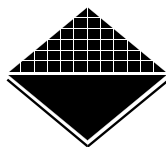


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Number 7**

**The Child Dental
Health Survey
Australia, 1993**

**M J Davies
A J Spencer**



AUSTRALIAN INSTITUTE OF
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		Mr David Brennan
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Any comments or information relevant to the subject matter of this report would be welcome. Correspondence should be directed to:

The Director
Australian Institute of Health and Welfare
Dental Statistics and Research Unit
The University of Adelaide
AUSTRALIA 5005

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THE CHILD DENTAL HEALTH SURVEY – AUSTRALIA 1993

Purpose of the report

This report provides descriptive epidemiological and service provision data concerning children's dental health in Australia. Data for the report have been derived from the Child Dental Health Survey, which monitors dental health of children enrolled in School Dental Services. The tables and figure contained in this report describe the demographic composition of the sample, deciduous and permanent caries experience, extent of immediate treatment needs, and prevalence of fissure sealants. State/Territory comparisons follow the national tables. The remainder of this introduction presents a description of the Survey methods and discussion of the findings for the national tables.

Description of Survey methods

Source and sampling of subjects for the Child Dental Health Survey

Data for the report have been derived from the Child Dental Health Survey, which monitors dental health of children enrolled in School Dental Services operated by the health departments or authorities of the six State and two Territory governments. The School Dental Services provide dental care principally to primary school aged children. The care typically provided includes dental examinations, preventive services and restorative treatment as required. However, there are some variations among State and Territory programs with respect to priority age groups and the nature of services. As a consequence, there are variations in the extent of enrolment in School Dental Services, with some jurisdictions serving more than 80 per cent of primary school children, and others serving smaller percentages. (For this reason the tables exclude data from Victorian children aged 12 years and above, due to the small and selective nature of the sample. Consequently, the numbers of children involved reduce across age groups.)

Sampling

The data for the Child Dental Health Survey derive from the routine examinations of children enrolled in School Dental Services. At the time of examination, children are sampled at random by selecting those born on specific days of the month. Some States adopt another systematic sample based, for example, on selecting every eighth case. Different sampling ratios, and consequently different days of birth, are used among the States and Territories according to the scheme presented on the following page. National data for the Child Dental Health Survey therefore constitute a stratified random sample of children from the School Dental Services. Children not enrolled with School Dental Services are not represented in the sample. The intention of stratification is to provide approximately equivalent numbers of children from each State or Territory, although differences in administration and local data requirements of the Services create some variation. This was particularly apparent for Victoria for 1993, where due to sampling difficulties, the number of children aged 11 years

and above included in the survey were relatively small, resulting in high standard errors for prevalence estimates. The Victorian children sampled were not necessarily representative of all primary school children, with all 12 year-old children selected being recipients of Commonwealth Government health concession cards. As a consequence, any tables in this report that include reference to age 12 do not include data from Victoria.

State	Ratio	Days of birth	Comments for 1993 collection
NSW	1:16	3rd or 30th	January–December
Vic	1:8	Systematic	Insufficient data for children aged 12+ yrs
Qld	1:1 Townsville	1st to 31st	January–December
Qld	1:5 Rest of Qld	1st to 6th	January–December
SA	1:12 Metropolitan	13th, 30th, 31st	January–December
SA	1:5 Rest of SA	13th, 26th to 31st	January–December
WA	1:12.5	29th, 30th, 31st	January–December
Tas	1:2.5	Systematic	January–December
NT	1:1.9 Darwin	1st to 16th	January–December
NT	1:1 Rest of NT	1st to 31st	January–December
ACT	1:1.9	1st to 16th	January–December

Data items

Data items in the Child Dental Health Survey are collected at the time of routine clinical examinations conducted by dental therapists and dentists. The recorded characteristics of sampled children consists of demographic information, including the child's age, sex and country of birth (both of child and mother). The country of birth, and the Aboriginality of both patient and mother, are considered to be two items essential to a health monitoring survey (*Health Targets and Implementation Committee*, 1988). Country of birth categories have been derived from those employed by the Australian Bureau of Statistics, in order to ensure the comparability of data obtained from this Survey to other sources, such as the Census. Maternal status was chosen as the preferred parental data item. Country of birth data items are not yet, however, recorded universally by each State or Territory. The data reported here have been obtained from Northern Territory, New South Wales and South Australia. The analysis of variations in health status, with particular regard to variations by Aboriginality, have been pursued in other analyses and are not reported here. (See *Australia's Health*, 1992.) Service provision information includes the date of current and previous examination (if the child previously had been examined within the School Dental Service) and is dealt with in detail within State and Territory-specific reports.

The dental health status of sampled children covers four areas listed below:

- 1) Deciduous caries experience is recorded as the number of deciduous teeth which are decayed, missing because of dental caries, or filled because of dental caries, and is based on the coding scheme of Palmer *et al* (1984).
- 2) Permanent caries experience is recorded as the number of permanent teeth which are decayed, missing because of dental caries, or filled because of dental caries, and is based on the WHO protocol (WHO, 1987).

- 3) Immediate treatment needs are designated if, in the opinion of the examiner, the child has, or is likely to develop within four weeks, pain, infection or a life-threatening condition (WHO, 1987). This data item was introduced in most States and Territories in 1990.
- 4) Fissure sealants are recorded as the number of teeth, otherwise sound and not restored, which have a fissure sealant. This data item was introduced in most States and Territories in 1989.

Some data items are not collected uniformly among States and Territories. Consequently, some of the tables in this report refer only to specific States and Territories, where indicated in the tables.

The diagnostic criteria employed are based on the clinical judgement of the examining dental therapist or dentist. They follow written criteria for the data items described above; however, there are no formal sessions of calibration or instruction in diagnosis undertaken for the purpose of the Survey, and there are no repeat examinations for the purpose of assessing inter- or intra-examiner reliability.

Data analysis

National data contained in this report consist of counts, means and percentages which have been weighted to represent the relevant State/Territory-specific population of children aged 5–15 years. The weighting procedure is necessary, since the National sample is stratified by State/Territory to provide equivalent numbers of cases in each jurisdiction. Unweighted estimates would be over-represented by children from less populous States/Territories and under-represented by those from more populous jurisdictions.

The method follows standard procedures for weighting stratified samples using external data sources (Foreman, 1991). State/Territory estimates (ABS, 1994) of the 1993 child population within individual ages are used to provide numerators for weights which are divided by the age-specific number of cases in the sample from respective States. Hence, observations from more populous States achieve relatively greater weight. However, the stratum-specific weights are further divided by the national estimated population and total sample size to achieve numerical equivalence between the weighted sample and the original number of processed records.

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.

Administration of the Survey

The Child Dental Health Survey has been conducted since 1977. Between 1977 and 1988 it was managed centrally by the Commonwealth Department of Health. In 1989 responsibility for the national data collection was transferred to the Australian Institute of Health's Dental Statistics and Research Unit at The University of Adelaide.

Description of national findings

Table 1: Number in sample and estimated resident population

There was a total of 111,111 children aged between 5 and 15 years inclusive reported for the 1993 calendar year. Children aged 4 years or less and those aged 16 years or more were excluded from this sample, as the small numbers of children receiving care in these age groups across Australia results in less reliability of computed statistics for those ages. Furthermore, children in those ages are outside the main target group of many of the School Dental Services, and it is likely that they have some special characteristics which make them less representative of their respective age groups within the Australian population.

The effects of the statistical weighting procedure can be appreciated from examining Table 1. The relatively large numbers of reported cases from Queensland, Tasmania and the Northern Territory receive relatively lower weights compared with other States and Territories. The weighted cases, which are used for estimates listed in subsequent tables, therefore represent smaller numbers of children from those three States. The national sample, consequently, is representative of the populations of all States and Territories, rather than the number of reported cases.

Table 2: Country of birth (including Aboriginality) – SA, NSW and NT

Information about country of birth and Aboriginality was available from South Australia, New South Wales, Brisbane and Townsville in Queensland, and the Northern Territory where 92.5 per cent of children were Australian born (including Aboriginal, Torres Strait Islander and non-Aboriginal children). This compares with 81.6 per cent of Australian born mothers. Southern Europe, the Middle East, United Kingdom and Ireland, and South East Asia were the other main countries of birth among mothers, although none of them exceeded 5 per cent. The distribution of children is similar to the figure of 91.2 per cent Australian born reported for the Australian population aged 5–14 years (ABS, 1989). The sample has a larger percentage of Aboriginal/Torres Strait Islander children compared with the 1986 Census estimate of 1.8 per cent (ABS, 1986). However it should be noted that the survey data were recorded in NSW, NT and South Australia which have substantial Aboriginal populations. Furthermore, the 1986 census may have under-enumerated Aboriginal and Torres Strait Islander people.

Table 3: Deciduous teeth: age-specific caries experience

Total caries experience in the deciduous dentition is expressed as the mean dmft and varied from 1.76 to 2.15 among 5 to 9 year-olds. The noticeable decline among 9 and 10 year-olds is a natural consequence of exfoliation of deciduous teeth. There was a greater amount of variation in the mean number of decayed deciduous teeth decreasing from 1.33 among 5 year-olds to 0.68 among 9 year-olds. As a consequence of both trends, the d/dmft ratio was highest among younger children, and declined to approximately 33 per cent by the age of 10. The percentage of children with no deciduous (dmft=0) caries mirrored the age variations in mean dmft by reducing across the age range 5 to 9 years.

The patterns suggest that children enter their school years with moderate caries experience in the deciduous dentition – a large proportion of it manifested as untreated decay. The d/dmft ratio decreased up to the age of 10, undoubtedly reflecting the effectiveness of the School Dental Services in restoring decayed teeth. It is noteworthy that the mean number of decayed teeth exceeded 0.60 through to 9 years, despite the relative constancy of mean dmft. This may suggest that much of the untreated decay occurred in previously filled teeth. However there could be more complex interactions with tooth exfoliation and rates of caries progression which influence the pattern of deciduous caries.

Table 4: Permanent teeth: age-specific caries experience

The mean numbers of decayed permanent teeth and DMFT were smaller than the corresponding means for deciduous teeth across the range of 5 to 10 years. In addition, the means for permanent teeth continued to increase among older ages. It is noteworthy that over 66 per cent of children aged 10 years or less had no caries experience (DMFT=0), and even by the end of their primary school years, 55.8 per cent of 12 year-olds had no permanent caries experience.

It is necessary to be cautious in drawing inferences from age related trends – particularly among those aged over 12 years. In most States and Territories, access to School Dental Services for those older children tends to be restricted in comparison with access for younger children. Often the older children have special eligibility criteria, with the consequence that they may be less representative of the respective age groups within the Australian population than is the case for younger children reported in Table 4.

Table 5: All teeth: age-specific caries prevalence

This table combines components of caries experience from the deciduous and permanent dentitions to provide an indicator of the total burden of disease among children receiving care within School Dental Services.

Untreated decay (d+D of 1 or more) in the combined deciduous and permanent dentitions existed for between 27.3 and 40.7 per cent of children in the age range 5 to 12 years. The greatest likelihood of untreated decay was observed among 9 year-olds (where only 59.3 per cent had d+D=0), although the greatest intensity of decay occurred in the youngest ages. For example, 14.1 per cent of 5 year-olds had 4 or more teeth with untreated decay. Based on observations from previous tables, the greatest contribution among younger children came from deciduous teeth.

Missing teeth were relatively uncommon among children aged 5 to 12 years. Both the percentage of children with no fillings (f+F=0) or caries experience (dmft+DMFT=0) showed no stable pattern across the age range contained in Table 5. The latter figure demonstrates among the key age range of 5 to 12 year-olds that one third or more of children have no caries experience in either dentition.

Table 6: Fissure sealants: age-specific prevalence

The mean number of fissure sealants was substantial among those aged 7 years or more, and through to 12 year-olds it exceeded the mean number of decayed permanent teeth (Table 4). Children with permanent caries experience (DMFT=1+) had a greater likelihood of sealants than children with no permanent caries experience (DMFT=0). For example, 28.0 per cent of 12 year-old children with DMFT=1+ had fissure sealants compared with 23.5 among those with DMFT=0. This should be interpreted as a tendency towards preferential provision of fissure sealants to children deemed to have a greater likelihood of dental caries.

Table 7: Immediate treatment needs: age-specific distribution

Immediate treatment (within a period of four weeks) was not recorded in Victoria or Western Australia in 1993. Consequently, the estimates may not be representative of all children. The percentage was greatest for younger children, and smallest (8.2 per cent) for 12 year-olds. There were correspondingly high levels of caries experience among children with immediate treatment needs. Age-specific means for dmft and DMFT tended to be approximately twice the national averages listed in previous tables. For example, 5 year-olds with immediate treatment needs had a mean dmft of 4.93 (compared with 1.76 in Table 3) and 49.8 per cent had d+D=4+ (compared with 14.1 per cent in Table 5).

It should be emphasized that the frequency of immediate treatment reflects both the accumulated amount of dental disease and the methods of targeting and delivering School Dental Services. For example, clinics which provide care for a relatively small proportion of a population, and which assign priority to treating those with symptoms, will almost certainly record higher percentages of immediate treatment needs than other clinics which have universal coverage of all children on a constant recall basis.

Perhaps the most important interpretation from Table 7 is that a sub-group of children with a substantial burden of dental caries can be identified within School Dental Services. Their state of poor dental health constitutes a useful contrast with the previous observation that approximately two thirds of 5 to 12 year-olds have no caries experience at all.

Table 8: Interstate comparison: 5–6 year-old dmft

This represents a standard age group (cited, for example, within World Health Organization publications) and is useful for School Dental Services since it represents, predominantly, the dental health status of children new to School Dental Services. There exists a 73 per cent difference between the lowest mean dmft (Australian Capital Territory, mean=1.22) and highest mean dmft (New South Wales, mean=2.11). There are historical differences in caries prevalence as well as marked variations in population density, demography and levels of water fluoridation between the two which are significant. As well, there are differences in organization and delivery of both School Dental Services between these two jurisdictions, and all of these influential factors affect other State/Territory comparisons.

There are other notable characteristics of the statistics contained in Table 8. In general, the mean number of deciduous teeth with untreated decay is correlated with the mean dmft – a relationship which may not be surprising but which need not necessarily exist. In addition,

the variation in percentage caries free ($dmft=0$), while representing the converse of mean $dmft$, shows less substantial variation (from 51.9 to 64.6 per cent) than the 1.7 times difference in mean $dmft$. In other words, while less than one half of 5 to 6 year-olds in all jurisdictions have caries experience, the amount of accumulated disease (mean $dmft$) is relatively variable across jurisdictions.

Table 9: Interstate comparison: 12 year-old DMFT

There was substantial variation in the mean DMFT scores between States, with the highest mean score being twice that of the lowest (1.44 in Queensland, 0.64 in South Australia). This was similar to the variation observed for deciduous teeth. In the case of permanent teeth there was again some correlation between mean DMFT and mean number of decayed teeth, although this was less consistent than the case for deciduous teeth. Consequently, there was quite large variation in the ratio of $D/DMFT$ (17.8 per cent in South Australia to 46.0 per cent in New South Wales).

The Australian Capital Territory stands out with the lowest mean $dmft$ and second lowest mean DMFT. In contrast, Queensland has the second highest mean $dmft$ and highest mean DMFT.

Table 10: All teeth: Age-standardized caries experience

Age-standardized data are used for this table in order to bring together data from all ages in all jurisdictions. This is useful in the event that any age-specific statistics (for example, 5 to 6 year-olds) provide a somewhat unrepresentative picture of conditions in a specific State or Territory. The purpose of age-standardization is to adjust among States for possible differences in the proportion of specific age groups, which is important because of the age-relatedness of most dental caries measures.

This table adds further dimensions to the extent of interstate variation in caries experience. For example, there are quite profound differences in percentage of children with 4 or more decayed teeth ($d+D=4+$) despite relative consistency in percentage of children with no caries experience ($dmft+DMFT=0$). The most populous States of New South Wales and Victoria have the largest levels of untreated decay ($d+D$). As noted from previous tables, that appears to arise from the relatively high levels of decayed teeth observable in deciduous teeth among children in their early school years. Consistent with Tables 8 and 9, the percentage of children with no caries experience ($dmft+DMFT=0$) was highest in the ACT (49.6%) and lowest in Queensland (39.5%).

Table 11: National summary

Age-standardized data are used for this table in order to bring together data from all ages in all jurisdictions.

In comparison with previous tables, the data in Table 11 reveal different profiles of caries experience among the States and territories. Victoria and Queensland appear to have the highest levels of caries experience for deciduous caries. Queensland, New South Wales and

Western Australia have the highest levels for permanent caries experience. This is reasonably consistent with Tables 8 and 9, where States with high standardized means had relatively high mean dmft and DMFT values. It should be noted that the DMFT figure for Victoria is artificially low, due to the exclusion of children aged 11 years and over.

Figure 1: Percentage of children with dmft=0, DMFT=0 and d+D=4+

This figure uses Australia-wide data to describe the combined dmft and DMFT indices and their components for individual (year of birth) ages. It should be noted that the rate of decline across ages in the percentage of children free of caries in the deciduous dentition is attenuated by the pattern of exfoliation of deciduous teeth, which effectively reduces the number of teeth at risk of caries.

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For further information contact:

Mr Michael Davies
AIHW Dental Statistics and Research Unit
The University of Adelaide
AUSTRALIA 5005

Phone: (08) 303-4051, 303-4045 or 303-5027
Fax: (08) 303-3444

TABLE 1: NUMBER IN SAMPLE AND ESTIMATED RESIDENT POPULATION

Data for the Child Dental Health Survey are collected from a stratified random sample of children in all Australian States and Territories. Within each State or Territory, sampling involves selection of a constant proportion of children for whom date of birth is known by including only those children born on particular dates. Data presented here are weighted by the estimated resident population in each age and State/Territory stratum (Australian Bureau of Statistics, 1994) to permit the calculation of Australia-wide prevalence estimates. The number of weighted cases excludes cases outside the age range of 5 to 15 years inclusive.

State/Territory: **Australia**

Data for 1993

Date of report: 4th September 1995

State	Number of processed cases	Estimated resident population	Weighted cases
NSW	12939	927242.03	24256.37
Vic	8147	676259.77	14482.30
Qld	39686	484958.23	12676.32
SA	4649	218239.83	5706.85
WA	12044	268959.73	7038.22
Tas	14184	77301.20	2021.88
NT	12666	31015.20	808.76
ACT	6796	49220.63	1287.15

TABLE 2: COUNTRY OF BIRTH (INCLUDING ABORIGINALITY)

The country of birth of children is determined from information concerning birthplace of the child and mother. The number and percentage of children in each group is provided in this table. These data relate to South Australia, New South Wales, Brisbane and Townsville in Queensland and the Northern Territory.

State/Territory: SA, NSW and NT

Data for 1993

Date of report: 4th September 1995

COUNTRY OF BIRTH	CHILDREN		MOTHERS	
	Number ¹	%	Number	%
Australia (non-Aboriginal)	21226	89.4	18593	78.6
Australia (Aboriginal or TSI)	726	3.1	698	3.0
United Kingdom and Ireland	232	1.0	813	3.4
Other English speaking	214	0.9	587	2.5
Southern Europe	99	0.4	572	2.4
Other Europe	88	0.4	293	1.2
Middle East	169	0.7	588	2.5
South East Asia	397	1.7	640	2.7
Other Asia	340	1.4	501	2.1
Other	240	1.0	375	1.6
Total	23731	100.0	23661	100.0

¹ Data are weighted to reflect the sampling scheme by correcting for the over-representation in the sample of children with an unknown date of birth. Data relating to second or subsequent examinations of children within this reporting period are eliminated.

TABLE 3: DECIDUOUS TEETH: AGE-SPECIFIC CARIES EXPERIENCE¹

This table uses Australia-wide 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.

State/Territory: **Australia**

Data for 1993

Date of report: 4th September 1995

Age (years)	Number of children in sample ²	decayed		dmft		d/dmft	Children with dmft=0
		mean	sd	mean	sd	%	%
5	6532	1.33	2.50	1.76	3.02	77.8	57.9
6	6610	1.06	2.03	1.90	2.93	59.0	53.2
7	6538	0.86	1.67	2.01	2.81	45.2	49.2
8	6458	0.74	1.41	2.15	2.72	37.2	43.5
9	6324	0.68	1.28	2.13	2.59	35.2	41.9
10	6301	0.52	1.08	1.73	2.31	32.6	47.4

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

² Data relating to second or subsequent examinations of children within this reporting period are eliminated. Weighted data are presented.

TABLE 4: PERMANENT TEETH: AGE-SPECIFIC CARIES EXPERIENCE¹

This table uses Australia-wide 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. Data from Victoria for children aged 11 and above have been excluded due to high standard errors.

State/Territory: **Australia**

Data for 1993

Date of report: 4th September 1995

Age (years)	Number of children in sample ²	DECAYED		DMFT		D/DMFT	Children with DMFT=0
		mean	sd	mean	sd	%	%
5	6532	0.02	0.22	0.02	0.24	89.1	98.6
6	6610	0.07	0.36	0.08	0.40	86.3	95.2
7	6538	0.16	0.55	0.22	0.74	74.9	87.7
8	6458	0.21	0.64	0.36	0.86	60.0	79.7
9	6324	0.25	0.70	0.51	1.03	50.8	73.3
10	6301	0.27	0.73	0.66	1.17	42.1	66.6
11	6379	0.35	0.89	0.90	1.49	38.0	60.3
12	4780	0.39	0.95	1.10	1.67	34.6	55.8
13	4884	0.61	1.51	1.61	2.31	32.8	45.5
14	5024	0.57	1.50	1.94	2.82	28.5	43.9
15	5187	0.93	2.36	2.61	3.22	31.8	35.5

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

² Data relating to second or subsequent examinations of children within this reporting period are eliminated. Weighted data are presented.

TABLE 5: ALL TEETH: AGE-SPECIFIC CARIES PREVALENCE¹

This table uses Australia-wide 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. Data from Victoria for children aged 11 and above have been excluded due to high standard errors.

State/Territory: **Australia**

Data for 1993

Date of report: 4th September 1995

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
5	6529	62.3	10.7	8.2	4.6	14.1	98.3	86.6	57.5
6	6607	62.6	12.7	8.3	5.1	11.3	97.1	74.1	52.0
7	6536	62.1	14.5	9.1	5.3	9.1	96.2	63.3	46.1
8	6455	60.6	16.9	9.7	4.6	8.3	95.9	53.8	38.7
9	6321	59.3	18.3	10.1	5.1	7.2	95.8	50.0	34.9
10	6298	62.7	18.0	9.3	4.6	5.4	96.3	48.8	35.6
11	6375	66.2	16.4	9.1	4.0	4.2	97.3	53.2	40.4
12	4774	72.7	12.9	7.1	3.9	3.5	98.1	57.9	45.6
13	4876	71.7	13.1	7.1	2.8	5.3	97.0	54.6	41.8
14	5024	71.0	15.9	6.3	1.9	4.9	96.3	52.9	41.3
15	5127	68.7	14.3	4.3	3.5	9.2	94.2	50.3	35.6

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 relating to second or subsequent examinations of children within this reporting period are eliminated. Weighted data are presented.

TABLE 6: FISSURE SEALANTS: AGE-SPECIFIC PREVALENCE¹

This table uses Australia-wide 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 12 month period. Data from Victoria for children aged 11 and above have been excluded due to high standard errors.

State/Territory: **Australia**

Data for 1993

Date of report: 4th September 1995

Age (years)	Number of children in sample ²	Number of sealants		CHILDREN WITH DMFT=0		CHILDREN WITH DMFT=1+	
		mean	sd	number of children	% with fissure sealants	number of children	% with fissure sealants
6	6604	0.09	0.77	6289	2.4	315	11.2
7	6533	0.32	1.22	5731	9.7	802	19.3
8	6453	0.58	1.52	5142	18.4	1311	25.7
9	6320	0.73	1.66	4633	23.1	1687	29.1
10	6297	0.80	1.60	4198	25.8	2099	32.7
11	6373	0.82	1.62	3845	24.5	2528	33.5
12	4774	0.72	1.57	2665	23.5	2109	28.0
13	4876	0.76	1.63	2218	22.4	2658	28.8
14	5018	0.99	2.06	2203	24.4	2814	34.4
15	5127	0.87	1.75	1839	21.7	3287	30.7

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

² Data relating to second or subsequent examinations of children within this reporting period are eliminated. Weighted data are presented.

TABLE 7: IMMEDIATE TREATMENT NEEDS: AGE-SPECIFIC DISTRIBUTION¹

This table, based on Australia-wide 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 12 month period. These data do not include Western Australia and Victoria.

State/Territory: **Australia** (excluding Western Australia and Victoria)

Data for 1993

Date of report: 4th September 1995

CHILDREN IN NEED OF IMMEDIATE TREATMENT												
Age (years)	Number of children in sample ²	% of all children	dmft		DMFT		% with d+D=					
			No.	mean	sd	mean	sd	0	1	2	3	4+
5	6532	499	13.9	4.93	3.87	0.03	0.29	4.8	19.6	16.4	9.4	49.8
6	6610	413	11.3	4.59	3.59	0.20	0.69	12.6	16.3	17.3	12.4	41.4
7	6538	402	11.3	4.39	3.24	0.42	0.93	11.4	19.2	20.2	13.8	35.4
8	6458	382	11.0	3.86	2.84	0.62	1.05	13.3	24.5	20.7	8.3	33.3
9	6324	409	12.1	3.64	2.69	0.89	1.38	12.5	27.8	20.3	14.4	24.9
10	6301	319	9.4	2.97	2.63	1.11	1.47	21.7	30.4	14.8	8.4	24.8
11	6379	308	9.1	1.70	2.29	1.77	2.02	19.1	28.7	17.6	10.0	24.5
12	4780	282	8.2	1.39	2.29	2.25	2.01	15.7	23.0	17.5	19.4	24.3
13	4884	329	9.5	0.28	0.93	4.35	3.50	8.4	20.7	23.4	10.3	37.2
14	5024	434	11.9	0.02	0.15	4.80	5.11	14.7	41.8	19.0	2.5	22.0
15	5187	493	12.8	0.01	0.15	6.22	5.57	9.7	20.3	10.2	0.4	59.4

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

² Data relating to second or subsequent examinations of children within this reporting period are eliminated. Weighted data are presented.

TABLE 8: INTERSTATE COMPARISON: FIVE-SIX YEAR-OLD dmft¹

This table presents the age-standardized dmft for 5 and 6 year-old children for each State and Territory in Australia. The table also presents the decayed component as a percentage of the dmft index, and the percentage of children with a dmft score of 0.

State/Territory: **Australia**

Data for 1993

Date of report: 4th September 1995

State	Number of children in sample ²	decayed		dmft		d/dmft	Children with dmft=0
		mean	sd	mean	sd	%	%
NSW	4468	1.57	2.68	2.11	3.21	76.4	51.9
Vic	3230	1.20	2.26	1.71	2.91	73.3	58.2
Qld	2302	1.11	2.11	2.03	3.12	59.3	52.7
SA	1070	0.59	1.35	1.49	2.64	47.6	59.4
WA	1313	0.76	1.66	1.38	2.46	56.9	60.5
Tas	374	0.70	1.49	1.24	2.20	59.8	61.3
NT	158	1.17	2.22	1.77	2.81	66.4	53.9
ACT	228	0.72	1.65	1.22	2.32	59.5	64.6
Australia	13142	1.19	2.28	1.83	2.98	67.8	55.6

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

² Data relating to second or subsequent examinations of children within this reporting period are eliminated. Weighted data are presented.

TABLE 9: INTERSTATE COMPARISON: 12 YEAR-OLD DMFT¹

This table presents the DMFT for 12 year-old children in each State and Territory in Australia. The table also presents the D component of the DMFT index, D as a percentage of DMFT, and the percentage of children with a DMFT score of 0. Data from Victoria have been excluded due to high standard errors.

State/Territory: **Australia**

Data for 1993

Date of report: 4th September 1995

State	Number of children in sample ²	Decayed		DMFT		D/DMFT	Children with DMFT=0
		mean	sd	mean	sd	%	%
NSW	2148	0.51	1.09	1.04	1.59	46.0	58.3
Qld	1136	0.40	0.96	1.44	1.94	27.4	47.9
SA	504	0.11	0.40	0.64	1.09	17.8	65.5
WA	627	0.31	0.76	1.20	1.82	27.8	51.1
Tas	177	0.25	0.66	0.96	1.51	28.5	57.8
NT	69	0.31	0.90	0.85	1.46	33.7	62.1
ACT	119	0.18	0.64	0.77	1.30	21.5	62.8
Australia	4780	0.39	0.95	1.10	1.67	34.6	55.8

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

² Data relating to second or subsequent examinations of children within this reporting period are eliminated. Weighted data are presented.

TABLE 10: ALL TEETH: AGE-STANDARDISED CARIES EXPERIENCE¹

This table presents measures of the distribution of decayed, missing and filled teeth for each State and Territory in Australia. Indicated are the percentages of children with d+D scores of 0, 1, 2, 3 and 4 or more. Also listed are the percentages of children with m+M of 0, f+F of 0 and dmft+DMFT of 0.

The number of children has been standardized using the Australian Estimated Populations for each State and Territory for ages between 5 and 12 years inclusive. Data from Victoria for children aged 11 and above have been excluded due to high standard errors.

State/Territory: **Australia**

Data for 1993

Date of report: 4th September 1995

State	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
NSW	24256	61.4	14.2	8.6	4.7	11.1	97.4	64.0	43.1
Vic	11222	57.3	15.3	10.9	6.3	10.1	93.6	62.3	42.1
Qld	12592	66.2	17.0	7.7	3.5	5.5	97.1	50.7	39.5
SA	5707	78.8	12.8	4.8	2.0	1.7	98.5	55.3	47.2
WA	7038	72.0	15.4	6.8	2.8	3.0	95.7	55.8	43.7
Tas	2022	70.9	15.1	7.4	3.3	3.3	98.0	58.3	45.9
NT	809	66.9	14.5	8.0	3.5	7.3	95.0	66.2	46.7
ACT	1287	74.5	12.7	6.8	3.3	2.7	98.7	59.5	49.6
Australia	64933	64.9	14.9	8.2	4.2	7.7	96.6	59.2	42.9

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 relating to second or subsequent examinations of children within this reporting period are eliminated. Weighted data are presented.

TABLE 11: NATIONAL SUMMARY¹

This table presents the age-standardized dmft and DMFT scores for each State and Territory in Australia.

The number of children has been standardized using the Australian Estimated Populations for each State and Territory for children aged between 5 and 12 years inclusive. Data from Victoria for children aged 11 and above have been excluded due to high standard errors.

State/Territory: **Australia**

Data for 1993

Date of report: 4th September 1995

State	Number of children in sample ²	dmft			DMFT			d+D=0 %
		mean	sd	dmft=0 %	mean	sd	DMFT=0 %	
NSW	24256	1.21	2.33	66.4	0.96	2.09	68.7	61.4
Vic	11222	1.88	2.71	50.3	0.50	1.13	76.0	57.3
Qld	12676	1.52	2.59	61.4	1.00	1.90	65.0	66.2
SA	5707	1.13	2.15	66.0	0.56	1.21	73.7	78.8
WA	7038	0.94	1.88	68.4	0.89	1.88	67.1	72.0
Tas	2022	0.98	1.93	68.2	0.75	1.50	68.7	70.9
NT	809	1.12	2.13	65.9	0.62	1.35	73.5	66.9
ACT	1287	0.89	1.81	69.6	0.63	1.35	71.9	74.5
Australia	65018	1.34	2.39	62.9	0.83	1.80	69.6	64.9

*Excludes children aged 11-12 years.

¹ Legend: dmft - decayed, missing or filled deciduous teeth
DMFT - decayed, missing or filled permanent teeth
d+D - decayed deciduous teeth plus decayed permanent teeth

² Data relating to second or subsequent examinations of children within this reporting period are eliminated. Weighted data are presented.

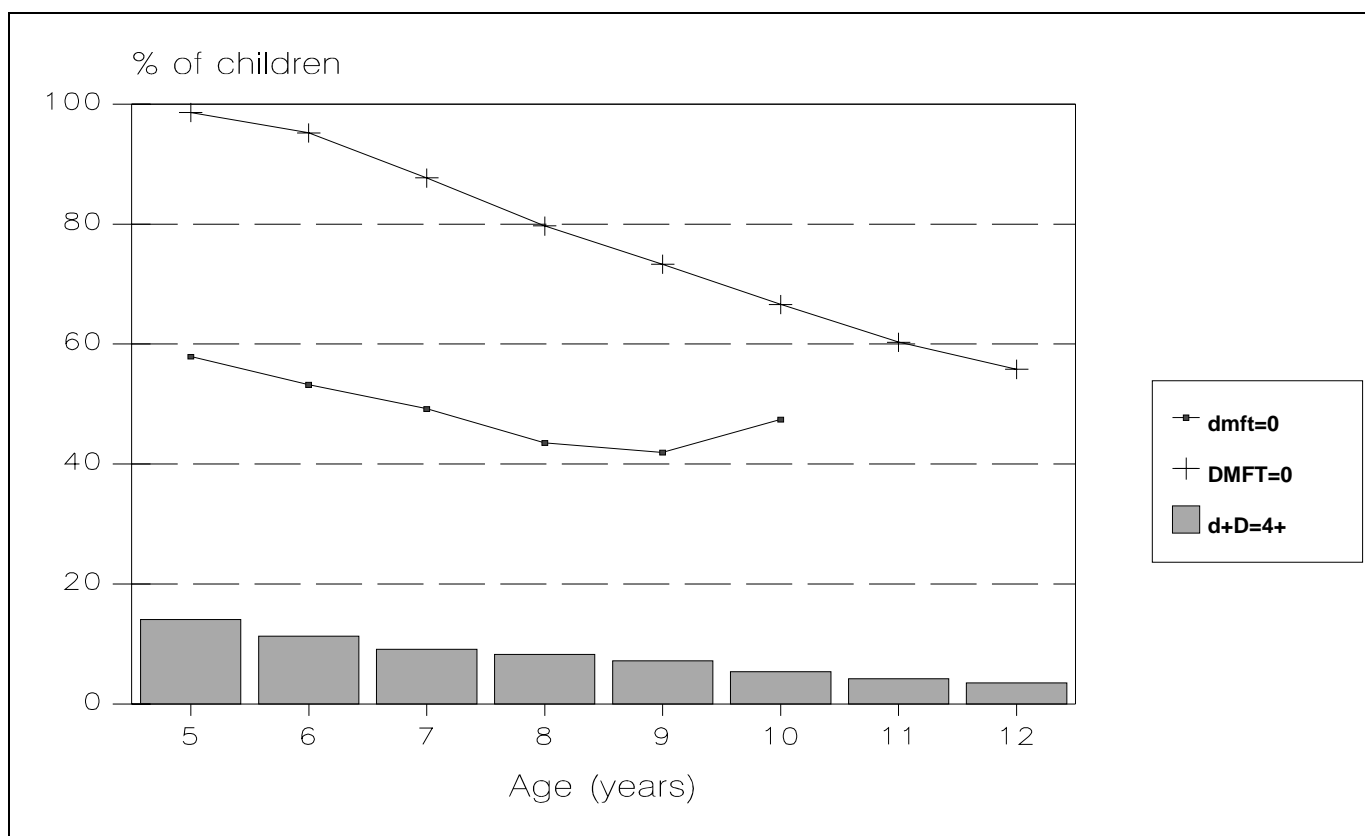
FIGURE 1: PERCENTAGE OF CHILDREN WITH dmft=0, DMFT=0 and d+D=4+¹

This figure uses Australia-wide 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 excluded². It should be noted that the rate of decline across ages in the percentage of children free of caries in deciduous dentition is attenuated by the pattern of exfoliation of deciduous teeth, which effectively reduces the number of teeth at risk of caries.

State/Territory: **Australia**

Data for period January-December 1993

Date of report: 4th September 1995



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

² Data relating to second or subsequent examinations of children within this reporting period are eliminated. Weighted data are presented.