



The Child Dental Health Survey Queensland January - December 1991

by

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The AIHW Dental Statistics and Research Unit (DSRU) is an external unit of the Australian Institute of Health and Welfare, and was established in 1988 at The University of Adelaide. The DSRU was funded to improve the range and quality of dental statistics and research on the dental workforce, dental health status, dental practices and use of dental services.

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THE CHILD DENTAL HEALTH SURVEY - QUEENSLAND 1991

Background to the Child Dental Health Survey

The Survey, originally established in 1977 by the (then) Commonwealth Department of Health, is intended to provide time-series data for the purpose of monitoring the dental health status of primary school children. The establishment of the Survey coincided with the development of the Australian School Dental Scheme (ASDS), a government-funded program providing dental care for school children. Implicit within the original goals of the Child Dental Health Survey was the collection of routine data from among all patients of the ASDS which was administered through each of the State and Territory health authorities. There was no attempt to obtain information about those children not-enrolled in the ASDS. From the inception of the Survey, data were collected by School Dental Service staff and processed by the Commonwealth Department of Health in Canberra.

The Survey has been maintained annually since 1977. Following some changes to the Survey procedures by individual State and Territory health authorities (principally in the methods of sampling, but also including some alterations to data items), a redesigned Survey was developed in 1988. At that time, responsibility for the management and processing of the Survey was passed to Dental Statistics and Research Unit (DSRU), an external unit of the (then) Australian Institute of Health. In the process of transferring responsibility for the Survey, State and Territory health authorities were encouraged to adopt some limited changes to the types of data collected, and to move towards sampling of a proportion of children. Those changes were adopted uniformly by the end of 1990.

Scope and aims of the Survey

The redesigned Child Dental Health Survey provides dental health data concerning the population of persons enrolled in School Dental Services throughout the States and Territories. There are four aims of the Survey.

- 1) To maintain the national time-series of statistics providing annual estimates of children's dental health status in Australian States and Territories.
- 2) To examine temporal changes in caries experience among Australian children.
- 3) To examine the distribution of dental health status by geographic location and demographic factors.
- 4) To identify high risk groups according to geographic location and demographic status.

Survey methods

Data for the Child Dental Health Survey were collected during the 1991 calendar year from a sample of patients of the Queensland School Dental Service by dental therapists and dentists. They transcribed data items from routine clinical records onto Optical Mark Reader data sheets which were processed and edited. During the first half of 1991, the sampling and data recording procedures established at the start of 1990 were used throughout the State. Between July and December, an extension to the established data collection was adopted in

Brisbane and Townsville. The extension was part of the Child Fluoride Study, a National Health and Medical Research Council supported investigation of the role of fluorides in children's dental health. Information from the established Child Dental Health Survey and the new Child Fluoride Study was combined to create common data items and formats.

Processing and editing of all data forms was performed by the Queensland Department of Health. Computer diskettes containing unit record data were forwarded to the DSRU in Adelaide for analysis. Analyses were undertaken to compute summary statistics describing caries experience, frequency of fissure sealants, immediate treatment needs and children's history of School Dental Service examinations among age groups.

Source of subjects and sampling

Between January and June, children throughout Queensland were sampled at a ratio of 1:5 by selecting those whose date of birth fell on the first six days of any month. All children with an unknown date of birth also were sampled. Sampling occurred at the time of routine clinical examinations which occurred prior to the commencement of any course of care.

At the beginning of July, the sampling procedure was changed in Townsville in order to obtain data from a greater number of children for the purpose of the Child Fluoride Study. Sampling was increased to full enumeration of all children receiving examinations in Townsville. However children in Brisbane, from whom data were also collected for the Child Fluoride Study, continued to be sampled at the ratio of 1:5, and that ratio was maintained in areas other than Brisbane and Townsville.

Data items

Core data items for the established Child Dental Health Survey were collected in a uniform manner throughout Queensland during the first six months of the year. Demographic and service provision data items included the child's age, sex and the date of the current and previous examination. Provision was made for recording country of birth and Aboriginality of each child and mother, although the items were not recorded in Queensland during 1991.

Dental health status data items included a count of the number of teeth which were decayed, missing (because of dental caries) or filled (because of dental caries). Separate counts were made of deciduous and permanent teeth. A count of the number of permanent teeth with fissure sealants (and which were not decayed or filled) also was made. An additional data item was marked to indicate if the child had a need for immediate treatment, defined as the presence of oral pain or infection, or the likely occurrence of oral pain or infection within four weeks. This would include children requiring treatment for existing pain, dental abscesses, grossly decayed teeth with pulp exposure, avulsed or fractured teeth, or life threatening conditions. All indices follow recommendations made by World Health Organization (1987) and by Palmer *et al* (1984) concerning epidemiological recording of dental conditions.

A survey guide was issued to all clinics explaining the conventions for data recording. However, there were no formal procedures for training or calibration in the clinical procedures for detection of caries experience. Instead, clinical staff used their own clinical judgement when making decisions about the presence or absence of decayed, missing, filled or fissure sealed teeth.

In Townsville and Brisbane, the data items were changed to allow for more detailed recording of caries experience from July through to December. Specifically, the individual tooth surfaces were coded to indicate if they were decayed, filled or fissure sealed. In

addition, the specific teeth were denoted as present, unerupted or missing due to caries. This method of recording provided more data than the simple count of affected teeth, and was adopted for the purpose of the Child Fluoride Study. However, for the current report the detailed data were reduced to the core data items used in the established Child Dental Health Survey. A computer algorithm was used to assign a single score to each tooth present in the mouth after evaluating the status of all tooth surfaces. Specifically:

- a) a tooth was scored as decayed if any surface was coded as decayed, even if other surfaces of the tooth were filled or fissure sealed;
- b) a tooth with no decay was coded as filled if any surface was coded as filled, even if other surfaces of the tooth were fissure sealed. Fillings referred to restorations placed because of dental caries;
- c) a tooth with no decay and with no fillings (placed because of dental caries) was coded as sealed if any surface had a fissure sealant.

This hierarchy conforms with the epidemiological conventions for coding individual teeth. For example, clinical examiners recording the core data items for the Child Dental Health Survey would code a tooth which had both decay and a filling as decayed. A final part of the computer algorithm simply summed the total number of decayed, missing, filled and fissure sealed teeth for each child.

Analyses

Data were analyzed to provide age-specific means and percentages for each dental health index and for periodicity of examinations. Standard deviations were computed for all means. The level of statistical precision for all age-specific estimates was assessed by computing the relative standard error (that is, standard error of the estimate divided by the estimate, and expressed as a percentage). When the relative standard error exceeded 40 per cent, the statistics for that estimate were not printed. This convention follows those used by other authorities, such as the Australian Bureau of Statistics.

A further aspect of the analysis was the weighting of unit records to reflect the sampling procedure. This was necessary because children were sampled using different probabilities of selection. The probability was 1.0 (ie selected by full enumeration) for children with an unknown date of birth throughout the state, and for children in Townsville between July and December. Elsewhere the probability was 0.2 (ie equivalent to the ratio of 1:5). Hence, the weighting process considered the number of children sampled (n_i) and the number of children in the population ($N_i = n_i / [\text{sampling probability}]$) for each of two sampling strata. Two stratum specific weights, w_i , which could be applied to unit record data were computed to avoid inflating the sample size. The following formula was used:

$$w_i = \frac{N_i/n_i}{\sum N_i / \sum n_i}$$

For example, Table 1 contains the total number of sampled individuals receiving an examination during 1991. (Children receiving more than one examination during the year are counted once.) There were $n_1=40,931$ children sampled at the fraction of 0.2, and therefore they represented a population, N_1 of $5 \times n_1=204,655$. There were $n_2=5,693$ children selected using full enumeration, and hence they represented a population, N_2 of 5,693. Application of those figures to the formula above yields a unit record weight, w_1 of 1.108 (rounded) for children sampled at the ratio of 1:5 and 0.222 (rounded) for the other children. Those unit record weights were applied to all statistics computed for Tables 2 to 7. Table 8

deals with a different number of sampled children (since it refers to total number of examinations rather than total number of children examined), and hence slightly different weights were computed using the same formula. All data were processed using SPSS on a Sun mini computer.

The following sections briefly describe each table and provide a simple, summary statement highlighting differences between the 1991 and 1990 findings. However, no formal hypothesis tests have been undertaken, and descriptions of differences between years are intended as a guide to the reader, rather than a formal evaluation of trends.

Purpose of this report

This report is part of the annual series providing descriptive statistics concerning child dental health in Queensland. The report contains tables and figures. 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. The figures combine and summarize information from four of the tables.

Supplementary tables requested by the Queensland Department of Health also have been prepared. They contain region-specific caries experience data for both deciduous and permanent teeth along with further detail of the components of deciduous and permanent caries experience.

Table 1: Demographic composition of the sample

A total number of 46,624 children were sampled during 1991, with 12.2 per cent of them representing children selected by full enumeration. Although not shown in Table 1, the great majority of fully enumerated children (some 5,430) were from Townsville and they were selected in this manner for the Child Fluoride Study described above. The majority of children in the complete sample (some 94.6 per cent) were aged between five and 12 years inclusive. There were very small numbers of children aged less than four or greater than 13 years. Males were represented in slightly greater percentages (51.5 per cent across all ages) than females.

This distribution reflects the age range of primary school children who are the principal target group of the Queensland School Dental Service. However, there are some individual ages (18 years or more) where it would appear that age has been recorded in error. The small numbers of children aged three or less and 14 years or more results in less reliability of computed statistics for those ages. Furthermore, children in those ages are outside the main target group of the School Dental Service, and it is likely that they have some special characteristics which make them less representative of their respective age groups within the Queensland population.

Changes since 1990

The total number of children sampled in 1991 was 43 per cent higher than the preceding year. This was explained only in part by the increased sampling ratio adopted in Townsville from July to December. For example, the number of children sampled at the ratio of 1:5 increased during 1991 by 27 per cent. It was noted in the 1990 Child Dental Health Survey Report that the number of cases in that year was low, and it seems likely that the 1991 Survey has returned to a more realistic level of enumeration. The smaller numbers in the preceding year

appear likely to have been associated with implementation of the new survey procedures during 1990.

In other respects, the percentage age- and sex-distribution did not change substantially in 1991.

Table 3: Deciduous teeth: age-specific prevalence

The mean number of decayed teeth among children aged five to 10 years declined quite consistently with increasing age by more than 70 per cent. In contrast, mean dmft increased by 53 per cent from 1.8 among four year-olds to 2.75 among eight and nine year-olds. Among older children, mean dmft declines, consistent with exfoliation of teeth. As a consequence of these two trends, the d/dmft ratio exceeds 60 per cent among children aged five years or less, and declines to a low of 20 per cent among those aged 10 years or more.

The percentage of children with no caries experience (dmft=0) tends to mirror mean dmft by reducing to a low of 35 per cent among nine year-olds. It is noteworthy that only slightly more than one half of children are free of deciduous caries experience at any individual age in the range of five to 10 years.

Together these distributions suggest that younger children, probably presenting for the first time to the School Dental Service, have a considerable backlog of untreated decay, and that this is managed in later years to achieve a relatively low frequency of untreated decay.

Changes since 1990

Changes in mean number of decayed or dmft teeth were insubstantial between 1990 and 1991, with most age-specific differences in means being less than 0.1. Five year-olds stand out as the single exception, where reductions in the order of 0.2 for mean number of decayed and dmft teeth were observed in 1991. However, this apparent decline was not observed in other ages.

Table 4: Permanent teeth: age-specific prevalence

The mean numbers of decayed permanent teeth and DMFT were smaller than the corresponding means for deciduous teeth across the range of five to 10 years. In addition, the mean number of decayed and DMF teeth increased in a fairly consistent manner across increasing age groups within that range. As a consequence, the percentage of DMFT present as untreated decay (D/DMFT) and the percentage of children caries free in the permanent dentition (DMFT=0) declined substantially across age groups. It is noteworthy that more than 50 per cent of children aged less than 12 years were caries free (DMFT=0).

Among those aged 12 to 14 years, the age-associated increase in mean DMFT was greater than the pattern observed for the younger half of the age range. This pattern suggests either that new caries progression accelerates after the age of 12, or that these older children represent a cohort with a higher historical caries experience. However interpretation of this trend requires caution due to the smaller numbers of children involved. In particular, the estimates for those aged 15 appear to be inconsistent compared with other ages.

Changes since 1990

Changes in the caries experience of permanent teeth generally could be regarded as inconsequential for those aged less than 11 years. The 12 year-old mean DMFT of 1.54 was nine per cent lower than the 1990 figure, and there was an increase in the percentage of 12 year-olds with no caries experience (DMFT=0). In contrast there was an increase (of five per cent) in mean DMFT 13 year-olds, and a decrease in the percentage with no caries experience. In view of these inconsistent patterns of change, it would be unwise to interpret a general temporal effect.

Table 5: All teeth: age-specific prevalence

Untreated decay in the combined deciduous and permanent dentitions ($d+D=1, 2, 3$ or $4+$) existed for between 31 and 41 per cent of children in the age range five to 12 years. The greatest likelihood of untreated decay occurred for six year-olds where 41 per cent had $d+D$ of one or more. The most extensive levels of untreated decay ($d+D=4$ or more) occurred in children aged six years or less.

While more than 95 per cent of children had no deciduous or permanent teeth missing due to caries, smaller percentages avoided fillings, and this was associated with age. There was a reasonably consistent decline in the percentage of children with no caries experience in either deciduous or permanent dentition ($dmft+DMFT=0$), from 53.5 per cent at age five to 28.8 per cent at age nine. The percentage fluctuated around 30 per cent among most older ages, reflecting the pattern of exfoliation of deciduous teeth. This statistic serves to demonstrate that more than one quarter of children at any of the key primary school ages have no experience of dental caries.

Changes since 1990

There were no substantial changes in these statistics between 1990 and 1991 for children in the key age groups of five to 12 years. Individual changes in other ages (for example, among 14 year-olds) need to be interpreted with caution in view of the small numbers of cases and the probable unrepresentative nature of those children.

Table 6: Fissure sealants: age-specific prevalence

Fissure sealants occurred at quite a consistent frequency among children aged seven to 12 years where the mean number of teeth with sealants ranged from 0.22 to 0.31. These means were comparable to the mean number of permanent teeth with untreated decay (mean D) in that age range. The prevalence rate of fissure sealants (percentage of children with one or more sealants) within the same age range varied across a relatively narrow range from 7.7 to 15.1 per cent. Children with some caries experience ($DMFT=1+$) were only slightly more likely to have fissure sealants than those with no caries experience ($DMFT=0$).

Changes since 1990

The mean number of fissure sealants did not differ substantially in 1991. There was a tendency for older children (10 to 12 years) to have a slightly higher probability of sealant application, as indicated by increases of two to four per cent in the percentage with one or more sealants.

Table 7: Immediate treatment needs

Immediate treatment needs were recorded for fewer than four per cent of children in all ages. However, those children clearly had a higher mean dmft, mean DMFT and percentage with four or more decayed teeth in comparison with the overall sample. Those patterns of caries experience support the view that caries constitutes a substantial burden of disease for this small minority of children, and that it presumably contributes to immediate needs for treatment of pain or infection. The highest prevalence rate of immediate treatment needs (3.4 per cent among four year-olds) was observed in the youngest ages and would be consistent with more extensive deciduous caries experience and patterns of utilization (each discussed above) of younger children.

Changes since 1990

The percentage of children with immediate treatment needs did not change substantially during 1991. Moreover, the general pattern of very high levels of caries experience among those children was repeated in 1991.

Table 8: School Dental Service examinations

Table 8 refers to the total number of examinations conducted during 1991. Since individuals may have received more than one examination during the year, the number of children in the sample for this table is greater than the numbers present in preceding tables, where subsequent examinations of children in the year were excluded. The percentage of children with no previous examination in the School Dental Service was greatest among four year-olds, and reduced to 5 per cent or less for children aged seven years or more. Those percentages were mirrored approximately by the percentage with a previous examination, although relatively greater percentages of younger children had an unknown previous examination status.

Among children with a previous examination, over one half within most ages had received examinations within a 7 to 12 month period. That time interval was the most frequent of the four intervals contained in the table for each of the ages. A re-examination interval of 13-24 months years occurred for most of the remaining children, and was more likely for older rather than younger children within the range five to 12 years. Very few children were re-examined after a period of two or more years.

Changes since 1990

There was an increase in the percentage of children in younger age groups (six years or less) with an "Unknown" date of previous examination which appears to create a somewhat artefactual decrease in the percentage of children aged six years or less with a previous examination. Changes in those percentages for other ages are not substantial. The interval since the previous examination tended to be slightly higher for older children. For example, there was an increase of 6 per cent in the percentage of 12 year-olds with an examination interval of 13 to 24 months, and a reduction of 6 per cent for the seven to 12 month period.

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

This figure presents data contained in Tables 3, 4 and 5 to summarize the extent of dental health (represented by percentage with no caries experience) and the extent of more extensive untreated decay (represented by the percentage with d+D=4 or more).

Figure 2: Time since last dental examination

This figure draws on information from Table 8, and selects six- and 12-year-olds to demonstrate the variation in time since last examination.

References

Palmer JD, Anderson RJ, Downer MC. (1984) Guidelines for prevalence studies of dental caries. *Community Dental Health* 1:55-66.

World Health Organization. (1987) *Oral Health Surveys. Basic Methods*. 3rd Edition. WHO; Geneva.

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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. 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. Within Queensland, the sampling ratio for children whose date of birth is known is 1:5.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

Age (years)	NUMBER OF RECORDS PROCESSED						NUMBER OF CHILDREN IN SAMPLE ¹		
	TYPE OF SAMPLING								
	Known date of birth			Age only known			Males	Females	Persons
	Males	Females	Persons	Males	Females	Persons			
2	6	2	8	0	0	0	7	2	9
3	14	16	30	1	1	2	16	18	34
4	846	820	1666	35	32	67	946	916	1862
5	2381	2238	4619	169	193	362	2677	2523	5200
6	2837	2573	5410	348	334	682	3221	2926	6147
7	2719	2654	5373	358	378	736	3093	3025	6118
8	2715	2617	5332	401	374	775	3098	2983	6081
9	2609	2539	5148	410	362	772	2982	2894	5876
10	2552	2381	4933	399	402	801	2917	2728	5644
11	2499	2378	4877	453	431	884	2870	2731	5600
12	1538	1442	2980	286	247	533	1768	1653	3420
13	268	139	407	32	34	66	304	162	466
14	31	20	51	0	2	2	34	23	57
15	22	14	36	0	1	1	24	16	40
16	13	10	23	1	2	3	15	12	26
17	13	11	24	1	2	3	15	13	27
18	6	3	9	0	1	1	7	4	10
19	1	2	3	1	0	1	1	2	4
20	1	1	2	1	0	1	1	1	2
21	0	0	0	1	0	1	0	0	0
Total	21071	19860	40931	2897	2796	5693	23994	22630	46624

¹ The number of children included in the sample equals the number of records sampled where date of birth is known plus the product of the number of records of children with unknown birthdate and sampling ratio. Second and subsequent examinations of children within the reporting period are eliminated. These are rounded numbers of children.

TABLE 2: COUNTRY OF BIRTH (INCLUDING ABORIGINALITY)

The country of birth of children may be determined from information concerning birthplace of the child and mother. The coding scheme is described in the separate report entitled *Child Dental Health Survey: Survey Guide for Queensland*.

These data are not collected currently in Queensland.

TABLE 3: DECIDUOUS TEETH: AGE-SPECIFIC PREVALENCE

This table uses State-wide data to describe the dmft¹ 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 40 per cent, and population estimates of these indices are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

Age (years)	Number of children in sample ²	decayed		dmf		d/dmf	Children with dmf=0
		mean	sd	mean	sd	%	%
3	34	0.91	1.49	1.83	2.48	60.9	46.1
4	1862	1.50	2.83	1.79	3.22	86.8	59.4
5	5200	1.34	2.45	2.04	3.23	69.4	53.8
6	6147	1.11	2.07	2.48	3.35	47.9	46.5
7	6118	0.76	1.47	2.69	3.15	31.0	39.8
8	6081	0.59	1.17	2.74	3.05	24.5	37.8
9	5876	0.53	1.03	2.74	2.89	21.6	35.0
10	5644	0.40	0.89	2.13	2.56	20.6	41.8

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

² 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 4: PERMANENT TEETH: AGE-SPECIFIC PREVALENCE

This table uses State-wide data to describe the DMFT¹ 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 40 per cent, and population estimates of these indices are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

Age (years)	Number of children in sample ²	DECAYED		DMF		D/DMF %	Children with DMF=0 %
		mean	sd	mean	sd		
6	6147	0.08	0.41	0.10	0.48	84.0	93.8
7	6118	0.19	0.57	0.29	0.76	68.4	83.2
8	6081	0.25	0.66	0.51	1.00	50.7	73.0
9	5876	0.25	0.67	0.68	1.17	37.3	66.1
10	5644	0.30	0.73	0.96	1.42	32.3	56.8
11	5600	0.34	0.87	1.18	1.70	29.0	52.7
12	3420	0.44	1.01	1.54	2.02	29.0	45.0
13	466	0.74	1.42	2.41	2.86	30.1	34.3
14	57	0.72	1.71	3.21	3.79	22.3	33.5
15	40	*	*	2.28	2.39	19.3	41.4

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

² 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 5: ALL TEETH: AGE-SPECIFIC PREVALENCE¹

This table uses State-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 excluded. Age-specific indices denoted with an asterisk (*) are those in which the relative standard error exceeds 40 per cent, and population estimates of these indices are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

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	dmf+DMF=0
4	1862	62.1	9.9	7.7	5.1	15.3	98.2	92.4	59.1
5	5200	60.8	11.2	8.9	5.0	14.1	97.7	80.2	53.5
6	6147	59.3	14.6	8.9	5.5	11.6	96.8	63.1	45.2
7	6118	59.7	17.6	9.9	5.4	7.4	96.2	48.3	36.9
8	6081	60.5	18.5	10.4	4.9	5.8	95.7	42.3	33.2
9	5876	61.5	18.4	10.6	4.9	4.6	96.0	36.4	28.8
10	5644	63.4	19.3	9.1	4.3	3.8	97.7	36.7	29.4
11	5600	68.6	17.9	7.5	3.0	3.0	98.5	42.1	34.7
12	3420	68.3	17.8	8.6	2.6	2.6	98.5	44.7	35.3
13	466	60.5	19.4	10.5	3.7	6.0	96.9	39.4	29.1
14	57	60.7	19.8	9.7	*	*	96.1	30.0	23.7
15	40	77.9	13.8	0.0	*	*	100	47.0	38.7

- 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
 - dmf - decayed, missing or filled deciduous teeth
 - DMF - decayed, missing or filled permanent teeth

- ² 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 6: FISSURE SEALANTS: AGE-SPECIFIC PREVALENCE¹

This table uses State-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. 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 40 per cent, and population estimates of these indices are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

Age (years)	Number of children in sample	Number of sealants		CHILDREN WITH DMF=0		CHILDREN WITH DMF=1+	
		mean	sd	number	% with F/S=1+	number	% with F/S=1+
6	6147	0.05	0.39	5767	1.7	379	5.5
7	6118	0.22	0.79	5089	7.7	1029	12.7
8	6081	0.34	0.96	4441	12.7	1640	15.9
9	5876	0.31	0.90	3886	12.3	1990	15.1
10	5644	0.27	0.89	3204	10.6	2440	13.6
11	5600	0.22	0.82	2949	8.9	2651	10.5
12	3420	0.22	0.83	1538	8.0	1882	9.9
13	466	0.27	1.05	160	8.3	306	11.9
14	57	*	*	19	*	38	14.6
15	40	*	*	17	*	24	*

¹ Legend DMF - decayed, missing or filled permanent teeth
 F/S - fissure sealed teeth
 sd - standard deviation

TABLE 7: IMMEDIATE TREATMENT NEEDS AGE-SPECIFIC DISTRIBUTION¹

This table, based on State-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. 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 40 per cent, and population estimates of these indices are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

CHILDREN IN NEED OF IMMEDIATE TREATMENT												
Age (years)	Number of children in sample		% of all children	dmf		DMF		% with d+D=				
		No.		mean	sd	mean	sd	0	1	2	3	4+
4	1862	63	3.4	7.91	5.05	-	-	*	*	9.4	*	73.8
5	5200	115	2.3	7.05	4.67	*	*	7.7	8.1	5.4	9.1	69.8
6	6147	112	2.1	6.97	4.29	*	*	9.1	6.3	11.7	7.9	64.9
7	6118	61	1.2	5.94	3.74	0.95	1.40	*	13.2	11.4	15.7	52.4
8	6081	61	1.2	5.17	3.23	1.08	1.39	19.4	9.9	15.4	16.5	38.8
9	5876	54	1.1	5.23	3.30	1.57	2.21	27.0	14.8	18.9	14.3	25.0
10	5644	39	0.8	3.89	2.94	1.97	1.97	14.3	14.3	22.9	14.3	34.3
11	5600	41	0.9	3.20	3.35	3.62	2.98	18.8	16.1	*	13.4	45.7
12	3420	19	0.7	1.51	2.20	2.44	2.18	40.7	*	24.4	0.0	*
13	466	7	1.8	*	*	8.16	3.76	0.0	*	*	*	48.4
14	57	0	0.0	-	-	-	-	-	-	-	-	-
15	40	0	0.0	-	-	-	-	-	-	-	-	-

¹ Legend dmf - decayed, missing or filled deciduous teeth
 DMF - decayed, missing or filled permanent teeth
 d - decayed deciduous teeth
 D - decayed permanent teeth

**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 40 per cent, and population estimates of these percentages are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

Age (years)	Number of children examined	Previous examination in School Dental Service (%)			CHILDREN WITH PREVIOUS EXAMINATION				
		Yes	No	Unknown	Months since last examination ¹ (%)				
					0-6	7-12	13-24	25+	Med ²
4	1345	75.7	7.0	17.3	31.4	53.3	11.9	*	9
5	4444	40.4	37.3	22.3	12.6	59.2	17.0	11.2	11
6	6980	11.8	68.5	19.7	6.3	63.0	22.7	8.0	11
7	6889	4.2	81.8	14.0	4.7	59.9	33.2	2.2	12
8	6729	3.0	83.2	13.8	4.9	57.9	34.8	2.3	12
9	6581	3.0	83.0	14.0	4.6	58.7	34.4	2.2	12
10	6272	3.9	82.6	13.5	4.0	60.3	33.4	2.3	12
11	6515	2.9	82.7	14.4	3.1	62.2	31.9	2.7	12
12	4324	3.2	83.5	13.2	3.8	64.9	28.8	2.5	12
13	574	2.5	82.4	15.1	2.8	65.2	25.7	6.3	12
14	45	*	73.4	19.2	*	58.0	36.0	*	12
15	29	*	79.6	*	*	34.2	60.1	0.0	13

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

² Median number of months between last and penultimate visit. The median represents the 50th percentile, or the score below which 50 per cent of cases lie.

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

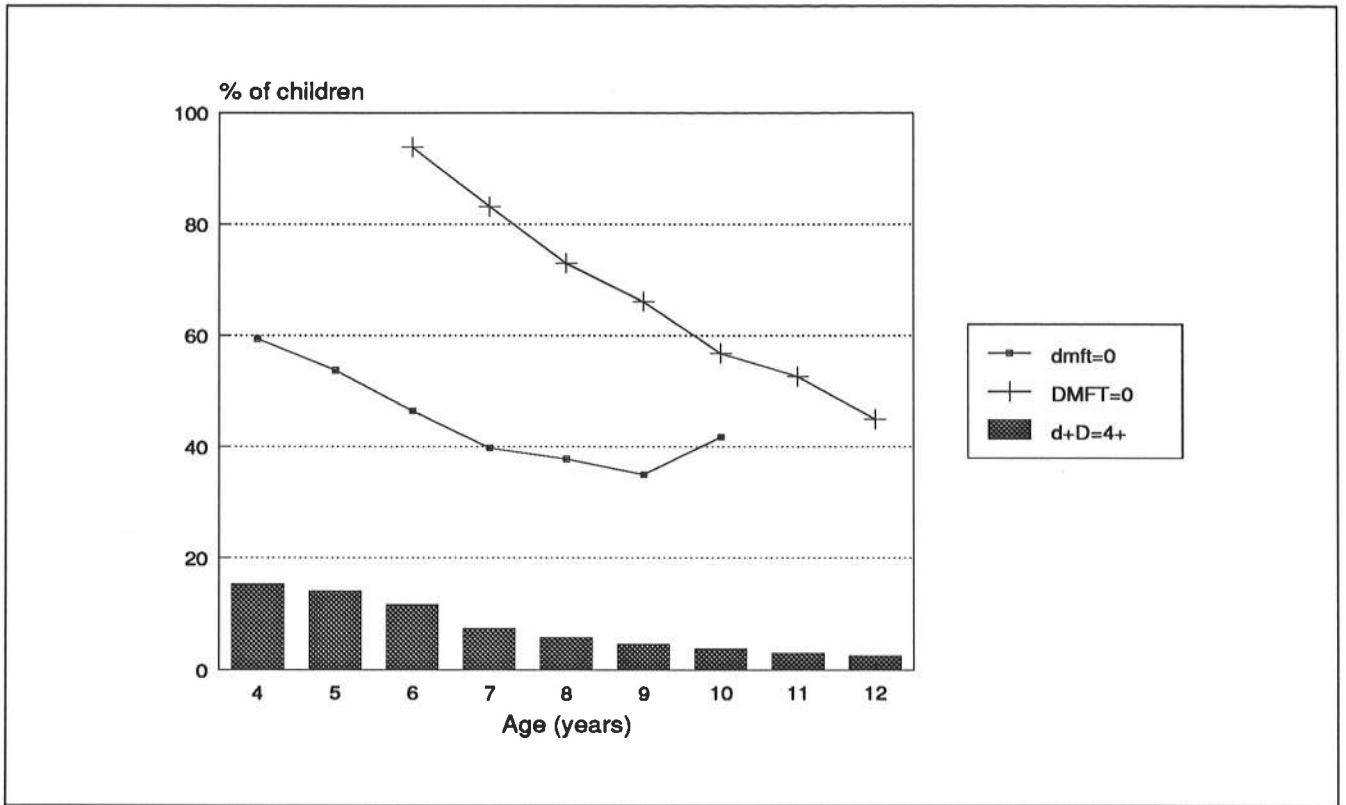


FIGURE 2: TIME SINCE LAST DENTAL EXAMINATION

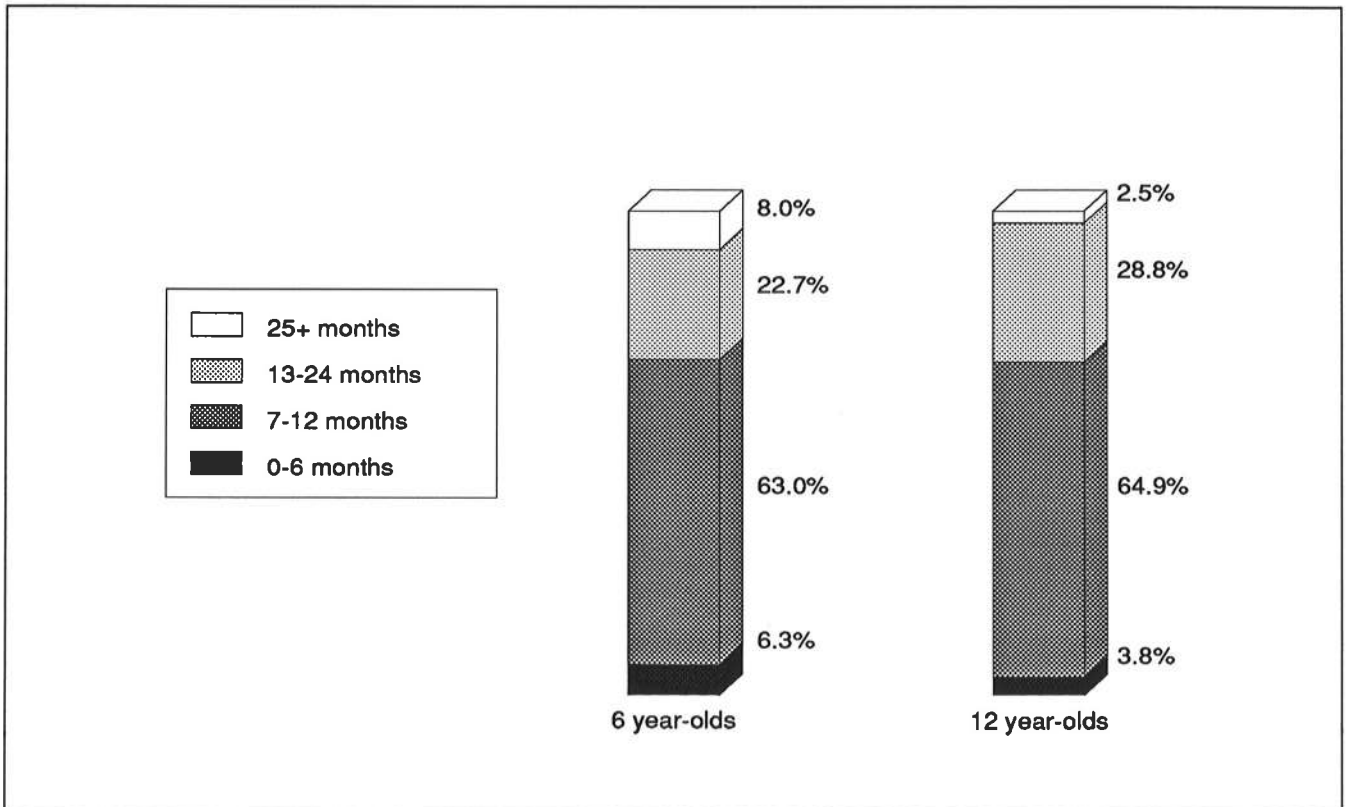


TABLE 9: REGIONAL AGE GROUP-SPECIFIC dmf¹ PREVALENCE

The Statewide data are broken down into regional estimates of the prevalence of the dmf index and its components; a State total is also provided in Table 3. Indexes are calculated from data collected over a 12 month period, and information derived from subsequent examinations of a child in this period is excluded. Age group-specific indexes denoted with an asterisk (*) are those in which the relative standard error exceeds 40 per cent, and population estimates of these indexes are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

dmf: PREVALENCE FOR AGE GROUPS

Age (years)	Number of children in sample ²	decayed		dmf		d/dmf %	Children with dmf=0 %
		mean	sd	mean	sd		
Region 1: Peninsula and Torres Strait							
3-5	696	1.49	2.57	2.53	3.29	68.1	48.8
6-8	586	1.49	2.42	3.24	3.53	45.5	33.5
9-11	568	0.48	1.03	1.94	2.54	27.1	48.4
Region 2: Northern							
3-5	950	1.82	2.37	2.02	2.71	91.4	46.9
6-8	1127	0.76	1.49	2.20	2.94	37.9	46.0
9-11	1252	0.33	0.80	1.54	2.25	24.8	54.0
Region 3: Central Western							
3-5	11	*	*	*	*	79.3	52.1
6-8	10	*	*	*	*	61.2	43.5
9-11	10	*	*	*	*	*	59.2

(continued over)

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

² 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.

(continued from previous page)

Age (years)	Number of children in sample ²	decayed mean	sd	dmf ¹ mean	sd	d/dmf %	Children with dmf=0 %
Region 4: South West							
3-5	42	1.46	2.39	2.19	2.89	64.5	48.1
6-8	38	0.70	1.50	2.69	2.94	32.5	37.5
9-11	25	*	*	2.03	2.65	*	43.4
Region 5: Mackay							
3-5	380	1.16	2.09	2.14	2.34	44.4	35.8
6-8	277	0.74	1.42	2.45	3.10	31.6	43.3
9-11	272	0.36	0.87	2.05	2.68	18.1	46.5
Region 6: Central							
3-5	378	1.13	2.43	1.46	2.96	79.8	66.5
6-8	317	0.96	1.67	2.80	3.18	36.8	38.7
9-11	286	0.53	1.04	2.38	2.74	24.9	39.5
Region 7: Wide Bay							
3-5	368	1.22	2.58	2.32	3.13	47.5	43.0
6-8	355	0.88	1.71	2.88	3.34	33.3	38.4
9-11	333	0.36	0.84	2.07	2.62	19.4	46.4
Region 8: Darling Downs							
3-5	958	1.36	2.42	1.77	2.92	69.9	54.4
6-8	581	0.78	1.54	2.73	3.14	31.0	38.6
9-11	560	0.44	0.93	2.23	2.65	22.3	42.1
Region 9: Sunshine Coast							
3-5	933	1.04	2.06	2.15	3.32	66.4	54.3
6-8	793	0.75	1.51	2.55	3.10	31.8	42.0
9-11	762	0.38	0.89	2.08	2.58	20.0	44.1

(continued over)

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

² 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.

(continued from previous page)

Age (years)	Number of children in sample ²	decayed mean	sd	dmf ¹ mean	sd	d/dmf %	Children with dmf=0 %
Region 10: South Coast							
3-5	422	1.31	2.52	1.67	2.86	82.5	44.0
6-8	655	0.88	1.63	2.33	3.01	41.4	46.0
9-11	580	0.41	0.87	1.83	2.40	25.5	46.0
Region 11: West Morton							
3-5	436	1.06	2.40	1.51	3.00	74.1	67.2
6-8	486	0.77	1.56	2.91	3.14	28.1	36.8
9-11	407	0.33	0.77	2.36	2.73	16.0	40.9
Region 12: Brisbane North							
3-5	681	1.00	2.10	1.32	2.58	84.8	58.5
6-8	970	0.62	1.37	2.20	2.96	32.1	46.9
9-11	874	0.34	0.88	1.93	2.63	18.3	49.2
Region 13: Brisbane South							
3-5	1274	1.26	2.33	1.86	3.00	73.0	53.8
6-8	1579	0.84	1.73	2.77	3.33	33.2	41.7
9-11	1528	0.38	0.90	2.09	2.63	19.9	45.5

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

² 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 10: REGIONAL AGE GROUP-SPECIFIC DMF¹ PREVALENCE

The Statewide data are broken down into regional estimates of the prevalence of the DMF index and its components; a State total is also provided in Table 4. Indexes are calculated from data collected over a 12 month period, and information derived from subsequent examinations of a child in this period is excluded. Age group-specific indexes denoted with an asterisk (*) are those in which the relative standard error exceeds 40 per cent, and population estimates of these indexes are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

DMF: PREVALENCE FOR AGE GROUPS

Age (years)	Number of children in sample ²	DECAYED		DMF		D/DMF %	Children with DMF=0 %
		mean	sd	mean	sd		
Region 1: Peninsula and Torres Strait							
6-8	586	0.17	0.51	0.27	0.70	61.4	83.5
9-11	568	0.40	1.03	0.94	1.58	41.0	57.4
12-14	864	0.84	1.21	2.29	2.47	56.1	17.4
Region 2: Northern							
6-8	1127	0.12	0.45	0.21	0.63	62.5	87.2
9-11	1252	0.19	0.61	0.65	1.20	30.0	68.1
12-14	892	0.36	0.81	1.34	1.99	28.1	53.0
Region 3: Central Western							
6-8	10	-	-	*	*	0.00	87.1
9-11	10	*	*	*	*	*	58.7
12-14	62	*	*	4.74	0.88	*	*

(continued over)

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

² 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.

(continued from previous page)

Age (years)	Number of children in sample ²	DECAYED		DMF ¹		D/DMF %	Children with DMF=0 %
		mean	sd	mean	sd		
Region 4: South West							
6-8	38	*	*	0.44	1.02	84.4	78.6
9-11	25	*	*	1.11	1.76	31.2	55.1
12-14	5	*	*	*	*	25.0	71.4
Region 5: Mackay							
6-8	277	0.12	0.43	0.22	0.64	63.5	87.1
9-11	272	0.21	0.57	0.78	1.29	29.0	62.3
12-14	103	0.32	0.81	1.61	2.03	16.8	48.0
Region 6: Central							
6-8	317	0.18	0.58	0.33	0.82	59.2	82.2
9-11	286	0.40	1.03	0.97	1.65	39.9	57.8
12-14	281	0.59	1.52	1.47	2.31	36.1	56.3
Region 7: Wide Bay							
6-8	355	0.20	0.61	0.37	0.92	58.9	81.8
9-11	333	0.36	0.85	1.12	1.61	31.3	51.6
12-14	506	0.46	0.93	2.68	2.40	19.0	24.5
Region 8: Darling Downs							
6-8	581	0.17	0.55	0.31	0.83	58.7	83.3
9-11	560	0.28	0.72	0.97	1.44	30.0	57.7
12-14	595	0.48	0.82	1.87	2.01	25.0	38.8
Region 9: Sunshine Coast							
6-8	793	0.15	0.49	0.25	0.69	61.4	84.9
9-11	762	0.29	0.73	0.93	1.49	31.8	59.9
12-14	942	0.97	2.63	2.13	3.71	31.6	54.3

(continued over)

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

² 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.

(continued from previous page)

Age (years)	Number of children in sample ²	DECAYED		DMF ¹		D/DMF %	Children with DMF=0 %
		mean	sd	mean	sd		
Region 10: South Coast							
6-8	655	0.17	0.56	0.30	0.79	59.2	83.9
9-11	580	0.26	0.65	0.79	1.29	36.3	63.2
12-14	731	0.80	1.21	2.18	2.32	38.8	32.1
Region 11: West Morton							
6-8	486	0.20	0.60	0.34	0.82	61.2	81.3
9-11	407	0.29	0.75	1.03	1.47	29.5	54.9
12-14	571	0.46	0.80	2.55	2.37	29.0	30.0
Region 12: Brisbane North							
6-8	970	0.16	0.53	0.26	0.73	61.8	85.3
9-11	874	0.27	0.75	0.82	1.35	32.6	61.7
12-14	950	0.64	0.99	3.20	3.43	22.9	27.9
Region 13: Brisbane South							
6-8	1579	0.20	0.63	0.34	0.86	60.5	81.1
9-11	1528	0.34	0.80	1.08	1.54	32.4	54.0
12-14	1641	0.61	1.29	2.60	3.80	23.3	38.9

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

² 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 11: REGIONAL AGE GROUP-SPECIFIC DMF + dmf¹ PREVALENCE

The Statewide data are broken down into regional estimates of the prevalence of the combined components of the dmf and DMF. Indexes are calculated from data collected over a 12 month period, and information derived from subsequent examinations of a child in this period are excluded. Age group-specific indexes denoted with an asterisk (*) are those in which the relative standard error exceeds 40 per cent, and population estimates of these indexes are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

DMF: PREVALENCE FOR AGE GROUPS

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	dmf+DMF=0
Region 1: Peninsula and Torres Strait									
3-5	696	62.5	4.9	5.4	13.8	13.3	98.2	81.4	48.7
6-8	586	48.5	15.9	11.2	8.4	16.0	93.0	52.0	31.0
9-11	568	58.0	22.1	8.3	6.1	5.5	97.4	40.8	30.8
12-14	153	65.2	21.3	6.8	4.4	2.4	99.5	42.0	34.3
Region 2: Northern									
3-5	950	41.2	12.9	12.4	10.5	23.0	98.5	93.7	38.5
6-8	1127	62.7	16.2	9.0	4.7	7.4	95.4	57.0	43.0
9-11	1252	70.3	17.0	7.3	3.1	2.3	98.0	48.2	40.8
12-14	429	77.5	14.6	4.6	1.4	1.9	99.1	56.5	47.8
Region 3: Central Western									
3-5	11	56.9	9.7	*	0.0	28.5	90.3	95.1	52.1
6-8	10	52.2	17.5	17.3	*	*	95.7	69.6	43.5
9-11	10	68.2	18.1	*	0.0	*	95.6	45.1	40.7
12-14	4	60.0	*	0.0	*	0.0	100	40.0	*

(continued over)

¹ Legend: d+D - decayed deciduous and permanent teeth
m+M - missing deciduous and permanent teeth
f+F - restored deciduous and permanent teeth
dmf+DMF - decayed, missing or filled deciduous and permanent teeth

² 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.

(continued from previous page)

Age (years)	Number of children in sample ²	% of children with d+D ¹ =					% of children with		
		0	1	2	3	≥4	m+M=0	f+F=0	dmf+DMF=0
Region 4: South West									
3-5	42	59.0	9.7	10.9	3.7	16.7	98.8	76.9	48.1
6-8	38	56.7	22.8	6.9	3.4	10.2	97.7	51.2	31.8
9-11	25	65.7	25.8	*	0.0	6.9	98.2	34.7	27.7
12-14	5	85.7	*	0.0	0.0	0.0	100	71.4	71.4
Region 5: Mackay									
3-5	380	59.6	5.9	4.0	2.3	28.3	99.2	52.6	35.8
6-8	277	61.8	16.4	10.5	5.3	6.1	97.1	52.2	40.3
9-11	272	68.1	17.8	8.8	2.9	2.4	96.4	37.7	32.7
12-14	64	74.4	16.3	5.8	0.0	3.5	95.3	43.0	38.4
Region 6: Central									
3-5	378	69.6	8.7	6.0	3.5	12.2	98.8	89.9	66.2
6-8	317	55.7	17.3	11.0	6.0	10.0	96.2	49.5	35.5
9-11	286	58.3	18.5	10.5	6.5	6.2	97.1	34.8	26.5
12-14	109	66.0	12.9	10.9	6.1	4.1	98.6	44.2	32.7
Region 7: Wide Bay									
3-5	368	67.6	9.8	5.6	5.6	11.3	98.5	66.0	42.7
6-8	355	56.5	18.3	10.7	5.8	8.6	97.0	47.9	35.5
9-11	333	64.5	17.9	7.3	5.8	4.6	97.4	33.7	27.2
12-14	116	66.3	18.5	7.6	3.8	3.8	98.1	39.5	30.6
Region 8: Darling Downs									
3-5	958	64.0	5.8	11.9	2.4	15.8	91.3	86.6	54.1
6-8	581	59.1	19.2	9.3	5.0	7.4	96.2	47.3	36.3
9-11	560	62.1	19.1	10.1	4.8	3.9	96.9	36.5	29.4
12-14	200	63.8	22.9	7.4	4.1	1.8	97.8	41.0	29.9

(continued over)

¹ Legend: d+D - decayed deciduous and permanent teeth
m+M - missing deciduous and permanent teeth
f+F - restored deciduous and permanent teeth
dmf+DMF - decayed, missing or filled deciduous and permanent teeth

² 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.

(continued from previous page)

Age (years)	Number of children in sample ²	% of children with d+D ¹ =					% of children with		
		0	1	2	3	≥4	m+M=0	f+F=0	dmf+DMF=0
Region 9: Sunshine Coast									
3-5	933	58.3	15.4	13.0	3.9	9.4	98.7	82.2	54.2
6-8	793	62.4	15.6	10.3	4.9	6.9	96.4	50.8	39.4
9-11	762	64.4	19.5	9.0	3.2	3.8	97.5	37.5	29.8
12-14	267	69.0	16.9	9.4	2.5	2.2	98.9	44.9	36.8
Region 10: South Coast									
3-5	422	49.8	28.3	9.1	3.1	9.6	98.7	86.6	43.9
6-8	655	58.8	15.9	10.2	4.9	10.2	96.6	57.8	42.8
9-11	580	64.3	18.0	9.8	4.4	3.5	97.5	42.9	33.3
12-14	219	64.2	22.6	9.1	2.0	2.0	99.3	56.4	40.5
Region 11: West Morton									
3-5	436	72.5	7.1	5.5	4.1	10.9	97.4	90.1	67.0
6-8	486	58.4	18.4	10.9	5.3	6.9	95.2	45.4	33.7
9-11	407	66.0	18.0	9.7	3.3	3.0	96.7	32.5	26.1
12-14	136	71.7	10.3	12.5	1.6	3.8	98.9	33.7	27.7
Region 12: Brisbane North									
3-5	681	61.8	20.3	4.9	4.7	8.3	99.0	79.3	46.9
6-8	970	66.3	14.5	9.4	3.4	6.3	97.6	55.8	44.0
9-11	874	69.4	16.2	7.1	3.7	3.7	98.5	42.5	35.5
12-14	285	70.9	16.4	8.8	2.1	1.8	98.7	46.2	37.1
Region 13: Brisbane South									
3-5	1274	57.5	14.1	13.5	3.7	11.2	98.3	81.8	53.6
6-8	1579	59.6	16.8	9.3	5.5	8.8	95.8	51.1	38.4
9-11	1528	62.6	19.4	9.9	4.1	4.0	96.8	36.5	29.3
12-14	532	65.8	19.5	9.4	2.5	2.8	98.3	41.9	33.3

¹ Legend: d+D - decayed deciduous and permanent teeth
m+M - missing deciduous and permanent teeth
f+F - restored deciduous and permanent teeth
dmf+DMF - decayed, missing or filled deciduous and permanent teeth

² 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 12: REGIONAL FISSURE SEALANT DISTRIBUTION

The Statewide data are broken down into regional estimates of the distribution of fissure sealants. Indexes are calculated from data collected over a 12 month period, and information derived from subsequent examinations of a child in this period are excluded. Age group-specific indexes denoted with an asterisk (*) are those in which the relative standard error exceeds 40 per cent, and population estimates of these indexes are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

FISSURE SEALANTS: PREVALENCE FOR AGE GROUPS

Age (years)	Number of children in sample ²	Number of sealants		CHILDREN WITH DMF ¹ =0		CHILDREN WITH DMF=1+	
		mean	sd	number	% with F/S=1+	number	% with F/S=1+
Region 1: Peninsula and Torres Strait							
6-8	586	0.23	0.77	489	8.9	97	13.6
9-11	568	0.31	0.90	326	13.8	242	13.1
12-14	864	0.33	0.98	150	18.6	713	10.3
Region 2: Northern							
6-8	1127	0.14	0.62	983	4.8	145	12.7
9-11	1252	0.19	0.70	853	7.7	399	11.6
12-14	892	0.14	0.55	473	2.8	419	12.6
Region 3: Central Western							
6-8	10	-	-	9	0.0	1	0.0
9-11	10	-	-	6	0.0	4	0.0
12-14	62	*	*	1	0.0	61	*

(continued over)

¹ Legend: DMF - decayed, missing or filled permanent teeth
F/S - fissure sealed teeth
sd - standard deviation

² 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.

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Age (years)	Number of children in sample ²	Number of sealants		CHILDREN WITH DMF ¹ =0		CHILDREN WITH DMF=1+	
		mean	sd	number	% with F/S=1+	number	% with F/S=1+
Region 4: South West							
6-8	38	*	*	30	10.1	8	5.4
9-11	25	*	*	14	9.4	11	0.0
12-14	5	*	*	4	0.0	1	50.0
Region 5: Mackay							
6-8	277	0.11	0.59	241	3.9	36	7.1
9-11	272	0.17	0.68	170	5.9	103	9.9
12-14	103	*	*	49	3.0	54	1.4
Region 6: Central							
6-8	317	0.23	0.82	261	7.8	56	15.2
9-11	286	0.33	0.86	166	14.1	121	18.1
12-14	281	*	*	158	0.9	122	1.8
Region 7: Wide Bay							
6-8	355	0.22	0.79	291	7.6	65	17.0
9-11	333	0.27	0.80	172	11.4	161	14.7
12-14	506	0.33	1.54	124	2.4	383	10.1
Region 8: Darling Downs							
6-8	581	0.16	0.69	484	5.6	97	9.2
9-11	560	0.20	0.75	323	7.8	237	9.2
12-14	595	0.09	0.55	231	5.6	364	2.6
Region 9: Sunshine Coast							
6-8	793	0.13	0.60	673	4.5	120	9.6
9-11	762	0.22	0.78	457	8.6	305	10.6
12-14	942	0.21	0.74	511	11.2	430	4.8

(continued over)

¹ Legend: DMF - decayed, missing or filled permanent teeth
F/S - fissure sealed teeth
sd - standard deviation

² 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.

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Age (years)	Number of children in sample ²	Number of sealants		CHILDREN WITH DMF ¹ =0		CHILDREN WITH DMF=1+	
		mean	sd	number	% with F/S=1+	number	% with F/S=1+
Region 10: South Coast							
6-8	655	0.09	0.56	549	2.2	105	8.0
9-11	580	0.19	1.09	366	5.5	214	7.8
12-14	731	0.14	0.66	235	7.3	497	6.4
Region 11: West Morton							
6-8	486	0.25	0.84	395	9.5	91	12.6
9-11	407	0.36	0.95	223	16.4	183	15.9
12-14	571	0.66	1.30	171	11.3	400	36.5
Region 12: Brisbane North							
6-8	970	0.28	0.89	827	9.3	143	17.5
9-11	874	0.39	1.01	539	14.7	335	20.0
12-14	950	0.43	1.14	265	9.5	684	21.0
Region 13: Brisbane South							
6-8	1579	0.21	0.78	1280	7.1	299	14.2
9-11	1528	0.24	0.79	825	10.4	703	11.1
12-14	1641	0.18	0.78	639	4.4	1002	8.4

¹ Legend: DMF - decayed, missing or filled permanent teeth
F/S - fissure sealed teeth
sd - standard deviation

² 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 13: REGIONAL IMMEDIATE TREATMENT NEEDS

The Statewide data are broken down into regional estimates of the need for immediate treatment. Indexes 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 group-specific indices denoted with an asterisk (*) are those in which the relative standard error exceeds 40 per cent, and population estimates of these indices are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

IMMEDIATE TREATMENT NEEDS: PREVALENCE FOR AGE GROUPS

CHILDREN IN NEED OF IMMEDIATE TREATMENT												
Age (years)	Number of children in sample ²	No.	% of all children	dmf ¹		DMF		% with d+D=				
				mean	sd	mean	sd	0	1	2	3	4+
Region 1: Peninsula and Torres Strait												
3-5	696	19	2.7	9.32	3.85	*	*	0.0	*	0.0	*	94.6
6-8	586	36	6.1	7.49	3.64	0.41	0.85	0.0	4.8	12.1	10.8	72.3
9-11	568	9	1.5	4.99	2.95	2.60	2.70	0.0	*	25.3	14.9	54.7
12-14	864	11	1.3	-	-	8.00	2.10	0.0	0.0	50.0	0.0	50.0
Region 2: Northern												
3-5	950	179	22.4	2.80	1.99	-	-	1.7	1.7	46.4	46.1	4.2
6-8	1127	14	2.7	3.96	3.56	*	*	15.0	15.1	30.4	9.0	30.5
9-11	1252	2	0.4	*	*	*	*	*	*	40.2	0.0	*
12-14	892	6	2.8	-	-	3.23	0.70	0.0	0.0	100	0.0	0.0
Region 3: Central Western												
3-5	11	1	*	13.0	-	-	-	0.0	0.0	0.0	0.0	100
6-8	10	0	0.0	-	-	-	-	-	-	-	-	-
9-11	10	0	0.0	-	-	-	-	-	-	-	-	-
12-14	62	0	0.0	-	-	-	-	-	-	-	-	-

(continued over)

¹ Legend dmf - decayed, missing or filled deciduous teeth
 DMF - decayed, missing or filled permanent teeth
 d - decayed deciduous teeth
 D - decayed permanent teeth

² 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.

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CHILDREN IN NEED OF IMMEDIATE TREATMENT												
Age (years)	Number of children in sample ²	No.	% of all children	dmf ¹		DMF		% with d+D=				
				mean	sd	mean	sd	0	1	2	3	4+
Region 4: South West												
3-5	42	0	0.0	-	-	-	-	-	-	-	-	-
6-8	38	0	0.0	-	-	-	-	-	-	-	-	-
9-11	25	0	*	2.00	-	4.00	-	0.0	0.0	0.0	0.0	100
12-14	5	0	0.0	-	-	-	-	-	-	-	-	-
Region 5: Mackay												
3-5	380	5	1.4	6.28	1.57	-	-	0.0	0.0	0.0	0.0	100
6-8	277	1	*	6.50	-	-	-	0.0	0.0	*	0.0	*
9-11	272	3	1.1	5.88	3.79	*	*	*	28.4	0.0	43.2	*
12-14	103	1	*	-	-	-	-	100	0.0	0.0	0.0	0.0
Region 6: Central												
3-5	378	5	1.3	6.16	5.26	-	-	29.4	*	0.0	0.0	60.3
6-8	317	2	0.7	6.40	1.86	*	*	0.0	40.2	*	*	*
9-11	286	3	0.9	*	*	*	*	33.3	0.0	*	0.0	50.4
12-14	281	1	*	-	-	-	-	100	0.0	0.0	0.0	0.0
Region 7: Wide Bay												
3-5	368	6	1.5	9.05	3.27	-	-	0.0	0.0	0.0	0.0	100
6-8	355	2	0.6	*	*	*	*	*	0.0	*	0.0	61.0
9-11	333	2	0.7	*	*	*	*	39.8	0.0	*	*	*
12-14	506	1	0.3	0.50	-	2.00	-	50.0	0.0	0.0	0.0	50.0
Region 8: Darling Downs												
3-5	958	14	1.5	9.19	4.72	*	*	0.0	0.0	*	0.0	96.3
6-8	581	9	1.5	7.23	4.09	*	*	*	*	*	*	80.1
9-11	560	6	1.1	*	*	3.59	2.85	21.0	*	0.0	36.1	36.0
12-14	595	7	1.2	*	*	5.58	1.72	0.0	*	0.0	79.2	*

(continued over)

¹ Legend dmf - decayed, missing or filled deciduous teeth
 DMF - decayed, missing or filled permanent teeth
 d - decayed deciduous teeth
 D - decayed permanent teeth

² 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.

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CHILDREN IN NEED OF IMMEDIATE TREATMENT												
Age (years)	Number of children in sample ²	% of all children	dmf ¹		DMF		% with d+D=					
			mean	sd	mean	sd	0	1	2	3	4+	
Region 9: Sunshine Coast												
3-5	933	10	1.1	9.75	4.88	-	-	0.0	*	*	14.5	75.4
6-8	793	5	0.7	5.89	4.04	*	*	*	0.0	*	*	58.2
9-11	762	7	1.0	3.25	3.18	2.78	2.47	23.6	17.7	23.2	0.0	35.5
12-14	942	8	0.8	*	*	4.91	0.31	0.0	81.1	*	0.0	*
Region 10: South Coast												
3-5	422	12	2.9	7.99	4.31	-	-	0.0	*	8.5	25.7	61.6
6-8	655	9	1.3	7.42	4.04	*	*	0.0	*	15.1	*	70.2
9-11	580	6	1.0	4.64	2.60	1.78	1.31	*	*	30.5	*	46.7
12-14	731	8	1.1	*	*	6.21	3.13	*	*	*	0.0	71.7
Region 11: West Morton												
3-5	436	9	2.1	7.33	5.21	-	-	16.4	0.0	0.0	*	77.9
6-8	486	3	0.7	*	*	*	*	*	0.0	*	*	50.2
9-11	407	3	0.8	*	*	*	*	49.7	*	0.0	0.0	33.6
12-14	571	1	*	4.00	-	3.00	-	100	0.0	0.0	0.0	0.0
Region 12: Brisbane North												
3-5	681	11	1.7	3.79	4.04	-	-	36.7	0.0	13.3	27.3	22.7
6-8	970	10	1.7	3.37	3.11	*	*	49.8	*	0.0	16.7	25.1
9-11	874	3	0.5	*	*	*	*	66.2	0.0	0.0	0.0	33.8
12-14	950	0	0.0	-	-	-	-	-	-	-	-	-
Region 13: Brisbane South												
3-5	1274	29	2.3	7.73	5.46	*	*	*	10.7	17.4	3.6	66.5
6-8	1579	18	1.5	6.64	4.81	*	*	12.0	14.2	*	11.9	57.2
9-11	1528	11	1.0	4.02	3.20	2.43	2.77	20.1	32.1	11.8	15.9	20.1
12-14	1641	9	0.7	1.26	1.18	10.4	6.76	17.2	0.0	17.2	0.0	65.5

¹ Legend dmf - decayed, missing or filled deciduous teeth
 DMF - decayed, missing or filled permanent teeth
 d - decayed deciduous teeth
 D - decayed permanent teeth

² 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 14: INTRASTATE COMPARISON: AGE-STANDARDIZED dmf¹

This table uses age-standardized estimates of dmf within each region. Age standardization eliminates any biases which may be introduced by variations in the age composition among different regions. Data are based on information collected during the previous twelve months, and information derived from examinations other than the first is excluded. Age group-specific indices denoted with an asterisk (*) are those in which the relative standard error exceeds 40 per cent, and population estimates of these indices are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

dmf: PREVALENCE FOR AGE GROUPS

Region	Number of children in sample ²	AGE STANDARDIZED					Children with dmf=0 %
		decayed mean	sd	dmf mean	sd	d/dmf %	
Peninsula and Torres Strait	3799	0.58	1.65	1.61	2.56	30.1	55.0
Northern	5998	0.55	1.38	1.33	2.65	46.2	68.0
Central Western	92	0.35	1.24	0.59	1.92	61.1	84.1
South West	110	0.85	1.80	2.22	2.82	40.6	45.8
Mackay	1110	0.67	1.54	1.90	2.60	32.9	48.8
Central	1650	0.75	1.51	1.59	2.51	59.2	45.0
Wide Bay	2026	0.46	1.45	1.33	2.54	34.2	67.2
Darling Downs	4166	0.55	1.48	1.28	2.37	40.8	63.6
Sunshine Coast	5783	0.39	1.14	1.39	2.35	37.7	58.7
South Coast	3548	0.40	1.27	1.01	2.17	42.2	70.8
West Morton	2866	0.35	1.24	1.20	2.41	29.5	71.8
Brisbane North	5287	0.34	1.12	1.02	2.24	38.8	73.3
Brisbane South	8612	0.44	1.32	1.44	2.47	31.0	62.5

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

² 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 15: INTRASTATE COMPARISON: AGE-STANDARDIZED DMF¹

This table uses age-standardized estimates of dmf within each region. Age standardization eliminates any biases which may be introduced by variations in the age composition among different regions. Data are based on information collected during the previous twelve months, and information collected from subsequent examinations of a child in this period is eliminated. Age group-specific indices denoted with an asterisk (*) are those in which the relative standard error exceeds 40 per cent, and population estimates of these indices are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

DMF: PREVALENCE FOR AGE GROUPS

Region	Number of children in sample ²	AGE STANDARDIZED					Children with dmf=0 %
		DECAYED mean	sd	DMF mean	sd	D/DMF %	
Peninsula and Torres Strait	3799	0.40	1.14	1.03	1.94	42.9	62.1
Northern	5998	0.19	0.56	0.56	1.36	41.6	77.4
Central Western	92	*	*	3.31	2.26	*	28.0
South West	110	0.23	0.73	0.47	1.21	52.5	80.5
Mackay	1110	0.25	0.65	0.54	1.14	51.7	75.7
Central	1650	0.20	0.83	0.48	1.35	42.1	81.7
Wide Bay	2026	0.27	0.68	1.46	2.12	25.1	56.4
Darling Downs	4166	0.17	0.52	1.12	1.99	17.1	62.6
Sunshine Coast	5783	0.26	1.17	0.85	1.93	25.8	67.1
South Coast	3548	0.34	0.87	1.09	1.90	31.5	65.0
West Morton	2866	0.33	0.93	2.31	4.10	16.3	46.7
Brisbane North	5287	0.25	0.71	1.71	2.74	17.3	54.6
Brisbane South	8612	0.29	0.77	1.92	3.31	20.9	57.3

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

² 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 16: ALL TEETH: AGE STANDARDIZED PREVALENCE

This table uses age-standardized estimates of dmf within each region. Age standardization eliminates any biases which may be introduced by variations in the age composition among different regions. Data are based on information collected during the previous twelve months, and information collected from subsequent examinations of a child in this period is eliminated. Age group-specific indices denoted with an asterisk (*) are those in which the relative standard error exceeds 40 per cent, and population estimates of these indices are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

Region	Number of children in sample ²	% of children with d+D ¹ =					% of children with dmf+DMF=0		
		0	1	2	3	≥4	m+M=0	f+F=0	DMF=0
Peninsula and Torres Strait	1497	54.2	18.1	9.3	6.8	11.5	95.8	50.5	33.0
Northern	3084	68.2	15.7	7.6	3.5	5.0	97.1	55.9	44.3
Central Western	29	57.9	17.8	10.5	5.5	8.2	93.6	62.5	39.2
South West	91	60.9	20.3	6.7	3.1	9.0	98.0	52.6	35.8
Mackay	696	65.7	15.9	9.3	3.8	5.3	96.7	49.1	39.1
Central	847	58.4	16.3	10.3	6.1	8.8	97.1	48.8	34.7
Wide Bay	942	60.2	17.9	8.7	5.6	7.5	97.3	46.2	33.7
Darling Downs	1544	60.8	18.7	9.2	4.9	6.4	97.0	46.8	35.0
Sunshine Coast	2124	63.8	16.6	9.5	4.0	6.1	97.3	49.3	37.7
South Coast	1649	61.7	16.7	10.4	4.3	6.9	97.5	54.8	40.3
West Morton	1199	63.3	16.3	10.2	4.2	5.9	96.2	44.5	33.2
Brisbane North	2413	67.9	14.8	8.4	3.6	5.3	98.2	53.0	42.0
Brisbane South	4142	61.7	17.5	9.4	4.5	7.0	96.7	48.0	36.3

¹ Legend: d+D - decayed deciduous and permanent teeth
m+M - missing deciduous and permanent teeth
f+F - restored deciduous and permanent teeth
dmf+DMF - decayed, missing or filled deciduous and permanent teeth

² 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 3S: DECIDUOUS TEETH: AGE-SPECIFIC PREVALENCE

This table uses State-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. 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 40 per cent, and population estimates of these indices are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

Age (years)	Number of children in sample ²	decayed		missing		filled		dmf ¹	
		mean	sd	mean	sd	mean	sd	mean	sd
5	4993	1.32	2.44	0.05	0.45	0.63	1.62	2.00	3.21
6	6083	1.10	2.05	0.06	0.46	1.27	2.20	2.43	3.32
7	6107	0.76	1.46	0.07	0.38	1.82	2.44	2.64	3.13
8	6096	0.57	1.15	0.08	0.47	2.02	2.49	2.67	3.02
9	5910	0.51	1.02	0.07	0.44	2.08	2.45	2.67	2.86
10	5743	0.39	0.89	0.03	0.32	1.65	2.16	2.08	2.54

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

² 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 4S: PERMANENT TEETH: AGE-SPECIFIC PREVALENCE

This table uses State-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. 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 40 per cent, and population estimates of these indices are statistically unreliable.

State/Territory: Queensland

Sampling ratio: 1:5

Data for period January-December 1991

Date of report: 18th November 1992

Age (years)	Number of children in sample ²	DECAYED		MISSING		FILLED		DMF ¹		F/DM F %
		mean	sd	mean	sd	mean	sd	mean	sd	
5	4993	0.01	0.17	0.00	0.03	0.01	0.12	0.02	0.22	85.5
6	6083	0.08	0.40	0.00	0.03	0.02	0.19	0.10	0.47	84.9
7	6107	0.19	0.57	0.00	0.04	0.09	0.43	0.28	0.75	84.7
8	6095	0.24	0.64	0.00	0.06	0.24	0.68	0.48	0.98	85.6
9	5910	0.24	0.66	0.01	0.11	0.40	0.86	0.65	1.14	86.4
10	5743	0.28	0.71	0.01	0.19	0.62	1.08	0.91	1.39	87.8
11	5763	0.32	0.84	0.01	0.17	0.79	1.27	1.13	1.66	86.1
12	3519	0.42	0.97	0.02	0.27	1.02	1.49	1.46	1.96	84.9

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

² 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.