



AIH DENTAL STATISTICS
AND RESEARCH UNIT

**DENTAL
HEALTH
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The Child Dental Health Survey Victoria, 1989

by

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THE CHILD DENTAL HEALTH SURVEY - VICTORIA 1989

Purpose of this report

This report provides descriptive findings from the Victorian 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, and children's history of school dental service examinations. These data were collected between April and December 1989 by a sampling procedure which systematically selected every eighth child who received an examination in the School Dental Service. 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 Victoria. For this reason children aged 4 years or 10 years and over are represented in smaller proportions than they would appear in the Victorian population. Moreover, the small 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 important to note that the eligibility criteria differs among the age groups, and that several of the sociodemographic characteristics of the older children included in this survey may differ from those of the younger children.

Table 3: Deciduous teeth: age-specific prevalence

The d and dmft prevalence in children aged 5 to 8 varies across a reasonably narrow range, with an average of between 1.00 and 1.37 decayed teeth and between 1.92 and 2.69 dmft teeth. The decline in dmft over the age of 7 should clearly be interpreted as an effect due to exfoliation of deciduous teeth as children grow older. It will be noted that the dmft prevalence for children aged 5, 6 and 7 is higher than that observed in 1986. While these differences may be due in part to differences in the sampled population, it should also be recalled that the index now includes teeth which are missing due to caries - a category which was not recorded in 1986. Since missing deciduous teeth are most likely to be recorded for children aged 5 to 8, this modification to the index may account for much of the observed increase in dmft in these ages. Also apparent from this table is the magnitude of the d/dmf percentage, particularly in children aged 5 to 8 years where more than forty 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 11 years. The mean DMFT increases fairly consistently with age. This is a natural consequence of the index which reflects past as well as current caries experience. In view of this pattern of association with age, the mean DMFT of 11 year olds appears to be higher than expected and that of 12 year olds may possibly be lower. It is appropriate to consider that 11 and 12 year olds in the Victorian School Dental Service differed in their eligibility criteria, and are probably less representative of the Victorian population than the younger age groups. This table also demonstrates that a relatively high percentage of the DMFT index is attributable to active decay, and this is reflected in the D/DMFT percentage. In all 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 forty per cent or more of children in all ages have at least one actively decayed tooth. Indeed, between 10 and 16 per cent of all children aged between five and 11 years have four or more teeth with active caries when the deciduous and permanent dentitions are combined.

This table shows the very high percentage of children of all ages who have no teeth missing due to caries. However, there is a clear pattern of age-associated reduction in the percentage of children who are free of filled or decayed, missing and filled teeth.

Table 6: Fissure sealants

It is apparent that fissure sealants are generally confined to a limited range of ages between 7 and 10 years. Consequently, many of the statistics for other ages in this table are unreliable. The mean number of sealed teeth in children aged 7 to 10 years is quite similar to the mean number of decayed permanent teeth (Table 4). The table further divides the sample into children with no caries experience in the permanent dentition (DMFT=0) and those with some caries experience (DMFT=1+). It appears that fissure sealants are approximately as frequent in both groups. It is only possible to speculate as to whether this reflects the effectiveness of fissure sealants when used in cases of high risk, or whether fissure sealants are being used at a similar rate in groups with and without caries experience.

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 5. As may be expected, three quarters of children in the youngest ages (4 and 5) received their first examination during 1989. Furthermore, it is clear that older children were more likely to have had a School Dental Service examination at some time in the past, although the highest percentage is 69.8 per cent among 10 year olds. However, it should be noted that the percentage of children whose previous School Dental Service history is unknown also increases among the older ages, and it is conceivable that this phenomenon may bias the estimate of past utilization.

In columns 6 to 9, 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. There are no clear patterns of association with age. In most age groups, the majority of previous examinations had been conducted more than 12 months previously. A notable exception is the five year old group, where 60.2 per cent had attended within the previous 6 months. However it needs to be recognized that this percentage refers to only 144 children (14.5 per cent of 993 children) who were receiving a subsequent examination and where the time since last examination was known

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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 Victoria the sampling ratio is 1:8. This ratio is achieved by systematically selecting every eighth child who receives an examination in the School Dental Service.

The following table describes the number of children included in the sample for Victoria.

State/Territory VICTORIA

Sampling Ratio: 1:8

Data for period April-December 1989

Date of Report: August 16, 1990

NUMBER OF CHILDREN IN SAMPLE¹

<u>Age (years)</u>	<u>Female</u>	<u>Male</u>	<u>Sex Unstated</u>	<u>Persons</u>
4	3	8	1	12
5	436	428	129	993
6	604	586	205	1395
7	294	285	104	683
8	412	425	132	969
9	503	516	192	1211
10	213	196	85	494
11	110	83	46	239
12	37	34	13	84
13	9	5	1	15
Total	2621	2566	908	6095

¹ Information from 6095 children is included in this table, derived from 6170 processed records. A total of seventy five records had missing age information, and accordingly these records have been excluded throughout this report.

TABLE 2: COUNTRY OF BIRTH (INCLUDING ABORIGINALITY)

This information was not collected in Victoria during the period of this report.

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 nine month period from April to December, 1989. 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 VICTORIA

Sampling Ratio: 1:8

Data for period April-December 1989

Date of Report: August 16, 1990

Age (years)	Number of Children in Sample ²	decayed		dmft		d/dmft	Children with dmft=0
		mean	sd	mean	sd	%	%
4	12	*	*	*	*	*	58.3
5	838	1.37	2.51	1.92	3.28	78.2	56.4
6	1,137	1.33	2.41	2.16	3.20	63.5	52.2
7	560	1.24	1.97	2.69	3.24	49.2	41.3
8	787	1.00	1.76	2.42	3.00	42.8	40.3
9	991	0.79	1.44	2.26	2.74	35.7	42.3
10	403	0.77	1.44	2.10	2.51	37.0	39.0
11	193	0.60	1.15	1.57	2.16	40.0	49.2
12	72	*	*	*	*	*	70.8

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

² Data were available for 4,993 children for this table. Children aged over 12 years, those for whom age or dmft information was unknown, and those who received second or subsequent examinations in the period are excluded from this table.

* Data suppressed due to high relative standard error (0.25 or greater)

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 nine month period from April to December, 1989. 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 VICTORIA

Sampling Ratio: 1:8

Data for period April-December 1989

Date of Report: August 16, 1990

Age (years)	Number of Children in Sample ²	DECAYED		DMFT		D/DMFT	Children with DMFT=0
		mean	sd	mean	sd	%	%
5	838	*	*	*	*	*	98.9
6	1136	0.10	0.49	0.11	0.56	95.1	94.5
7	561	0.22	0.67	0.27	0.75	84.1	85.4
8	793	0.44	0.93	0.64	1.18	67.6	69.7
9	999	0.47	0.97	0.83	1.33	58.6	61.5
10	402	0.49	1.18	1.11	1.69	41.7	57.2
11	196	0.83	1.42	2.01	2.36	43.2	39.8
12	72	0.64	1.27	1.54	1.98	*	52.8
13	15	*	*	*	*	*	*

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

² Data were available for 5,012 children for this table. Children aged under 5 years, those for whom age or DMFT information was unknown, and those who received second or subsequent examinations in the period are excluded from this table.

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 nine month period from April to December, 1989. 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 VICTORIA

Sampling Ratio: 1:8

Data for period April-December 1989

Date of Report: August 16, 1990

Age (years)	Number of Children in Sample ²	% of Children with d+D=					% of Children with		
		0	1	2	3	4+	m+M=0	f+F=0	dmft+DMFT=0
4	12	66.7	8.3	-	-	25.0	100.0	83.3	58.3
5	821	60.8	10.6	9.6	5.1	13.9	94.3	84.7	55.3
6	1,123	59.5	12.6	8.4	4.1	15.4	92.8	74.9	50.7
7	557	53.3	13.8	11.8	5.0	16.0	89.8	59.8	39.6
8	783	51.7	15.7	12.3	6.5	13.8	89.5	53.4	34.4
9	989	54.1	17.1	10.8	6.2	11.8	89.7	49.2	32.6
10	400	53.8	18.0	8.3	7.5	12.5	89.3	44.7	27.0
11	193	45.1	17.6	13.5	11.4	12.4	92.7	40.9	21.8
12	72	58.3	19.4	11.1	2.8	8.3	94.4	52.8	37.5
13	14	*	28.6	14.3	7.1	7.1	78.6	*	*

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

² Data were available for 4,969 children for this table. Children for whom age, dmft, or DMFT information was unknown, and those who received second or subsequent examinations in the period are excluded from this table.

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TABLE 6: FISSURE SEALANTS: AGE-SPECIFIC PREVALENCE¹

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 nine month period from April to December, 1989. 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 VICTORIA

Sampling Ratio: 1:8

Data for period April-December 1989

Date of Report: August 16, 1990

Age (years)	Number of Children in Sample ²	Number of Sealants		CHILDREN WITH DMFT=0		CHILDREN WITH DMFT=1+	
		mean	sd	Number	% with F/S=1+	Number	% with F/S=1+
6	1,136	*	*	1,074	*	62	*
7	561	0.11	0.56	479	4.4	82	*
8	790	0.19	0.79	553	6.0	237	5.9
9	996	0.21	0.83	613	7.3	383	7.0
10	401	0.19	0.81	230	6.1	171	8.8
11	194	*	*	78	*	116	*
12	72	*	*	38	*	34	*
13	15	*	*	3	-	12	*

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

² Legend: F/S - number of fissure sealed teeth
sd - standard deviation

* Data suppressed due to high relative standard error (0.25 or greater)

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TABLE 7: IMMEDIATE TREATMENT NEEDS: AGE-SPECIFIC DISTRIBUTION¹

This information was not collected in Victoria during the period of this report.

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 DISTRIBUTION¹**

This table describes the percentage distribution of children who received dental examinations 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 VICTORIA

Sampling Ratio: 1:8

Data for period April-December 1989

Date of Report: August 16, 1990

Age (years)	Number of Children Examined	PREVIOUS EXAMINATION IN SCHOOL DENTAL SERVICE			CHILDREN WITH KNOWN DATE OF PREVIOUS EXAMINATION			
		% of children			Months since last examination ² (%)			
		No	Yes	Unknown	0-6	7-12	13-24	25+
4	12	75.0	*	*	-	-	-	-
5	993	75.6	14.5	9.9	60.2	22.2	13.0	*
6	1395	56.1	31.3	12.6	30.9	21.4	44.6	*
7	683	35.7	49.8	14.5	15.6	18.9	51.5	14.0
8	969	15.6	68.9	15.5	11.6	9.7	36.8	41.9
9	1211	14.3	67.9	17.8	12.9	11.3	39.2	36.5
10	494	12.1	69.8	18.0	9.9	14.1	47.3	28.8
11	239	11.7	67.4	20.9	11.3	12.0	52.6	24.1
12	84	*	63.1	22.6	*	*	53.7	31.7
13	15	*	80.0	*	*	83.3	*	-

¹ Data are weighted to correct for the over-representation in the sample of children for whom date of birth is unknown.

² Excludes those with no previous examination and where the date of previous examination is unknown.