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THE UNIVERSITY OF
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The Child Dental Health Survey Tasmania March - September 1989

by

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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. The sampling procedure selects a constant proportion of children for whom date of birth is known by selecting only those children born on particular dates. In Tasmania the sampling ratio for children whose date of birth is known is 1:2.5.

The following table describes the number of records processed from children in Tasmania.

State/Territory TASMANIA — Sampling Ratio: 1:2.5

Data for period March - September 1989 — Date of Report: October 2, 1990

Age (Years)	NUMBER OF CHILDREN IN SAMPLE		
	Males	Females	Persons
3	11	14	25
4	68	66	134
5	400	379	779
6	624	591	1215
7	639	612	1251
8	655	596	1251
9	599	588	1187
10	645	627	1272
11	558	571	1129
12	434	445	879
13	445	400	845
14	382	410	792
15	464	422	886
16	61	41	102
17	18	29	47
18	3	7	10
Total	**6006**	**5798**	**11804**

THE CHILD DENTAL HEALTH SURVEY - TASMANIA MARCH-SEPTEMBER 1989

Purpose of this report

This report provides descriptive findings from the Tasmania 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, frequency of fissure sealants, immediate treatment needs and children's history of school dental service examinations. These data were collected between March and September 1989 by a sampling procedure which randomly selected one 2.5 children. 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 Tasmania. For this reason children aged less than 4 years or 15 years and over are represented in smaller proportions than they would appear in the Tasmania population, and these aged groups have been combined in subsequent tables. Nonetheless, the small numbers of sampled children in these age groups results in less reliability of several computed statistics in the 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 15 years and over may be less representative of the Tasmania population.

Table 3: Deciduous teeth: age-specific prevalence

The dmft prevalence in children aged 5 to 9 varies across a reasonably narrow range, with an average of between 1.70 and 2.14. Similarly, there is little variation in the mean number of decayed teeth in these ages ranging from 0.57 to 0.80, although it is apparent that untreated decay is more likely among younger children. The prevalence of decayed and dmf teeth among four year old children appears to be higher than expected, and this may reflect some special characteristics of School Dental Service patients of this age. The decline in dmft over the age of 9 should clearly be interpreted as an effect due to exfoliation of deciduous teeth as children grow older.

Also apparent from this table is the variation in the magnitude of the d/dmf percentage among ages; the percentage declines quite consistently across age groups, indicating that a diminishing proportion of the caries experience in deciduous teeth is attributable to untreated decay among older children. This is essentially a consequence of the lower prevalence of untreated decay in older children. Finally, the percentage of children who have no caries experience (percentage with dmft=0) is quite consistently high, indicating that approximately forty per cent or more of children in all ages have no deciduous caries experience.

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 12 years, although the prevalence tends to increase with age. The mean DMFT also increases fairly consistently across age groups, although the prevalence for children aged 6 to 12 years is encouragingly low, and the 12 year old DMFT of 1.06 is very close to the "Health for All Australians" target for the year 2000. There is a sharp increase in DMFT after 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 Tasmania 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 among children aged 10 or more, less than 40 per cent of the DMFT index is due to untreated decay. In most ages, the D/DMFT percentage is similar to the corresponding percentage in the deciduous dentition.

The percentage of children with no caries history in the permanent dentition (percentage with DMFT=0) reflects the DMFT prevalence, demonstrating very high levels of dental health. For children aged 12 or less, more than one half have no caries experience.

Table 5: All teeth: age specific prevalence

The information in this table indicates firstly that fewer than forty per cent of children in all ages have some untreated decay in the mixed (permanent and deciduous) dentition. Moreover, most children with untreated decay have only one cavity, and fewer than 10 per cent of children aged 5 or more have 4 or more decayed teeth. Indeed, this latter figure of caries severity is particularly low (less than five per cent) for children aged 8 or more years.

This table also indicates that the vast majority, more than 95 per cent of children, have no teeth which are missing due to caries. Finally, the percentage of children with no filled or decayed, missing and filled teeth in the mixed dentition is displayed. There are clear associations with age such that children in the middle of the mixed dentition stage (aged 8-10) and those aged over 12 are most likely to have some caries experience. Most of this caries experience is, however, attributable to restorations.

Table 6: Fissure sealants

Fissure sealants are present in high numbers, and the number of permanent, fissure sealed teeth increases with age to a mean of 1.5 or more in children aged over 12. At all ages, there are substantially more sealed teeth than decayed teeth (Table 4). The percentage of children with fissure sealants is further described among those with no caries experience (DMFT=0) and those with some caries experience (DMFT=1+). Children with some caries experience are much more likely to have fissure sealants, and this may reflect an effective level of targeting in the provision of sealants to children at greater risk.

Table 7: Immediate treatment needs

The categorisation of immediate treatment needs is a new item in the redesigned Child Dental Health Survey, and in this table the distribution of children with immediate treatment needs is displayed. There were very few children (one per cent or less) identified to be in need of immediate treatment, and as a consequence, many of the statistics in this table have been suppressed. Consequently it is difficult to draw any conclusions about the characteristics of these children, although it would appear that they have a particularly dmft prevalence of 3.0 or more. The low frequency of immediate treatment needs is also consistent with the small percentage of children with extensive untreated disease (table 5).

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 and 4. As may be anticipated, the percentage of children receiving a first examination diminishes rapidly with age, and over 95 per cent of children aged 7 or more had previously been examined in the School Dental Service.

In columns 7 to 8, 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. The vast majority of re-examined children had been previously examined within 12 months, although there was a tendency for older children to have been examined within in a longer recall period of 13 to 24 months. There were very few children who had been examined two or more years ago.

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TABLE 2: COUNTRY OF BIRTH (INCLUDING ABORIGINALITY)

This information was not recorded in Tasmania during the reporting period.

TABLE 3: DECIDUOUS TEETH: AGE-SPECIFIC PREVALENCE[1]

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 6 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 TASMANIA

Sampling Ratio: 1:2.5

Data for period March-September 1989

Date of Report: October 2, 1990

Age (years)	Number of Children in Sample	decayed mean	decayed sd	dmft mean	dmft sd	d/dmft %	Children with dmft=0 %
4	161	1.31	2.30	1.93	2.89	65.8	48.4
5	779	0.80	1.63	1.54	2.58	53.5	57.4
6	1215	0.80	1.64	1.70	2.73	49.5	54.0
7	1251	0.68	1.29	1.89	2.63	38.2	47.7
8	1251	0.64	1.12	2.09	2.53	34.9	40.4
9	1187	0.57	1.08	2.14	2.50	28.6	39.3
10	1273	0.36	0.75	1.85	2.14	21.7	40.8
11	1129	0.29	0.77	1.17	1.86	26.1	59.0
12	879	0.14	0.47	0.59	1.27	25.5	75.0

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

TABLE 4: PERMANENT TEETH: AGE-SPECIFIC PREVALENCE[1]

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 7 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 TASMANIA — Sampling Ratio: 1:2.5

Data for period March-September 1989 — Date of Report: October 2, 1990

Age (years)	Number of Children in Sample	DECAYED mean	DECAYED sd	DMFT mean	DMFT sd	D/DMFT %	Children with DMFT=0 %
5	779	*	*	*	*	93.2	98.6
6	1215	0.05	0.31	0.05	0.34	86.0	96.5
7	1251	0.11	0.55	0.19	0.69	61.0	89.3
8	1251	0.17	0.75	0.39	1.00	42.8	78.8
9	1187	0.16	0.50	0.46	0.91	38.8	73.7
10	1273	0.18	0.51	0.77	1.24	25.2	61.8
11	1129	0.22	0.62	0.84	1.37	26.2	60.2
12	879	0.21	0.58	1.06	1.49	21.4	53.4
13	845	0.41	0.90	1.70	2.13	24.2	41.4
14	792	0.44	0.95	2.04	2.33	21.8	35.7
15	1045	0.60	1.38	2.92	3.11	21.5	26.6

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

TABLE 5: ALL TEETH: AGE-SPECIFIC PREVALENCE[1]

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 7 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 TASMANIA — Sampling Ratio: 1:2.5

Data for period March-September 1989 — Date of Report: October 2, 1990

Age (years)	Number of Children in Sample	% of Children with d+D=					% of Children with		
		0	1	2	3	4+	m+M=0	f+F=0	dmft+DMFT=0
4	161	57.1	17.4	*	7.5	13.0	97.5	77.0	48.4
5	779	68.2	13.0	5.5	5.0	8.3	96.8	73.3	57.0
6	1215	66.1	14.4	7.1	4.9	7.5	96.6	70.0	53.3
7	1251	64.3	15.5	9.8	4.6	5.7	96.1	58.4	45.2
8	1251	59.0	20.9	11.3	4.5	4.4	95.8	48.8	36.6
9	1187	61.1	19.9	10.8	4.9	3.4	96.5	43.8	33.2
10	1273	66.6	20.5	8.4	2.6	1.9	96.5	37.3	29.7
11	1129	70.9	16.7	7.7	2.7	1.9	98.8	45.2	37.4
12	879	77.9	13.5	5.3	2.6	*	99.1	48.1	40.7
13	845	73.4	14.7	7.6	2.6	1.8	98.1	45.0	36.7
14	792	72.9	16.9	5.1	2.5	2.7	97.3	41.8	34.0
15	1045	66.7	18.9	8.9	2.3	3.2	95.2	33.1	25.7

[1] Legend:
- d - decayed deciduous teeth
- D - decayed permanent teeth
- m - deciduous teeth missing due to caries
- M - permanent teeth missing due to caries
- 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[1]

This table uses Statewide data to describe the distribution of fissure sealants for individual (year of birth) ages, along with the caries experience of those who have fissure sealants and those who do not. Indices are calculated from data collected over a 7 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 TASMANIA

Sampling Ratio: 1:2.5

Data for period March-September 1989

Date of Report: October 2, 1990

Age (years)	Number of Children in Sample	Number of Sealants mean	Number of Sealants sd	CHILDREN WITH DMFT=0 Number	CHILDREN WITH DMFT=0 % with F/S=1+	CHILDREN WITH DMFT=1+ Number	CHILDREN WITH DMFT=1+ % with F/S=1+
6	1215	0.08	0.49	1172	2.6	43	*
7	1251	0.35	0.99	1117	11.3	134	31.3
8	1251	0.75	1.36	986	22.7	265	43.8
9	1187	1.08	1.57	875	31.5	312	53.8
10	1273	1.31	1.67	787	39.6	486	52.1
11	1129	1.25	1.70	680	39.1	449	49.0
12	879	1.43	1.90	469	39.2	410	56.3
13	845	1.54	2.27	350	33.1	495	53.7
14	792	1.54	2.25	283	31.4	509	50.7
15	1045	1.50	2.36	278	24.8	767	46.8

[1] Legend:DMFT - decayed, missing or filled permanent teeth

TABLE 7: IMMEDIATE TREATMENT NEEDS: AGE-SPECIFIC DISTRIBUTION[1]

This table, based on Statewide data, describes the number and proportion of children in immediate need of dental treatment. This classification is accorded to children who have, or who are likely to develop within four weeks, oral pain or infection. The dental caries experience of this group of children is also described. Indices are calculated from data collected over a 7 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 TASMANIA — Sampling Ratio: 1:2.5

Data for period March-September 1989 — Date of Report: October 2, 1990

		CHILDREN IN NEED OF IMMEDIATE TREATMENT										
Age (years)	Number of Children in Sample	No.	% of all children	dmft mean	dmft sd	DMFT mean	DMFT sd	% with d+D= 0	1	2	3	4+
4	161	0	-	-	-	-	-	-	*	-	-	*
5	779	4	*	*	*	-	-	-	*	*	*	*
6	1215	4	*	5.00	2.16	-	-	-	*	*	*	*
7	1251	6	*	6.50	1.76	*	*	*	*	*	*	50.0
8	1251	10	0.8	4.80	3.74	*	*	*	*	*	*	*
9	1187	12	1.0	3.83	2.92	*	*	*	*	*	*	*
10	1273	7	*	5.71	3.25	*	*	-	*	*	*	-
11	1129	5	*	3.00	1.58	*	*	*	*	*	*	-
12	879	7	*	*	*	-	-	-	*	-	-	-
13	845	1	*	-	-	*	*	*	*	*	-	-
14	792	5	*	-	-	*	*	-	-	-	-	*
15	1045	5	*	*	*	*	*	-	-	-	-	*

[1] Legend: dmft - number of decayed, missing or filled deciduous teeth
DMFT - number of decayed, missing or filled permanent teeth
d - number of decayed deciduous teeth
D - number of decayed permanent teeth

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

This table describes the percentage distribution of children who have received dental examination within specified time periods. 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 TASMANIA

Sampling Ratio: 1:2.5

Data for period March-September 1989

Date of Report: October 2, 1990

Age (years)	Number of Children Examined	PREVIOUS EXAMINATION IN SCHOOL DENTAL SERVICE: % of children Previously examined	PREVIOUS EXAMINATION IN SCHOOL DENTAL SERVICE: % of children first examination	CHILDREN WITH KNOWN DATE OF PREVIOUS EXAMINATION: Months since last examination[1] (%) 0-6	7-12	13-24	25+
4	1101	15.7	84.3	17.9	60.1	19.1	*
5	1355	59.3	40.7	15.8	68.5	14.3	1.4
6	1400	89.2	10.8	12.2	66.6	20.5	*
7	1371	94.6	5.4	9.4	66.9	23.2	*
8	1358	94.9	5.1	9.2	64.1	26.2	*
9	1267	96.1	3.9	8.5	66.3	24.1	1.1
10	1348	96.5	3.5	8.5	65.7	25.0	0.8
11	1210	96.6	3.4	11.7	63.6	23.8	0.9
12	920	97.6	2.4	8.0	55.9	35.2	*
13	871	98.4	1.6	3.3	65.5	28.8	2.5
14	823	97.3	2.7	3.1	61.5	31.6	3.7
15	1099	96.5	3.5	5.5	62.0	27.2	5.4

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