11	6164	0.23	0.69	1.26	2.03	19.3	59.3
12	3847	0.13	0.51	0.70	1.49	20.2	73.1

¹ Legend: d - decayed deciduous teeth
dmft - decayed, missing or filled deciduous teeth
sd - standard deviation

TABLE 4: PERMANENT TEETH: AGE-SPECIFIC PREVALENCE¹

This table uses Statewide data to describe the DMFT index and its components for individual (year of birth) ages. Indices are calculated from data collected over a 12 month period. Where children received more than one examination during this period, the information derived from examinations other than the first is excluded. Age-specific indices denoted with an asterisk (*) are those in which the relative standard error exceeds 25 per cent, and population estimates of these indices are statistically unreliable.

State/Territory QUEENSLAND

Sampling Ratio: 1:5

Data for period January-December 1989

Date of Report: October 3, 1990

Age (years)	Number of Children in Sample	DECAYED		DMFT		D/DMFT	Children with DMFT=0
		mean	sd	mean	sd	%	%
5	6038	0.01	0.15	0.02	0.30	85.5	99.0
6	6930	0.09	0.40	0.11	0.51	87.0	93.6
7	6734	0.18	0.56	0.27	0.74	68.0	84.7
8	6551	0.21	0.59	0.48	0.96	46.6	74.4
9	6414	0.22	0.63	0.69	1.21	33.8	66.9
10	6267	0.26	0.69	1.01	1.48	27.7	57.0
11	6164	0.32	0.80	1.31	1.71	24.2	49.1
12	3847	0.42	1.05	1.65	2.08	24.3	43.5
13	520	0.65	1.50	2.21	2.59	27.4	38.5
14	115	0.45	0.93	2.25	2.68	25.7	40.0
15	132	0.40	0.90	2.75	3.27	16.5	33.3

¹ Legend: D - decayed permanent teeth
DMFT - decayed, missing or filled permanent teeth
sd - standard deviation

TABLE 5: ALL TEETH: AGE-SPECIFIC PREVALENCE¹

This table uses Statewide data to describe the combined dmft and DMFT indices and their components for individual (year of birth) ages. Indices are calculated from data collected over a 12 month period. Where children received more than one examination during this period, the information derived from examinations other than the first is excluded. Age-specific indices denoted with an asterisk (*) are those in which the relative standard error exceeds 25 per cent, and population estimates of these indices are statistically unreliable.

State/Territory QUEENSLAND

Sampling Ratio: 1:5

Data for period January-December 1989

Date of Report: October 3, 1990

Age (years)	Number of Children in Sample	% of Children with d+D=					% of Children with	
		0	1	2	3	4+	f+F=0	dmft+DMFT=0
4	2369	61.2	10.2	7.7	4.2	16.6	91.2	59.3
5	6038	60.6	11.0	8.8	5.2	14.4	79.6	53.6
6	6930	61.3	13.2	9.5	5.3	10.7	63.9	46.8
7	6734	63.9	16.0	9.3	4.7	6.2	50.2	40.2
8	6551	62.2	18.8	9.4	4.4	5.2	41.7	33.8
9	6414	63.9	19.8	8.3	4.2	3.9	36.2	29.9
10	6267	65.5	19.0	8.9	3.8	2.9	34.7	28.7
11	6164	69.4	17.1	8.0	3.1	2.4	38.2	32.0
12	3847	70.1	16.5	7.0	3.9	2.5	40.2	33.3
13	519	64.9	17.7	10.4	3.7	3.3	42.2	35.1
14	82	68.7	15.7	13.9	*	8.0	44.3	33.9
15	132	77.3	10.6	*	*	*	31.8	27.3

¹ Legend: d - decayed deciduous teeth
D - decayed permanent teeth
f - deciduous teeth restored due to caries
F - permanent teeth restored due to caries
dmft - decayed, missing or filled deciduous teeth
DMFT - decayed, missing or filled permanent teeth

TABLE 6: FISSURE SEALANTS: AGE-SPECIFIC PREVALENCE

These data were not collected in Queensland during
the period January-December, 1989

TABLE 7: IMMEDIATE TREATMENT NEEDS: AGE-SPECIFIC DISTRIBUTION

These data were not collected in Queensland during
the period January-December, 1989

**TABLE 8: SCHOOL DENTAL SERVICE EXAMINATIONS:
AGE-SPECIFIC DISTRIBUTION**

This table describes the percentage distribution of children who have received initial and subsequent dental examinations in the School Dental Service. Data from all examinations of children who were examined during the report period are included in this table; percentage estimates denoted with an asterisk (*) are those in which the relative standard error exceeds 25 per cent, and population estimates of these percentages are statistically unreliable.

State/Territory QUEENSLAND

Sampling Ratio: 1:5

Data for period January-December 1989

Date of Report: October 3, 1990

Age (years)	Number of Children Examined	PREVIOUS EXAMINATION IN SCHOOL DENTAL SERVICE		CHILDREN WITH PREVIOUS EXAMINATION	
		% of children Previously examined	First examination	Months since last examination ¹ (%)	
				0-12	13+
4	2403	3.0	97.0	*	94.4
5	6363	25.9	74.1	3.8	96.2
6	7918	55.0	45.0	9.2	90.8
7	7341	77.3	22.7	8.1	91.9
8	7067	79.8	20.2	7.3	92.7
9	6927	81.3	18.7	7.4	92.6
10	6829	80.9	19.1	8.3	91.7
11	6739	82.0	18.0	8.7	91.3
12	4482	81.2	18.8	14.5	85.5
13	637	74.6	25.4	20.8	79.2
14	129	77.5	22.5	*	89.9
15	156	80.1	19.9	17.6	82.4

¹ Excludes those with no previous examination and where the date of previous examination is unknown.