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Abbreviations

d	deciduous decayed teeth
m	deciduous missing teeth
f	deciduous filled teeth
dmft	deciduous decayed, missing and filled teeth
D	permanent decayed teeth
M	permanent missing teeth
F	permanent filled teeth
DMFT	permanent decayed, missing and filled teeth
SD	standard deviation

Purpose of this report

This report continues the series of annual reports providing descriptive statistics concerning child dental health in the Northern Territory, and follows the 2000 report. The report contains tables describing the age and sex of children in the sample, their deciduous and permanent caries experience, frequency of fissure sealants, immediate treatment needs, history of school dental service examinations, caries experience of Indigenous and non-Indigenous children, and regional variations in caries experience.

The report also presents selected trends where available for the 5-year period between 1997 and 2001. However, it should be noted that no formal hypothesis tests have been undertaken and difference between years are intended as a guide to the reader rather than a statistical evaluation of trends.

Sampling

The data used for this report were collected during the 2001 calendar year from Northern Territory School Dental Service patients by dental therapists and dentists. A random sampling procedure was used to select approximately one in two (1:1.9) patients living in the Darwin area. In addition, all examined children from other areas were included in the sampling frame. The Darwin sampling procedure was achieved by selecting those children whose birthday was between the 1st and 16th (inclusive) of any month. Provision was also made for inclusion and numerical weighting of data from children whose date of birth was unknown.

The Estimated Resident Population (ERP) of 5-9-year-olds and 10-14-year-olds by Health Areas within the Northern Territory was determined from data available from the Australian Bureau of Statistics as at 30 June 2001. The four areas comprising Operations North (Darwin Urban, Darwin Rural, East Arnhem and Katherine) and the three areas comprising Operations Central (Barkly, Alice Springs Rural, Alice Springs Urban) were matched with the boundaries of Statistical Local Areas from which ERPs could be determined. Assignment of Health Areas to all unit records was based on the location of the clinic that a child attended. A map showing the Health Areas of the Northern Territory is presented in Figure 1.

Up to 50 percent of the data on sampled children was lost in transit between the Northern Territory and Adelaide, prior to processing, meaning that the effective sample was greatly diminished in 2001 compared to recent samples. The actual number of children sampled in comparison to the Estimated Resident Population in the Northern Territory according to the sampling frame by Health Area is shown in Figure 2.

Because the School Dental Service in the Northern Territory predominantly serves primary school children, it is expected that the numbers of 10-14-year-old children sampled would be substantially lower than the ERP of this age group in the Northern Territory. Nonetheless, the pattern shown for 5-9-year-olds is repeated, with Darwin Urban, Katherine and Alice Springs Urban sampling higher percentages of the population in those regions than Darwin Rural, East Arnhem, Barkly and Alice Springs Rural.

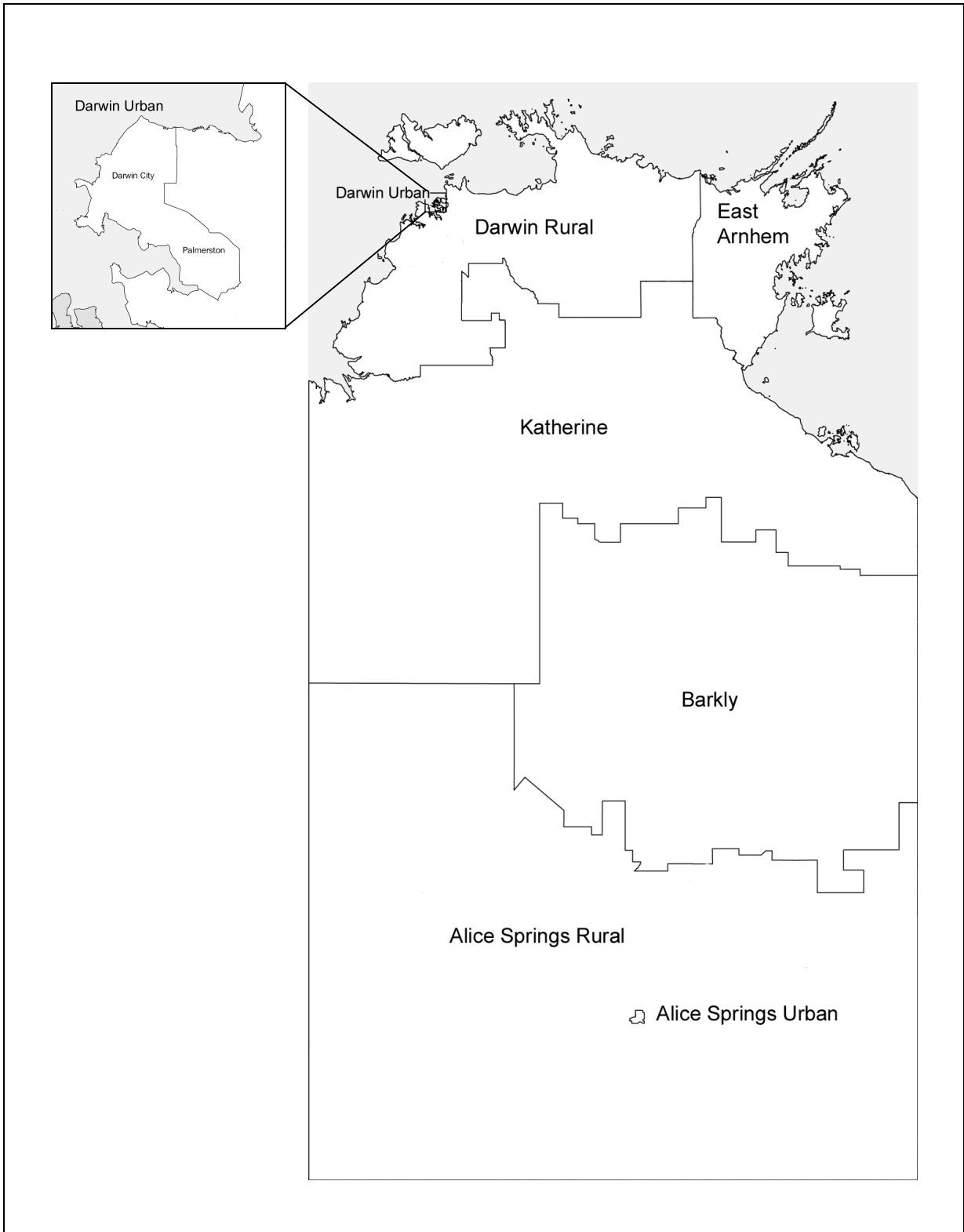


Figure 1: Northern Territory Health Areas

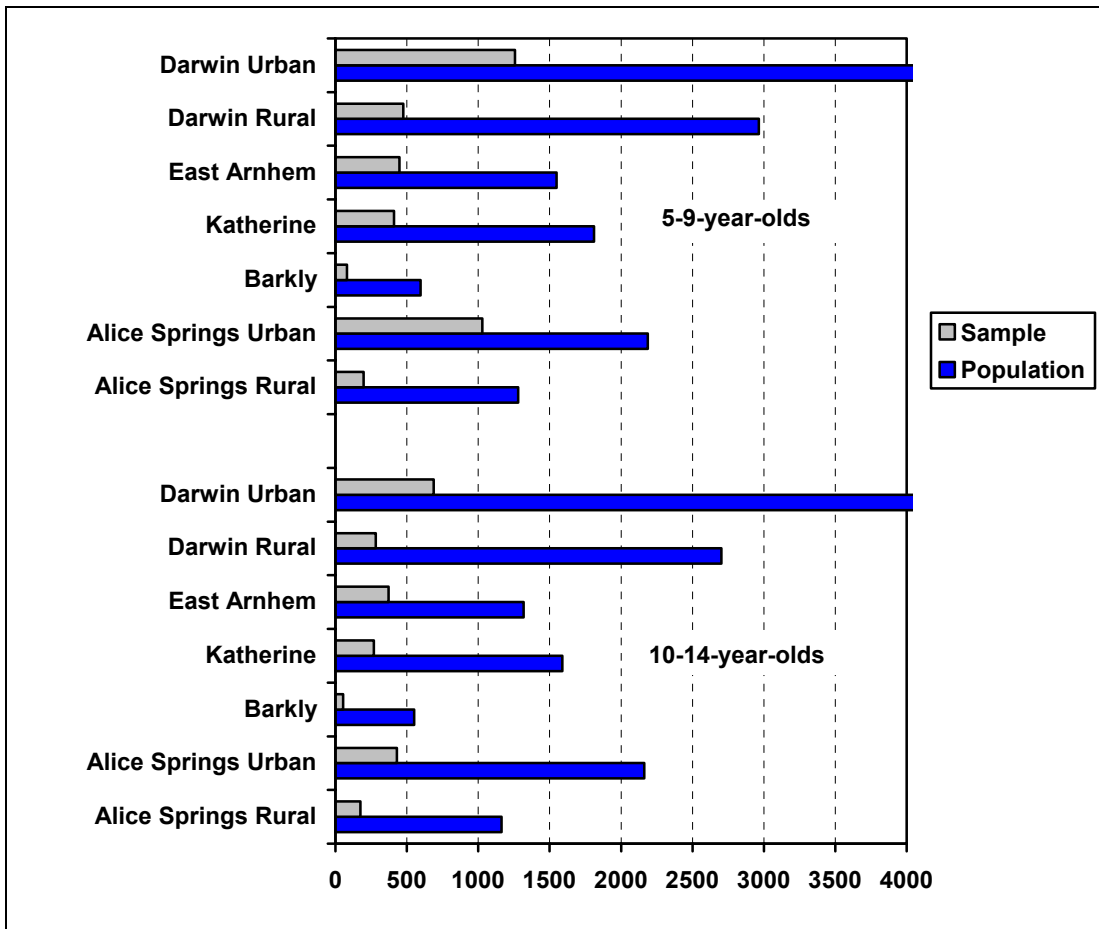
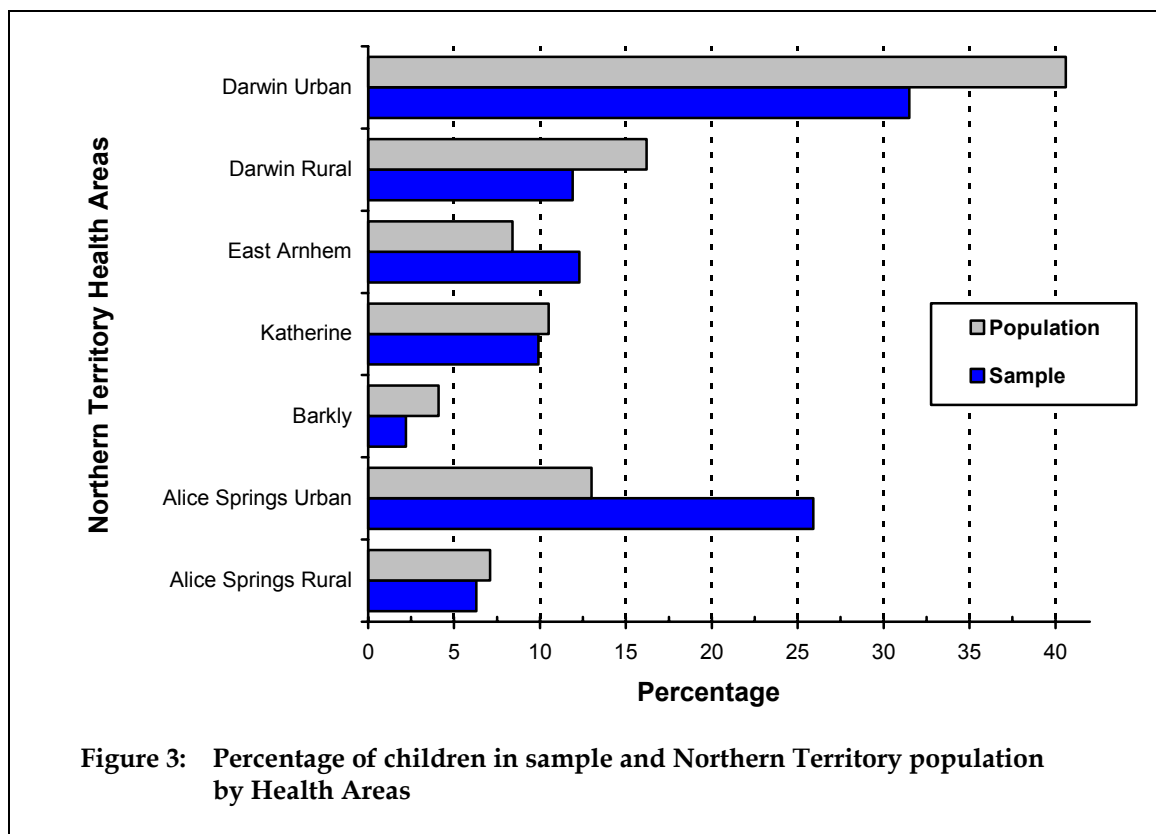


Figure 2: Estimated Resident Populations compared to actual sample obtained.

Weighting

For 2001, all data were weighted by time since last school dental service examination. This was implemented to counteract potential bias caused by the under-representation of students on longer recall schedules or who receive School Dental Service examinations less frequently for other reasons. Children on shorter recall schedules generally have poorer oral health than children on longer recall schedules. Because only the first examination in a year was used for each child sampled, children with a previous examination within a 12 month period were assigned the same weight.

Unit records were also weighted to reflect the ERP of 5-14-year-olds according to Health Areas within the Northern Territory as at 30 June 2001 as available from the Australian Bureau of Statistics.



The relative sample sizes and population estimates by Health Areas as a percentage of the total sample and Northern Territory 5-14-year-old population are shown in Figure 3. While the results of sampling were mostly consistent with ERP by regions, as a result of sampling Darwin Urban, Darwin Rural, Katherine, Barkly and Alice Springs Rural were weighted up in the analysis (mean weights = 1.29, 1.36, 1.07, 1.89 and 1.12 respectively) while East Arnhem and Alice Springs Urban received lower weights (mean weights = 0.68 and 0.50 respectively). The final unit record weights were applied to all statistics computed for Tables 2 to 10 such that the weighted contribution of each Health Area was proportional to the percentage represented by the Estimated Residential Population in the Northern Territory population.

The purpose of the weighting protocol was to produce estimates that are representative of the population covered by the School Dental Service for 2001. However, the estimates in this report cannot be applied to children who are not enrolled in the Northern Territory School Dental Service. Consequently, the results in this report do not represent the complete Northern Territory child population, but only that portion of the population that is enrolled in the Northern Territory School Dental Service. In the Northern Territory, a very high percentage of 5-12-year-olds but a much lower percentage of 13-15-year-olds are enrolled in the School Dental Service. Hence, estimates for Primary School aged children in this report may not differ substantially from estimates that would be obtained if all children in the State were surveyed, however estimates for Secondary School children may vary from those obtained if all the children in the State were surveyed.

It should be noted that all analyses use the weighted distribution of children to derive results. However, months since last visit was not used to weight the data in Tables 11 and 12 because the results included time since last visit. Also, analyses by Indigenous status (Tables 13–16) and the regional analyses in Tables 17 and 18 received no weighting. Where weighting is applied, weighted numbers are rounded to the nearest whole number for ease of interpretation.

Age-specific indices denoted with an asterisk (*) are those in which the relative standard error exceeds 40% and population estimates of these indices may be considered to be statistically unreliable.

Demographic composition of the sample

Approximately 32% of the obtained and processed records were from the Darwin area (see Table 1). The majority of children in the sample (94.4%) were aged between 4 and 12 years inclusive, with approximately equivalent numbers in individual age groups within this range. Females and males were represented in approximately similar proportions across all ages.

Table 1: Demographic composition of the sample

Age	Darwin region, known date of birth			Non-Darwin or age only known			Total number of children in sample (weighted)		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
2	7	1	8	19	8	27	23	8	31
3	10	6	16	72	88	160	60	62	122
4	124	96	220	238	253	491	332	310	642
5	116	119	235	247	216	463	347	332	679
6	106	109	215	252	239	491	327	338	666
7	131	114	245	230	233	463	354	332	686
8	131	149	280	245	248	493	377	402	780
9	117	122	239	238	227	465	382	378	761
10	128	111	239	280	269	549	421	406	827
11	113	118	231	215	230	445	338	362	700
12	100	96	196	146	161	307	285	278	563
13	19	18	37	48	53	101	79	77	157
14	2	2	4	22	29	51	27	31	58
15	3	2	5	26	17	43	27	23	50
16	2	1	3	8	7	15	12	7	18
17	0	0	0	5	2	7	4	2	6
Total	1,109	1,064	2,173	2,291	2,280	4,571	3,395	3,349	6,744

The distribution of the sample was closely related to the main target groups of children served by the School Dental Service in the Northern Territory. The distribution also illustrates that the sample was representative of primary school aged children, rather than all children in the Northern Territory. The small numbers of children aged 13 years or more resulted in less reliability of computed statistics for those ages. It should be noted that those children who are outside the main school dental service target groups may differ on key characteristics and may be less representative of their respective age groups in the Northern Territory population.

Birthplace of children and mothers

The birthplace of both the sampled child and child's mother is presented in Table 2. The majority of children (95.5%) and mothers (82.3%) were born in Australia. Very small percentages of children were born outside of Australia. A total of 5.8% of mothers were born in South East Asia and a further 7.1% were born in the United Kingdom, Ireland, or another English speaking country.

Table 2: Birthplace of children and mothers

	Children		Mothers	
	Number	%	Number	%
Australia	6,438	95.5	5,550	82.3
UK and Ireland	32	0.5	232	3.4
Other English speaking	86	1.3	248	3.7
Southern European	14	0.2	54	0.8
Other European	8	0.1	44	0.7
Middle East	2	0.0	11	0.2
South East Asia	79	1.2	392	5.8
Other Asia	23	0.3	71	1.1
Other	29	0.4	95	1.4
Not recorded	33	0.5	47	0.7

Indigenous status of children and mothers

A substantial percentage of children and mothers were of Indigenous origin, accounting for 33.2% and 31.5% of the sample respectively (see Table 3).

Table 3: Indigenous status of children and mothers

	Children		Mothers	
	Number	%	Number	%
Non-Indigenous	4,475	66.3	4,571	67.8
Indigenous	2,236	33.2	2,126	31.5
Not Known	33	0.5	47	0.7

Deciduous teeth

The mean number of clinically decayed teeth among children aged 5 to 10 years ranged from 1.53 to 0.54 and was lower among older children (see Table 4). After peaking at age 5, there was a consistent decline in clinically detectable new decay with age. In contrast, the mean number of filled teeth increased from 0.15 among children up to 4 years of age to 1.00 for 8-year-olds, before declining. The mean number of missing teeth was generally low across all age groups with mean scores peaking at 0.12 for 8-year-olds. The trend in mean dmft scores with age was similar to that for the filled score, increasing to 2.15 for 8-year-olds before decreasing to 0.26 for 12-year-olds. This decline in caries experience with age should be interpreted in view of the progressive exfoliation of deciduous teeth as children grow older.

The ratio of untreated decayed teeth to the total count of decayed, missing, and filled teeth serves as an indicator of how well a child's dental needs are being met. This is presented in Table 5 as the mean of individual children's d/dmft index. The percentage of caries experience due to decay (mean d/dmft index) showed a strong and consistent age-associated decline from 87.2% among children up to 4 years old to 38.6% among 11-year-olds. By comparison, the percentage of caries-free children (% dmft = 0) showed a more modest reduction from 64.6% among children up to 4 years of age to 41.7% among 8-year-olds, before increasing to 86.1% for 12-year-olds. The considerable increase for children from the age of 10 is a result of counting children with no deciduous teeth as having a dmft score of 0.

The ratio of untreated decayed teeth to the total count of decayed, missing, and filled teeth can also be expressed as the ratio of total decay in the population to total decayed, missing or filled teeth in the population (d/dmft ratio), and this is presented in Figure 4. Unlike the mean d/dmft index, the d/dmft ratio refers to the proportion of teeth with caries in the population. Thus, the ratio for 6-year-olds indicates that, among 100 teeth with caries experience among 6-year-olds, 62.0% had untreated

Table 4: Deciduous dentition – decayed, missing and filled teeth by age

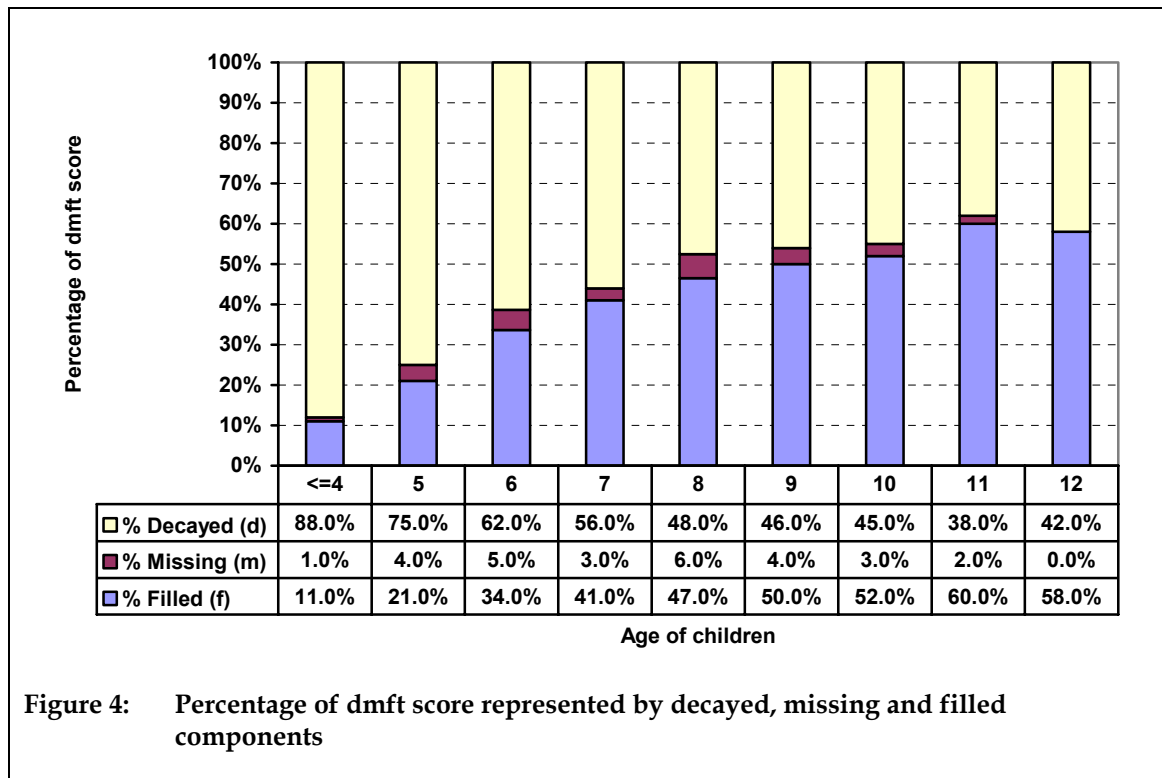
Age	Children <i>n</i>	Decayed (d)		Missing (m)		Filled (f)		dmft	
		mean	SD	mean	SD	mean	SD	mean	SD
≤4	794	1.20	2.37	0.02*	0.27*	0.15	0.79	1.37	2.54
5	679	1.53	2.49	0.08	0.60	0.42	1.11	2.03	2.97
6	666	1.21	2.12	0.09	0.57	0.66	1.49	1.96	2.86
7	686	1.17	2.03	0.06	0.29	0.86	1.65	2.09	2.77
8	780	1.03	1.90	0.12	0.60	1.00	1.67	2.15	2.74
9	761	0.79	1.46	0.07	0.49	0.86	1.56	1.72	2.28
10	827	0.54	1.16	0.03	0.25	0.62	1.27	1.19	1.88
11	700	0.22	0.69	0.01	0.10	0.35	0.89	0.58	1.18
12	563	0.11	0.46	0.00	0.03*	0.15	0.56	0.26	0.78

* relative standard error ≥ 40%

Table 5: Deciduous dentition - caries experience indices by age

Age	Mean d/dmft index		dmft = 0	
	<i>n</i>	%	<i>n</i>	%
≤4	281	87.2	794	64.6
5	337	75.4	679	50.3
6	351	61.4	666	47.2
7	373	55.5	686	45.6
8	455	48.2	780	41.7
9	397	49.4	761	47.8
10	350	48.3	827	57.7
11	185	38.6	700	73.6
12	78	40.3	563	86.1

decay. The d/dmft ratio shows a similar pattern to that of the mean dmft index, with the percentage d/dmft reducing across increasingly older age groups, declining from 88.0% for the youngest children to 38.0% among 11-year-olds. The percentage of dmft accounted for by filled teeth shows the opposite trend, increasing from 11.0% for children aged up to including 4 years old to 60.0 for 10-year-olds.



Permanent teeth

The mean number of clinically decayed permanent teeth was consistently smaller than the mean number of decayed deciduous teeth, and increased across the range of 6 to 14 years from 0.06 to 1.63 (Table 6). The number of teeth missing due to caries remained low across most ages. The mean number of filled permanent teeth ranged from 0.01 for children aged 6 to 0.58 for the oldest age group. In addition, the mean DMFT increased quite consistently across age groups, from 0.08 for 6-year-olds to 2.22 for children aged ≥ 16 . The mean DMFT score for 12-year-old children was 0.73, a reduction of almost 25% from 2000.

The percentage of children with no clinically detectable caries (DMFT = 0) generally declined across age groups (see Table 7) while the percentage of DMFT due to decay (mean D/DMFT index) declined from 98.7% for 5-year-olds to 46.4% for 14-year-olds, before increasing for the two oldest age groups. For children aged 13 or less more than 60% of children in any age group had no caries experience in the permanent dentition.

The D/DMFT ratio, which refers to the proportion of teeth with caries experience in the population having untreated decay, declined from 75.0% for 6-year-olds to 47.0% for 12-year-olds, increasing to 82.0% for 14-year-olds, before declining again (Figure 5).

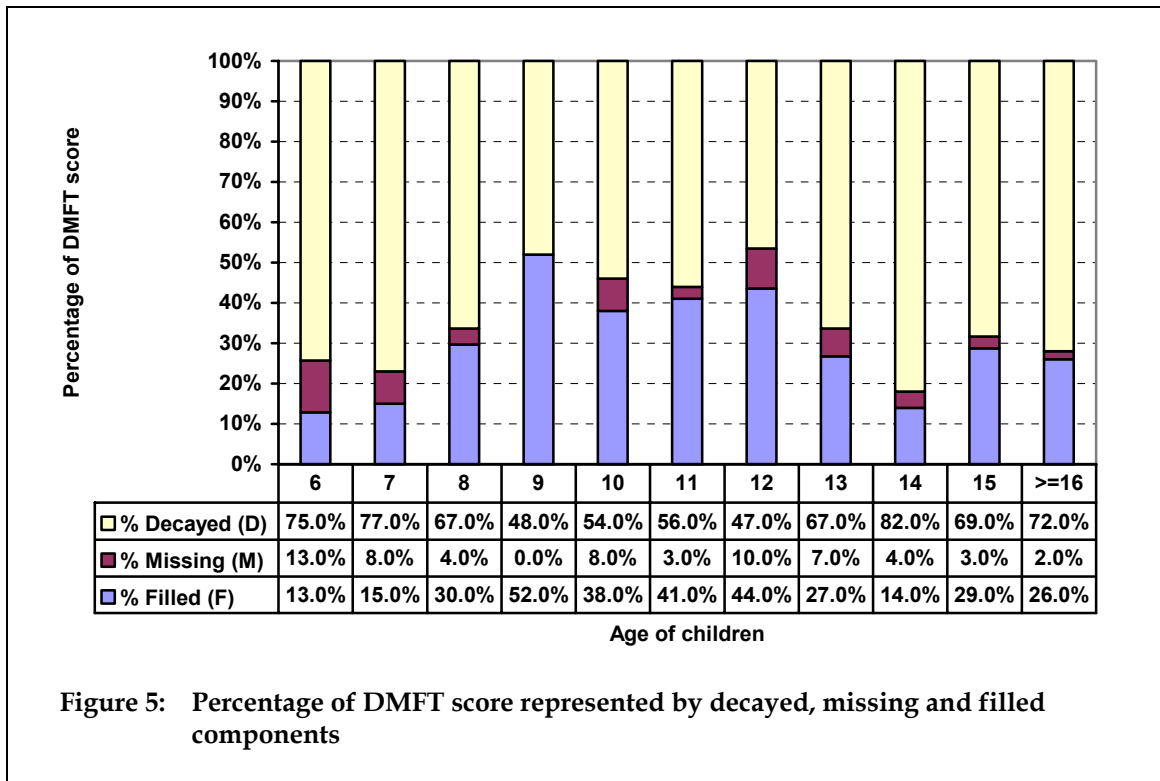
Table 6: Permanent dentition –decayed, missing and filled teeth by age

Age	Children <i>n</i>	Decayed (D)		Missing (M)		Filled (F)		DMFT	
		mean	SD	mean	SD	mean	SD	mean	SD
5	679	0.03	0.29	–	–	0.00	0.08*	0.03*	0.34*
6	666	0.06	0.34	0.01*	0.13*	0.01*	0.10*	0.08	0.39
7	686	0.10	0.40	0.00	0.10*	0.02	0.21	0.13	0.48
8	780	0.18	0.59	0.01*	0.18*	0.08	0.36	0.27	0.74
9	761	0.14	0.51	0.00	0.07*	0.15	0.50	0.29	0.74
10	827	0.27	0.77	0.04	0.34	0.19	0.58	0.50	1.05
11	700	0.33	0.93	0.02	0.23	0.24	0.62	0.59	1.18
12	563	0.34	0.88	0.07	0.52	0.32	0.79	0.73	1.33
13	157	0.60	1.31	0.06*	0.41*	0.24	0.72	0.90	1.54
14	58	1.63	2.97	0.08*	0.32*	0.27	0.65	1.98	3.06
15	50	1.01	1.74	0.04*	0.24*	0.42*	1.31*	1.47	2.52
≥ 16	24	1.60*	3.30*	0.08*	0.37*	0.58*	1.29*	2.22	3.90

* relative standard error $\geq 40\%$

Table 7: Permanent dentition - caries experience indices by age

Age	Mean D/DMFT index		DMFT = 0	
	<i>n</i>	%	<i>n</i>	%
5	9	96.1	679	98.7
6	31	79.8	666	95.4
7	57	80.7	686	91.7
8	125	68.0	780	84.0
9	134	48.0	761	82.4
10	210	54.7	827	74.6
11	209	52.2	700	70.2
12	186	48.0	563	67.0
13	56	62.7	157	64.1
14	31	72.0	58	46.4
15	24	68.2	50	51.6
≥16	10	66.1	24	59.6



All teeth

Untreated clinically detectable caries in the combined deciduous and permanent dentitions (see Table 8) existed for between 34.0% and 48.7% of children in all age groups. The greatest likelihood of untreated decay occurred for children aged 14 years old. However, the most extensive levels of untreated decay (4 or more deciduous or permanent teeth) occur in the younger age groups, with approximately 12–18% of children aged up to 7 years of age being affected to this extent. Higher levels of untreated decay were also apparent for children aged 14 and 16 and older.

More than 93% of children had no deciduous or permanent teeth missing due to caries. However, smaller percentages avoided fillings with between 16.7% and 38.8% of children in any age group having at least one filling. There was a decline in the percentage of children with no clinically detectable caries experience in either the deciduous or permanent dentition, from 94.6% up to age 4 to 38.7% at age 8. Above the age of 8, the percentage increased to a high of 59.1% for 13-year-olds.

Table 8: All teeth – age-specific caries experience

Age	Children <i>n</i>	d+D =						m+M = 0	f+F = 0	dmft+ DMFT = 0
		0	1	2	3	4	5+			
		%	%	%	%	%	%	%	%	%
≤4	794	67.6	8.1	7.0	3.5	3.9	10.0	98.9	94.4	94.6
5	679	56.9	10.2	8.8	5.7	6.0	12.3	97.1	82.6	49.9
6	666	57.7	12.9	10.8	6.2	4.8	7.7	96.3	73.2	45.9
7	686	57.3	13.7	10.1	6.3	4.3	8.4	95.2	68.2	43.3
8	780	56.3	17.4	9.7	5.2	4.2	7.2	93.8	61.2	38.7
9	761	61.5	16.3	9.8	4.5	2.8	5.1	96.3	63.6	42.1
10	827	62.9	19.2	7.6	4.1	2.4	3.8	96.2	68.1	45.9
11	700	73.2	12.5	8.1	2.5	2.0	1.6	97.3	70.7	52.8
12	563	76.0	12.9	5.4	4.0	0.6*	1.1	97.3	74.2	57.7
13	157	71.6	11.0	6.4	5.7	2.3*	2.9*	97.0	83.3	59.1
14	58	51.3	11.4	14.0	7.1*	6.0*	10.2	92.9	83.1	43.9
15	50	59.4	8.0*	20.4	4.8*	1.1*	6.4*	96.9	78.1	47.5
≥16	24	61.5	2.3*	17.0*	4.6*	0.0	15.0*	94.4	74.0	51.6

* relative standard error ≥ 40%

Fissure sealants

Fissure sealants increased in prevalence for children up to 11 years of age, before decreasing (see Table 9). There was evidence of preferential use of fissure sealants among those with caries experience: children aged between 7 and 13 years old with some caries experience (DMFT = 1+) were between 3.3% and 134.5% more likely to have fissure sealants than were children with DMFT = 0.

Table 9: Fissure sealants – age-specific experience

Age	Children <i>n</i>	Sealants		Children with sealants			
				DMFT = 0		DMFT ≥ 1	
		mean	SD	<i>n</i>	%	<i>n</i>	%
6	666	0.11	0.62	635	2.7	31	23.9
7	686	0.40	1.10	629	11.9	57	27.9
8	780	0.75	1.44	655	23.8	125	24.6
9	761	0.93	1.53	627	28.1	134	52.0
10	827	1.12	1.64	616	31.9	210	51.9
11	700	1.14	1.65	491	34.2	209	48.1
12	563	1.12	1.84	377	31.0	186	47.0
13	157	1.20	2.31	100	26.8	56	44.7
14	58	0.37	1.05	27	10.7	31	23.4
15	50	0.45	1.15	26	18.7	24	16.9
≥16	24	0.14*	0.65*	15	0.0	10	12.0*

* relative standard error ≥ 40%

Immediate treatment needs

Details of immediate treatment needs are shown in Table 10. This classification is accorded to children who have, or who are likely to develop within four weeks, oral pain or infection. Immediate treatment needs were infrequent in the key age groups (5 to 12 years). Fewer than 3.5% of children in this age range required immediate treatment, with the percentages across age groups ranging from 1.8% to 3.4%. The small group of children with immediate treatment needs had a high mean dmft experience.

Table 10: Immediate treatment needs: age-specific distribution

Age	Children		dmft		DMFT		d+D =				
							0	1	2	3	4+
	<i>n</i>	%	Mean	SD	Mean	SD	%	%	%	%	%
5	17	2.5	4.88	3.57	–	–	0.0	16.8*	16.4*	20.9*	45.9
6	12	1.9	4.77	2.04	0.31*	0.68*	0.0	8.5*	18.7*	8.5*	64.3
7	16	2.3	3.38	1.81	0.42	0.67	10.1*	7.5*	25.4	35.3	21.7*
8	25	3.3	5.33	3.54	1.13	1.42	9.9*	14.3*	0.0	4.2*	71.6
9	19	2.5	3.49	3.63	0.79	1.04	13.5*	34.0	6.8*	12.4*	33.2
10	24	2.9	2.60	2.48	1.62	1.59	6.3*	39.8	13.4*	11.5*	28.9
11	13	1.8	1.12	1.11	1.53	1.86	5.4*	8.1*	75.7	0.0	10.9*
12	19	3.4	0.20	0.63*	2.29	1.59	26.8	31.0	21.2	10.3*	10.7*
13	3	1.6*	–	–	5.60*	4.10*	0.0	19.3*	0.0	0.0	80.7
14	3	6.0*	–	–	7.75	5.61	0.0	0.0	40.8*	0.0	59.2
15	1	2.8*	–	–	8.00	–	0.0	0.0	0.0	0.0	100.0
≥16	1	2.8*	–	–	18.00	–	0.0	0.0	0.0	0.0	100.0

* relative standard error ≥ 40%

School Dental Service examinations

Table 11 describes the percentage of examinations of children that were initial or non-initial examinations in the Northern Territory School Dental Service. As expected, the percentage of children having initial examinations was highest for the youngest ages (6 years or less) with less than 10% of the examinations of those aged 8 years or older being initial examinations. This pattern is expected and indicates that most patients are enrolled during their early school years.

Table 12 refers only to children with known previous examinations and indicates their distribution according to time since last dental examination. Between the ages of 5 and 12 there was a general decline in the percentages of children having received an examination within a year of their previous examination, from 59.1% to 32.2%. About one third of children had been examined last within a 13 to 18 month period. Overall, only about a quarter of children were examined more than 18 months since their previous examination, although among older age groups this became increasingly common. Mean examination intervals ranged from just over one year (12.57 months) for the youngest children to over two years (24.17 months) for children aged 14 years.

Table 11: School Dental Service examinations – age-specific distribution

Age	Children examined	Previous examination in School Dental Service		
		No	Yes	Unknown
	<i>n</i>	%	%	%
≤4	891	51.8	22.2	26.0
5	807	19.6	53.6	26.7
6	740	9.7	67.8	22.4
7	752	6.3	76.0	17.7
8	844	5.5	80.6	13.9
9	763	7.9	79.1	13.0
10	818	5.3	77.9	16.7
11	712	4.9	81.5	13.6
12	582	3.9	83.2	12.9
13	158	1.3*	86.2	12.5
14	56	7.8*	73.5	18.7
15	48	7.8*	72.5	19.7
≥16	24	8.3*	61.3	30.5

Table 12: School Dental Service examinations - time since last visit

Age	Children	Months since last visit					mean	SD
		0-6	7-12	13-18	19-24	25+		
	<i>n</i>	%	%	%	%	%		
≤4	198	29.2	31.2	21.9	7.4	10.3	12.57	7.65
5	433	10.7	48.4	32.1	5.5	3.4	12.99	6.22
6	502	6.3	42.6	35.3	11.9	3.9	13.98	5.36
7	571	4.9	41.0	35.9	12.2	5.9	14.58	6.27
8	681	4.8	36.3	38.5	13.4	7.1	15.24	7.22
9	604	4.3	33.4	37.2	11.9	13.3	16.87	9.38
10	637	3.0	31.1	35.3	16.0	14.6	17.62	9.62
11	580	3.7	34.0	35.8	16.2	10.3	16.45	8.23
12	485	2.5	29.7	42.0	15.0	10.8	17.19	10.47
13	136	4.2	21.0	41.2	10.7	22.9	19.23	10.11
14	41	6.8*	17.1	34.8	4.1*	37.2	24.17	16.94
15	35	15.7	31.2	16.6	0.0	36.6	23.36	19.04
≥16	15	14.0*	9.3*	29.0	0.0	47.7	21.66*	12.24*

* relative standard error ≥ 40%

Deciduous teeth of non-Indigenous and Indigenous children

Tables 13 and 14 describe the age-specific indices of deciduous caries experience for non-Indigenous and Indigenous children respectively. Indigenous children up to the age of 10 years old had between 2 and 5 times more clinically detectable decay and dmft scores 1½ to 3½ times higher than non-Indigenous children. Non-Indigenous children had a higher mean filled score for all age groups bar one, however. Considerably fewer Indigenous children were found to have had no history of caries experience. In addition, the percentage of the dmft index attributed to decay (mean d/dmft index) was substantially higher among Indigenous children.

Table 13: Deciduous teeth – age-specific caries experience of non-Indigenous children

Age	Children <i>n</i>	Decayed (d)		Missing (m)		Filled (f)		dmft		d/dmft	dmft = 0
		mean	SD	mean	SD	mean	SD	mean	SD	%	%
≤4	584	0.60	1.45	0.02*	0.25*	0.18	0.86	0.80	1.80	78.3	74.9
5	485	1.03	1.91	0.09	0.67	0.42	1.09	1.53	2.55	68.8	56.7
6	493	0.92	1.81	0.08	0.55	0.67	1.39	1.68	2.65	52.2	52.5
7	475	0.74	1.32	0.06	0.28	0.92	1.71	1.71	2.41	46.7	49.7
8	527	0.62	1.24	0.11	0.50	1.08	1.72	1.81	2.51	36.1	47.4
9	508	0.51	1.05	0.04	0.26	0.98	1.68	1.53	2.20	37.9	52.9
10	536	0.30	0.72	0.04	0.28	0.63	1.28	0.96	1.72	36.5	63.9
11	453	0.11	0.42	0.01*	0.12*	0.41	0.97	0.53	1.13	21.2	74.9
12	353	0.07	0.26	0.00	0.04*	0.20	0.67	0.27	0.79	27.2	84.7

* relative standard error ≥ 40%

Table 14: Deciduous teeth – age-specific caries experience of Indigenous children

Age	Children <i>n</i>	Decayed (d)		Missing (m)		Filled (f)		dmft		d/dmft	dmft = 0
		mean	SD	mean	SD	mean	SD	mean	SD	%	%
≤4	211	2.87	3.40	0.03*	0.32*	0.07*	0.53*	2.97	3.45	100.0	36.1
5	195	2.78	3.24	0.05*	0.38*	0.42	1.16	3.25	3.55	86.3	34.4
6	172	2.03	2.66	0.11*	0.62*	0.63	1.73	2.77	3.27	80.0	32.2
7	211	2.14	2.86	0.06	0.31	0.74	1.51	2.94	3.30	71.3	36.3
8	253	1.86	2.62	0.15	0.77	0.84	1.55	2.85	3.04	67.1	29.7
9	253	1.36	1.92	0.12	0.77	0.62	1.25	2.10	2.40	66.9	37.6
10	291	0.99	1.61	0.02*	0.17*	0.59	1.24	1.60	2.09	62.9	46.2
11	247	0.43	0.98	0.01*	0.08*	0.23	0.72	0.66	1.27	66.2	71.2
12	210	0.18	0.67	–	–	0.05	0.26	0.23	0.76	69.6	88.5

* relative standard error ≥ 40%

Permanent teeth of non-Indigenous and Indigenous children

Differences in permanent caries experience among non-Indigenous and Indigenous children are comparable to the profile in the deciduous dentition (see Tables 15 and 16). Indigenous children had a higher mean number of clinically decayed permanent teeth and a higher mean DMFT score. Indigenous children also had a higher percentage of caries experience attributed to decay (D/DMFT) and lower percentages of children with no caries experience in their permanent dentition (DMFT = 0).

Table 15: Permanent teeth – age-specific caries experience of non-Indigenous children

Age	Children <i>n</i>	Decayed (D)		Missing (M)		Filled (F)		DMFT		D/DMFT	DMFT=0
		mean	SD	mean	SD	mean	SD	mean	SD	%	%
5	485	0.00	0.05*	–	–	–	–	0.00	0.05*	100.0	99.7
6	493	0.06	0.35	0.01*	0.15*	0.01*	0.12*	0.08	0.42	72.2	95.5
7	475	0.09	0.36	0.01*	0.12*	0.03	0.20	0.12	0.44	75.7	91.4
8	527	0.12	0.42	0.01*	0.10*	0.09	0.39	0.22	0.63	58.5	86.3
9	508	0.06	0.29	0.00	0.05	0.15	0.52	0.21	0.58	32.7	86.0
10	536	0.19	0.64	0.04	0.40	0.20	0.60	0.44	0.97	43.7	76.5
11	453	0.19	0.58	0.02*	0.25*	0.25	0.60	0.46	0.92	39.7	73.9
12	353	0.19	0.56	0.08	0.61	0.33	0.82	0.60	1.16	38.4	70.7
13	65	0.28	0.76	0.12*	0.62*	0.39	0.99	0.79	1.36	40.6	67.3
14	13	0.32*	0.68*	–	–	0.65	0.81	0.97	1.41	20.8*	53.9
15	10	0.04*	0.21*	–	–	0.41*	0.79*	0.45*	0.91*	4.9*	71.7
≥16	6	–	–	–	–	–	–	–	–	–	100.0

* relative standard error ≥ 40%

Table 16: Permanent teeth – age-specific caries experience of Indigenous children

Age	Children <i>n</i>	Decayed (D)		Missing (M)		Filled (F)		DMFT		D/DMFT	DMFT=0
		mean	SD	mean	SD	mean	SD	mean	SD	%	%
5	195	0.09*	0.53*	–	–	0.01*	0.15*	0.10*	0.62*	95.4	96.1
6	172	0.06	0.31	–	–	–	–	0.06	0.31	100.0	95.1
7	211	0.11	0.46	–	–	0.02*	0.25*	0.13	0.56	93.4	92.4
8	253	0.31	0.83	0.02*	0.29*	0.05	0.29	0.38	0.92	81.2	79.2
9	253	0.31	0.77	0.00	0.09*	0.15	0.46	0.46	0.96	65.4	75.3
10	291	0.42	0.93	0.02*	0.19*	0.16	0.55	0.61	1.18	71.1	71.0
11	247	0.58	1.31	0.03	0.17	0.22	0.67	0.83	1.52	68.6	63.2
12	210	0.60	1.20	0.05*	0.31*	0.31	0.72	0.96	1.54	60.1	60.7
13	92	0.83	1.55	0.01*	0.12*	0.14	0.42	0.98	1.66	76.1	61.9
14	44	2.03	3.28	0.11*	0.36*	0.16*	0.56*	2.29	3.36	84.8	44.1
15	39	1.27	1.87	0.05*	0.27*	0.42*	1.42*	1.74	2.74	77.0	46.3
≥16	19	2.00*	3.70*	0.11*	0.43*	0.76*	1.44*	2.91	4.26	66.1	47.0

* relative standard error ≥ 40%

Caries experience by geographical location

Table 17 presents caries experience data for each of the Health Areas used in this report. Considerable variation can be seen in caries experience for both selected age-groups across geographical areas. Among 5- and 6-year-old children, mean clinically detectable decay scores ranged from lows of 1.05, 1.06 and 1.06 in Darwin Urban, East Arnhem and Alice Springs respectively to 2.17 in Katherine. Teeth missing due to caries were uncommon in most areas, ranging from 0.03 in Alice Springs Urban to 0.17 in East Arnhem and Katherine. The number of filled teeth was lowest in the Alice Springs Rural and East Arnhem areas (means = 0.10 and 0.38 respectively) with the highest score being in Alice Springs Urban (mean = 0.79). Mean dmft scores in the deciduous dentition ranged from 1.62 in East Arnhem to 2.93 in Katherine. The percentage of children with dmft = 0 was highest in East Arnhem (56.4%) and lowest in the Darwin Rural (35.5%) Health Area.

Table 17: Deciduous caries experience of 5–6-year-old children by area

	Children <i>n</i>	Decayed (d)		Missing (m)		Filled (f)		dmft		dmft = 0
		mean	SD	mean	SD	mean	SD	mean	SD	%
Darwin Urban	477	1.05	1.96	0.06	0.52	0.68	1.32	1.78	2.68	50.7
Darwin Rural	183	2.12	2.68	0.13	0.80	0.58	1.26	2.84	3.21	35.5
East Arnhem	172	1.06	2.17	0.17	0.68	0.38	1.20	1.62	2.59	56.4
Katherine	133	2.17	3.32	0.17	0.85	0.59	1.43	2.93	3.81	37.6
Barkly	28	1.21	2.22	0.14	0.59	0.61	2.36	1.96	3.14	50.0
Alice Springs Urban	375	1.06	1.87	0.03	0.34	0.79	1.69	1.87	2.91	50.9
Alice Springs Rural	79	1.92	2.36	0.10	0.71	0.10	0.50	2.13	2.40	38.0

Only a small number of cases were available for 12-year-olds from Barkly and therefore these results are not likely to be representative of the caries experience of 12-year-olds in this region (see Table 18). Among 12-year-old children from the remaining areas, East Arnhem had the highest mean decay score (mean = 0.71) and this was approximately 7 times higher than that in Darwin Urban (mean = 0.10). The number of filled teeth ranged from a mean of 0.16 in East Arnhem to 0.52 in Darwin Rural. The lowest mean DMFT score among 12-year-olds was in Alice Springs Urban (mean = 0.36) which also had the highest percentage of children with DMFT = 0 (82.0%). The lowest percentage of children with DMFT = 0 was in Darwin Rural (60.0%) while DMFT scores were highest in East Arnhem (mean = 0.91).

Table 18: Permanent caries experience of 12-year-old children by area

	Children	Decayed (D)		Missing (M)		Filled (F)		DMFT		DMFT = 0
	<i>n</i>	mean	SD	mean	SD	mean	SD	mean	SD	%
Darwin Urban	179	0.26	0.66	0.11	0.68	0.32	0.79	0.69	1.27	67.0
Darwin Rural	75	0.33	0.76	0.03	0.23	0.52	1.01	0.88	1.31	60.0
East Arnhem	93	0.71	1.47	0.04	0.25	0.16	0.54	0.91	1.73	65.6
Katherine	67	0.31	1.00	0.01	0.12	0.46	0.88	0.79	1.34	64.2
Barkly	6	0.50	0.84	0.00	0.00	0.00	0.00	0.50	0.84	66.7
Alice Springs Urban	50	0.10	0.36	0.08	0.57	0.18	0.52	0.36	0.92	82.0
Alice Springs Rural	33	0.52	1.09	0.03	0.17	0.21	0.60	0.76	1.32	69.7

Selected trends, 1997–2001

Presented below is a table and a series of figures of selected 5-year trends across the period 1991–2001. Trends are provided for sample size, deciduous and permanent caries experience, fissure sealants and time since last visit.

Table 19: Sample size and percentage of total sample by region, 1997–2001

Region	1997		1998		1999		2000		2001	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Darwin Urban	4880	37.7	4405	35.5	4471	35.0	5324	36.6	2124	31.5
Darwin Rural	1753	13.6	1491	12.0	1364	10.7	1896	13.0	803	11.9
East Arnhem	376	2.9	414	3.3	710	5.6	687	4.7	832	12.3
Katherine	2250	17.4	1533	12.4	1986	15.6	2214	15.2	664	9.9
Barkly	194	1.5	408	3.3	234	1.8	321	2.2	147	2.2
Alice Springs Urban	2845	22.0	3257	26.2	3419	26.8	3254	22.4	1747	25.9
Alice Springs Rural	630	4.9	903	7.3	576	4.5	835	5.7	424	6.3
<i>Total</i>	<i>12928</i>	<i>100.0</i>	<i>12411</i>	<i>100.0</i>	<i>12760</i>	<i>100.0</i>	<i>14531</i>	<i>100.0</i>	<i>6741</i>	<i>100.0</i>

