



# **The Child Dental Health Survey Northern Territory 1998**

---

**AIHW Dental Statistics and Research Unit  
Adelaide University**

---

**AIHW Catalogue No. DEN 81**

---

**AIHW Dental Statistics and Research Unit  
Adelaide University  
SOUTH AUSTRALIA 5005**

---

**Phone: (08) 8303 4051  
Fax: (08) 8303 4858**

---

The Australian Institute of Health and Welfare (AIHW) is Australia's national health and welfare statistics and information agency, and is part of the Commonwealth's Health and Aged Care portfolio. The Institute's mission is to improve the health and well-being of Australians by informing community discussion and decision making through national leadership in developing and providing health and welfare statistics and information.

The AIHW Dental Statistics and Research Unit (DSRU) is a collaborative unit of the AIHW established in 1988 at The University of Adelaide. The DSRU aims to improve the oral health of Australians through the collection, analysis and reporting of dental statistics and research on the dental workforce, dental health status, dental practices and the use of dental services.

### **Suggested citation**

AIHW Dental Statistics and Research Unit (2001). *Child Dental Health Survey, Northern Territory 1998*.

### **Acknowledgments**

These data were collected in collaboration with the dental authorities in the Northern Territory. The support of the service and their staff was crucial to the successful collection of data for this survey.

### **DSRU Staff:**

|                         |                                                       |
|-------------------------|-------------------------------------------------------|
| Director:               | Professor John Spencer                                |
| Deputy Director:        | Dr Kaye Roberts-Thomson                               |
| Senior Research Fellow: | Dr David Brennan                                      |
| Research Officers:      | Mr Jason Armfield                                     |
|                         | Mr Knute Carter                                       |
|                         | Dr Jane Chalmers                                      |
|                         | Ms Liana Luzzi                                        |
|                         | Mrs Judy Stewart                                      |
|                         | Ms Dana Teusner                                       |
| Research Associate:     | Ms Kelly Jones                                        |
| General Staff:          | Mrs Leonie Jeffery                                    |
|                         | Mrs Lorna Lucas                                       |
|                         | Mrs Ruth Wass                                         |
| Consultants:            | Dr Peter Arrow                                        |
|                         | Dr Mike Morgan ( <i>University of Melbourne</i> )     |
|                         | Dr Gary Slade ( <i>University of North Carolina</i> ) |

Any comments or information relevant to the subject matter of this report would be welcome. Correspondence should be directed to:

The Director  
AIHW Dental Statistics and Research Unit  
Adelaide University  
SOUTH AUSTRALIA 5005

Tel: (08) 8303 4051  
Fax: (08) 8303 4858  
E-mail: [aihw.dsru@adelaide.edu.au](mailto:aihw.dsru@adelaide.edu.au)  
Website: <http://www.adelaide.edu.au/socprev-dent/dsru>

# CONTENTS

|                                                                 |    |
|-----------------------------------------------------------------|----|
| Purpose of this report .....                                    | 1  |
| Sampling and data analysis .....                                | 1  |
| Demographic composition of the sample .....                     | 4  |
| Birthplace of children and mothers .....                        | 5  |
| Indigenous status of children and mothers .....                 | 5  |
| Deciduous teeth: age-specific caries experience .....           | 6  |
| Permanent teeth: age-specific caries experience .....           | 7  |
| All teeth: age-specific experience .....                        | 9  |
| Fissure sealants: age-specific experience .....                 | 10 |
| Immediate treatment needs .....                                 | 10 |
| School Dental Service examinations .....                        | 11 |
| Percentage of children with dmft=0, DMFT=0 and d+D=4+ .....     | 13 |
| Deciduous teeth of non-Indigenous and Indigenous children.....  | 14 |
| Permanent teeth of non-Indigenous and Indigenous children ..... | 15 |
| Caries experience by geographical location .....                | 16 |

## Tables

|                                                                               |   |
|-------------------------------------------------------------------------------|---|
| Table 1: Demographic composition of the sample .....                          | 4 |
| Table 2: Birthplace of children and mothers.....                              | 5 |
| Table 3: Indigenous status of Australian-born children and mothers.....       | 6 |
| Table 4: Deciduous dentition – decayed, missing and filled teeth by age ..... | 6 |
| Table 5: Deciduous dentition – caries experience by age .....                 | 7 |
| Table 6: Permanent dentition – decayed, missing and filled teeth by age.....  | 8 |
| Table 7: Permanent dentition – caries experience by age .....                 | 8 |

|                                                                                             |    |
|---------------------------------------------------------------------------------------------|----|
| Table 8: All teeth – age-specific experience .....                                          | 9  |
| Table 9: Fissure sealants – age-specific experience.....                                    | 10 |
| Table 10: Immediate treatment needs – age-specific experience .....                         | 11 |
| Table 11: School Dental Service examinations – age-specific distribution.....               | 12 |
| Table 12: School Dental Service examinations – time since last visit.....                   | 12 |
| Table S1: Deciduous teeth – age-specific caries experience of non-Indigenous children ..... | 14 |
| Table S2: Deciduous teeth – age-specific caries experience of Indigenous children .....     | 14 |
| Table S3: Permanent teeth – age-specific caries experience of non-Indigenous children ..... | 15 |
| Table S4: Permanent teeth – age-specific caries experience of Indigenous children.....      | 15 |
| Table S5: Deciduous caries experience of 5–6-year-old children by area .....                | 16 |
| Table S6: Permanent caries experience of 12-year-old children by area .....                 | 17 |

## Figures

|                                                                                                      |    |
|------------------------------------------------------------------------------------------------------|----|
| Figure 1: Northern Territory Health Areas.....                                                       | 2  |
| Figure 2: Percentage of children in sample and Northern Territory population by health regions ..... | 3  |
| Figure 3: Time since last dental examination for 6- and 12-year-olds.....                            | 13 |
| Figure 4: Percentage of children with dmft=0, DMFT=0 and d+D=4+ .....                                | 13 |

# 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 1997 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 provides a brief description of the results in each table as well as a simple summary statement highlighting differences between the 1998 and 1997 findings. No formal hypothesis tests have been undertaken, and descriptions of difference between years are intended as a guide to the reader rather than an evaluation of trends.

## **Sampling and data analysis**

The data used for this report were collected during the 1998 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. The Darwin sampling procedure was achieved by selecting those children whose birthday was between the 1st and 16th (inclusive) of any month. Provision was made for inclusion and numerical weighting of data from children whose date of birth was unknown. Throughout this report, dental health statistics have been weighted during their computation to reflect the sampling procedure. The weighting procedure corrects for the over-representation of children in the sample with an unknown birth date and from outside the Darwin area.

Unit records were also weighted to reflect the Estimated Residential Population (ERP) of 5–14-year-olds according to Health Areas within the Northern Territory as at 30 June 1998 as published by the Australian Bureau of Statistics (1999). 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 which a child attended. A map showing the Health Areas of the Northern Territory is presented in Figure 1.

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 1. While the results of sampling were mostly consistent with ERP by Statistical Local Areas, as a result of sampling Darwin Urban, Darwin Rural, East Arnhem and Barkly were weighted up in the analysis (mean weights = 1.12, 1.36, 2.63 and 1.26 respectively) while Katherine, Alice Springs Urban and Alice Springs Rural received lower weights (mean weights = 0.86, 0.51 and 0.93 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.

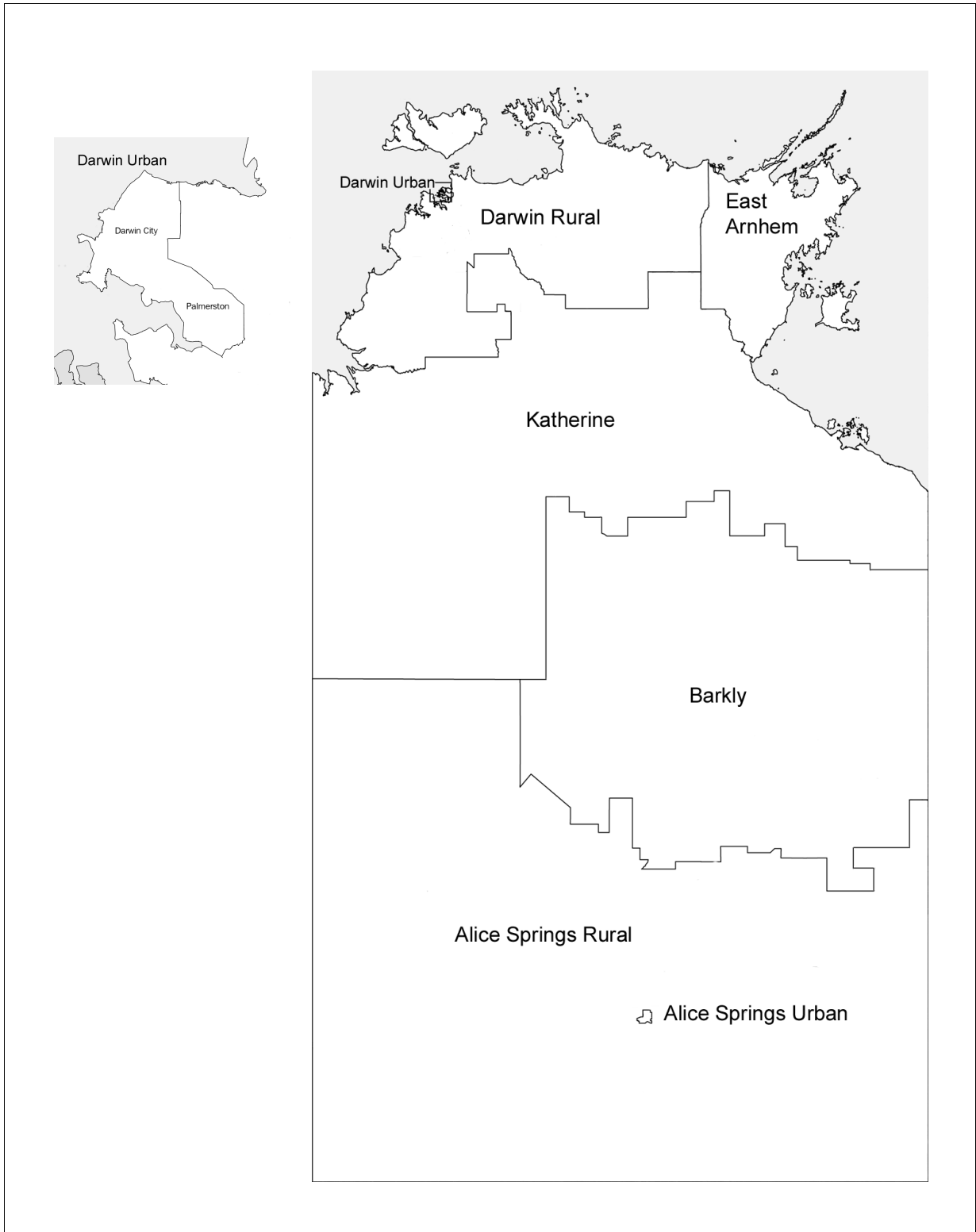


Figure 1: Northern Territory Health Areas

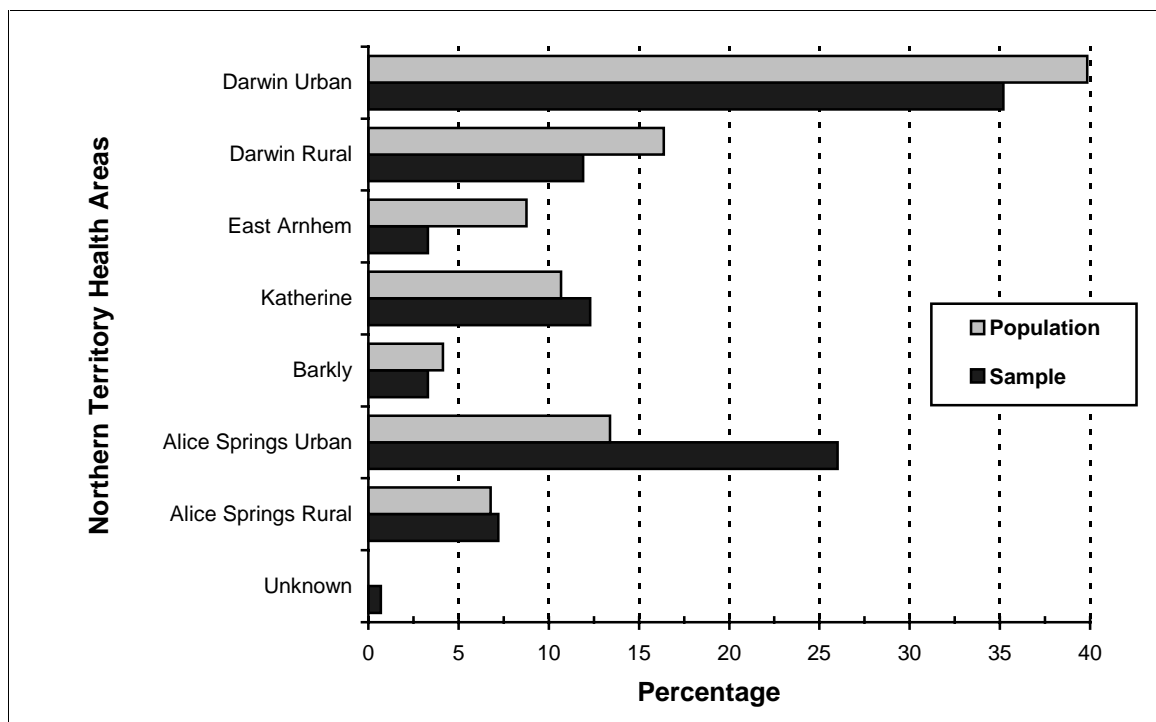


Figure 2: Percentage of children in sample and Northern Territory population by Health Areas

The intended purpose of the weighting protocol was to obtain a sample with characteristics representative of those of the student population covered by the School Dental Service for 1998. 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 S1–S4) and the regional analyses in Tables S5 and S6 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 40% of processed records were obtained from the Darwin area (see Table 1). The majority of children in the sample (93.4%) were aged between 4 and 12 years inclusive, with approximately equivalent numbers in individual age groups within this range. However, children aged 13 years or more and less than 4 years were also represented. Females and males were represented in similar proportions across all ages, although more males than females were sampled overall.

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.

### Changes since 1997

There were no substantial changes in the sampling procedures between the reporting periods. In 1998, 435 fewer records were reported on than in 1997.

**Table 1: Demographic composition of the sample**

| Age          | Darwin region,<br>known date of birth |              |              | Non-Darwin<br>or age only known |              |              | Total number of children<br>in sample (weighted) |              |               |
|--------------|---------------------------------------|--------------|--------------|---------------------------------|--------------|--------------|--------------------------------------------------|--------------|---------------|
|              | Males                                 | Females      | Persons      | Males                           | Females      | Persons      | Males                                            | Females      | Persons       |
| 1            | 0                                     | 1            | 1            | 8                               | 14           | 22           | 6                                                | 11           | 17            |
| 2            | 5                                     | 4            | 9            | 28                              | 28           | 56           | 26                                               | 29           | 55            |
| 3            | 24                                    | 19           | 43           | 65                              | 84           | 149          | 69                                               | 88           | 157           |
| 4            | 249                                   | 248          | 497          | 344                             | 333          | 677          | 517                                              | 510          | 1,027         |
| 5            | 281                                   | 283          | 564          | 438                             | 407          | 845          | 656                                              | 639          | 1,295         |
| 6            | 286                                   | 277          | 563          | 435                             | 420          | 855          | 699                                              | 700          | 1,399         |
| 7            | 300                                   | 286          | 586          | 451                             | 415          | 866          | 714                                              | 683          | 1,397         |
| 8            | 294                                   | 283          | 577          | 449                             | 417          | 866          | 751                                              | 706          | 1,457         |
| 9            | 272                                   | 237          | 509          | 411                             | 404          | 815          | 685                                              | 641          | 1,326         |
| 10           | 287                                   | 237          | 524          | 352                             | 409          | 761          | 655                                              | 718          | 1,373         |
| 11           | 263                                   | 250          | 513          | 391                             | 364          | 755          | 690                                              | 631          | 1,320         |
| 12           | 240                                   | 21           | 461          | 218                             | 217          | 435          | 521                                              | 489          | 1,010         |
| 13           | 46                                    | 36           | 82           | 99                              | 120          | 219          | 183                                              | 189          | 372           |
| 14           | 5                                     | 5            | 10           | 41                              | 49           | 90           | 64                                               | 67           | 130           |
| 15           | 2                                     | 2            | 4            | 28                              | 48           | 76           | 44                                               | 56           | 100           |
| 16           | 0                                     | 0            | 0            | 20                              | 32           | 52           | 17                                               | 32           | 50            |
| 17           | 0                                     | 0            | 0            | 2                               | 12           | 14           | 4                                                | 10           | 14            |
| 18           | 0                                     | 1            | 1            | 0                               | 1            | 1            | 0                                                | 2            | 2             |
| 19           | 0                                     | 0            | 0            | 0                               | 1            | 1            | 0                                                | 1            | 1             |
| 20           | 0                                     | 0            | 0            | 0                               | 1            | 1            | 0                                                | 0            | 0             |
| <b>Total</b> | <b>2,554</b>                          | <b>2,390</b> | <b>4,944</b> | <b>3,780</b>                    | <b>3,776</b> | <b>7,556</b> | <b>6,302</b>                                     | <b>6,201</b> | <b>12,503</b> |

## 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 (95.8%) and mothers (83.1%) were born in Australia. Very small percentages of children were born outside of Australia. A total of 5.6% of mothers were born in SE Asia and a further 6.6% were born in the United Kingdom, Ireland, or another English speaking country.

### Changes since 1997

There were only small differences between 1998 and 1997 in the recorded birthplace of School Dental Service users and their mothers. Slightly fewer children and their mothers were born outside of Australia in 1998 compared to 1997.

**Table 2: Birthplace of children and mothers**

|                        | Children |      | Mothers |      |
|------------------------|----------|------|---------|------|
|                        | Number   | %    | Number  | %    |
| Australia              | 11,975   | 95.8 | 10,396  | 83.1 |
| UK and Ireland         | 40       | 0.3  | 410     | 3.3  |
| Other English speaking | 141      | 1.1  | 415     | 3.3  |
| Southern European      | 39       | 0.3  | 143     | 1.1  |
| Other European         | 13       | 0.1  | 103     | 0.8  |
| Middle East            | 7        | 0.1  | 19      | 0.2  |
| South East Asia        | 154      | 1.2  | 703     | 5.6  |
| Other Asia             | 34       | 0.3  | 116     | 0.9  |
| Other                  | 60       | 0.5  | 139     | 1.1  |

## Indigenous status of children and mothers

A substantial percentage of children and mothers were of Indigenous origin, accounting for 35.4% and 33.8% of the sample respectively (see Table 3).

### Changes since 1997

The percentage of Aboriginal Australian-born children and mothers increased by 8.8% and 8.7% respectively between 1997 and 1998. This may have been partly the result of changes in the weighting of data used in this report.

**Table 3: Indigenous status of Australian-born children and mothers**

|                | Children |      | Mothers |      |
|----------------|----------|------|---------|------|
|                | Number   | %    | Number  | %    |
| Non-Indigenous | 8,036    | 64.2 | 8,216   | 65.7 |
| Indigenous     | 4,427    | 35.4 | 4,229   | 33.8 |
| Not Known      | 40       | 0.4  | 58      | 0.5  |

### Deciduous teeth: age-specific caries experience

The mean number of clinically decayed teeth among children aged 5 to 10 years ranged from 1.54 to 0.52 and was lower among older children (see Table 4). There is a consistent decline in clinically detectable new decay with age. In contrast, the mean number of filled teeth increased from 0.13 among children up to 4 years of age to 0.90 for 7-year-olds, before declining. The mean number of missing teeth was generally low across all age-groups. The trend in mean dmft score with age was similar to that for the decay score, decreasing from 2.01 for 5-year-olds to 0.29 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 percentage of caries experience due to decay (d/dmft) showed a strong and consistent age-associated decline from 87.7% among children up to 4 years old to 36.3% among 11-year-olds (Table 5). By comparison, the percentage of caries-free children (% dmft=0) showed a more modest reduction from 67.0% among children up to 4 years of age to 46.8% 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.

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

| Age | Children<br><i>n</i> | Decayed (d) |      | Missing (m) |       | Filled (f) |      | dmft |      |
|-----|----------------------|-------------|------|-------------|-------|------------|------|------|------|
|     |                      | mean        | SD   | mean        | SD    | mean       | SD   | mean | SD   |
| ≤4  | 1,256                | 1.20        | 2.52 | 0.07        | 0.46  | 0.13       | 0.84 | 1.40 | 2.75 |
| 5   | 1,295                | 1.54        | 2.83 | 0.09        | 0.53  | 0.38       | 1.23 | 2.01 | 3.28 |
| 6   | 1,399                | 1.36        | 2.54 | 0.08        | 0.52  | 0.55       | 1.36 | 2.00 | 3.06 |
| 7   | 1,397                | 0.94        | 1.75 | 0.06        | 0.41  | 0.90       | 1.71 | 1.91 | 2.61 |
| 8   | 1,457                | 0.90        | 1.70 | 0.08        | 0.44  | 0.83       | 1.54 | 1.81 | 2.40 |
| 9   | 1,326                | 0.77        | 1.60 | 0.07        | 0.43  | 0.91       | 1.66 | 1.75 | 2.38 |
| 10  | 1,373                | 0.52        | 1.31 | 0.04        | 0.31  | 0.76       | 1.42 | 1.32 | 2.05 |
| 11  | 1,320                | 0.23        | 0.67 | 0.02        | 0.24  | 0.45       | 1.13 | 0.71 | 1.52 |
| 12  | 1,010                | 0.14        | 0.54 | 0.00        | 0.03* | 0.15       | 0.68 | 0.29 | 0.94 |

\* relative standard error ≥ 40%

**Table 5: Deciduous dentition – caries experience indices by age**

| Age | d/dmft   |      | dmft=0   |      |
|-----|----------|------|----------|------|
|     | <i>n</i> | %    | <i>n</i> | %    |
| ≤4  | 415      | 87.7 | 1,256    | 67.0 |
| 5   | 602      | 77.2 | 1,295    | 53.5 |
| 6   | 690      | 64.7 | 1,399    | 50.7 |
| 7   | 735      | 50.6 | 1,397    | 47.4 |
| 8   | 776      | 50.3 | 1,457    | 46.8 |
| 9   | 705      | 44.4 | 1,326    | 46.9 |
| 10  | 606      | 38.0 | 1,373    | 55.8 |
| 11  | 376      | 36.3 | 1,320    | 71.5 |
| 12  | 141      | 52.7 | 1,010    | 86.1 |

**Changes since 1997**

There were consistent and large increases in the mean number of deciduous teeth with clinically detectable decay among all age groups between 1997 and 1998. There were also large increases in dmft scores for children aged up to 7, however 8- and 9-year-olds had lower dmft scores in 1998 than in 1997. These changes resulted in an increase in the percentage of dmft scores accounted for by decay (d/dmft) in children aged up to 9 years. There were few changes in the percentage of children with dmft=0 between 1997 and 1998.

**Permanent teeth: age-specific caries experience**

As shown in Table 6, 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 15 years from 0.06 to 1.60. The number of teeth missing due to caries remained low across most ages, but increased to 0.15 for 15-year-olds. The mean number of filled permanent teeth ranged from 0.03 for children aged 7 to 0.56 for 14-year-olds. In addition, the mean DMFT increased quite consistently across age groups, from 0.07 for 6-year-olds to 1.98 for children aged 15. The mean DMFT score for 12-year-old children was 0.79. The percentage of DMFT due to decay (D/DMFT) and the percentage caries free (DMFT=0) generally declined across age groups (see Table 7). It is noteworthy that for children aged 12 or less more than 65% of children in any age group were caries free.

**Changes since 1997**

There were consistent and frequently large increases in the mean number of clinically decayed permanent teeth between the ages of 8 and 15. This was accompanied by increases in DMFT for 10–15-year-olds between 1997 and 1998. There were also large increases in D/DMFT for children aged 7 years and older. Changes in the percentage of caries free children (DMFT=0) were few and relatively inconsistent between 1997 and 1998.

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

| Age | Children<br><i>n</i> | Decayed (D) |      | Missing (M) |       | Filled (F) |       | DMFT |      |
|-----|----------------------|-------------|------|-------------|-------|------------|-------|------|------|
|     |                      | mean        | SD   | mean        | SD    | mean       | SD    | mean | SD   |
| 5   | 1,295                | 0.02        | 0.19 | –           | –     | 0.00       | 0.04* | 0.02 | 0.19 |
| 6   | 1,399                | 0.06        | 0.34 | 0.00        | 0.11* | 0.01*      | 0.17* | 0.07 | 0.40 |
| 7   | 1,397                | 0.13        | 0.48 | 0.00        | 0.02* | 0.03       | 0.24  | 0.15 | 0.55 |
| 8   | 1,457                | 0.16        | 0.51 | 0.00        | 0.04* | 0.07       | 0.36  | 0.23 | 0.66 |
| 9   | 1,326                | 0.19        | 0.66 | 0.02        | 0.18  | 0.12       | 0.45  | 0.33 | 0.86 |
| 10  | 1,373                | 0.31        | 0.95 | 0.03        | 0.24  | 0.24       | 0.70  | 0.58 | 1.24 |
| 11  | 1,320                | 0.30        | 0.76 | 0.03        | 0.30  | 0.30       | 0.74  | 0.62 | 1.15 |
| 12  | 1,010                | 0.41        | 1.19 | 0.07        | 0.44  | 0.31       | 0.80  | 0.79 | 1.58 |
| 13  | 372                  | 0.68        | 1.33 | 0.07        | 0.37  | 0.28       | 0.77  | 1.03 | 1.64 |
| 14  | 130                  | 0.94        | 1.65 | 0.14        | 0.62  | 0.56       | 1.06  | 1.64 | 2.38 |
| 15  | 100                  | 1.60        | 2.98 | 0.15        | 0.51  | 0.23       | 0.52  | 1.98 | 3.22 |
| ≥16 | 67                   | 0.81        | 1.26 | 0.04*       | 0.43* | 0.53       | 1.01  | 1.38 | 1.74 |

\* relative standard error ≥ 40%

**Table 7: Permanent dentition – caries experience indices by age**

| Age | D/DMFT   |      | DMFT=0   |      |
|-----|----------|------|----------|------|
|     | <i>n</i> | %    | <i>n</i> | %    |
| 5   | 19       | 88.1 | 1,295    | 98.5 |
| 6   | 61       | 86.4 | 1,399    | 95.6 |
| 7   | 127      | 84.8 | 1,397    | 90.9 |
| 8   | 211      | 69.8 | 1,457    | 85.5 |
| 9   | 246      | 55.0 | 1,326    | 81.4 |
| 10  | 369      | 49.6 | 1,373    | 73.1 |
| 11  | 426      | 47.7 | 1,320    | 67.8 |
| 12  | 338      | 46.8 | 1,010    | 66.5 |
| 13  | 156      | 62.3 | 372      | 57.9 |
| 14  | 62       | 49.8 | 130      | 52.3 |
| 15  | 45       | 67.3 | 100      | 55.6 |
| ≥16 | 39       | 60.7 | 67       | 41.8 |

## All teeth: age-specific experience

Untreated clinically detectable caries in the combined deciduous and permanent dentitions (see Table 8) existed for between 24.0% and 42.6% of children in all age groups. The greatest likelihood of untreated decay occurred for children aged 16 years and over and for children aged between 5 and 8. Based on observations from previous tables, much of this untreated decay in the younger children can be attributed to the deciduous dentition. Furthermore, it is noteworthy that the most extensive levels of untreated decay (4 or more deciduous or permanent teeth) occur in the younger age groups, with approximately 15% of children aged up to 6 years of age being affected to this extent. Higher levels of untreated decay were also apparent for children aged 14 and 15.

More than 94% of children aged 5 to 12 years had no deciduous or permanent teeth missing due to caries. However, smaller percentages avoided fillings with between 13.5% and 38.9% of children aged 6 to 12 years old having at least one filling. There is a decline in the percentage of children with no clinical caries experience in either deciduous or permanent dentition, from 67.0% up to age 4 to 40.8% at age 9. Above the age of 9, the percentage increases to a high of 58.6% for 12-year-olds.

### Changes since 1997

There were reductions in the percentage of children with  $d+D=0$  for several age groups between 1997 and 1998. The most consistent changes were found in the percentages of children with  $f+F=0$ , with all age groups bar two experiencing an increase between 1997 and 1998. The combination of increased detectable decay but reduced numbers of fillings resulted in few and inconsistent changes in the percentage of children with  $dmft+DMFT=0$  between 1997 and 1998.

**Table 8: All teeth – age-specific caries experience**

| Age | Children<br><i>n</i> | d + D = |      |      |      |      |      | m+M=0 | f+F=0 | dmft+<br>DMFT=0 |
|-----|----------------------|---------|------|------|------|------|------|-------|-------|-----------------|
|     |                      | 0       | 1    | 2    | 3    | 4    | 5+   |       |       |                 |
|     |                      | %       | %    | %    | %    | %    | %    | %     | %     | %               |
| ≤4  | 1,256                | 69.8    | 6.2  | 7.1  | 3.9  | 4.1  | 8.9  | 97.1  | 96.2  | 67.0            |
| 5   | 1,295                | 59.6    | 9.5  | 9.8  | 5.2  | 4.4  | 11.5 | 96.2  | 86.5  | 53.3            |
| 6   | 1,399                | 60.0    | 12.4 | 7.6  | 5.1  | 4.1  | 10.9 | 96.3  | 76.9  | 49.4            |
| 7   | 1,397                | 58.9    | 16.1 | 10.0 | 5.9  | 3.6  | 5.5  | 96.5  | 66.3  | 43.8            |
| 8   | 1,457                | 59.2    | 15.9 | 10.2 | 5.8  | 3.7  | 5.2  | 95.7  | 66.0  | 41.6            |
| 9   | 1,326                | 62.7    | 15.6 | 9.5  | 4.0  | 2.6  | 5.5  | 94.5  | 61.1  | 40.8            |
| 10  | 1,373                | 66.1    | 14.5 | 7.9  | 3.7  | 4.2  | 3.6  | 95.7  | 61.1  | 42.2            |
| 11  | 1,320                | 71.8    | 13.6 | 9.2  | 2.5  | 2.0  | 0.8  | 97.1  | 66.7  | 50.1            |
| 12  | 1,010                | 76.0    | 11.3 | 6.4  | 2.2  | 0.9  | 3.1  | 96.8  | 75.1  | 58.6            |
| 13  | 372                  | 66.8    | 12.6 | 8.9  | 6.6  | 0.7* | 4.5  | 96.4  | 81.8  | 54.0            |
| 14  | 130                  | 63.9    | 11.4 | 10.1 | 0.0  | 6.2  | 8.4  | 95.0  | 68.7  | 47.0            |
| 15  | 100                  | 65.3    | 10.7 | 3.4* | 3.4* | 2.4* | 14.9 | 89.2  | 81.7  | 55.6            |
| ≥16 | 67                   | 57.4    | 26.5 | 3.1* | 5.5* | 2.2* | 5.3* | 98.7  | 70.4  | 41.8            |

\* relative standard error ≥ 40%

## Fissure sealants: age-specific experience

Fissure sealants increased in prevalence for children up to 12 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 22.1% and 100.0% more likely to have fissure sealants as were children with DMFT=0.

### Changes since 1997

The mean number of fissure sealants in 1998 decreased considerably from 1997, with reductions for most age groups sampled. The decrease occurred for those with caries experience across almost all age groups but for only 4 of the age-groups of children with DMFT=0.

**Table 9: Fissure sealants – age-specific experience**

| Age | Children<br><i>n</i> | Sealants |      | Children with sealants |      |          |      |
|-----|----------------------|----------|------|------------------------|------|----------|------|
|     |                      |          |      | DMFT=0                 |      | DMFT≥1   |      |
|     |                      | mean     | SD   | <i>n</i>               | %    | <i>n</i> | %    |
| 6   | 1,399                | 0.12     | 0.61 | 1,338                  | 3.7  | 61       | 14.5 |
| 7   | 1,397                | 0.40     | 1.11 | 1,270                  | 11.9 | 127      | 23.8 |
| 8   | 1,457                | 0.81     | 1.49 | 2,146                  | 24.3 | 211      | 36.3 |
| 9   | 1,326                | 1.06     | 1.63 | 1,080                  | 32.6 | 246      | 39.8 |
| 10  | 1,373                | 1.11     | 1.65 | 1,004                  | 34.1 | 369      | 45.7 |
| 11  | 1,320                | 1.13     | 1.80 | 895                    | 31.7 | 426      | 47.9 |
| 12  | 1,010                | 1.16     | 1.95 | 672                    | 31.5 | 338      | 46.3 |
| 13  | 372                  | 0.99     | 1.84 | 215                    | 29.2 | 156      | 37.2 |
| 14  | 130                  | 0.90     | 1.92 | 68                     | 25.6 | 62       | 30.4 |
| 15  | 100                  | 0.74     | 1.42 | 56                     | 25.3 | 45       | 27.9 |
| ≥16 | 67                   | 1.05     | 1.85 | 28                     | 51.2 | 39       | 25.5 |

## 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 4% of children in this age range required immediate treatment, with the percentages across age groups ranging from 2.1% to 3.5%. The small group of children with immediate treatment needs had a high mean dmft experience. This was highest in younger children.

**Table 10: Immediate treatment needs: age-specific distribution**

| Age (yrs) |    |      | dmft  |       | DMFT  |       | d+D=  |       |       |       |       |
|-----------|----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|           |    |      |       |       |       |       | 0     | 1     | 2     | 3     | 4+    |
|           | n  | %    | Mean  | SD    | Mean  | SD    | %     | %     | %     | %     | %     |
| 5         | 27 | 2.1  | 3.66  | 3.30  | 0.07* | 0.37* | 4.6*  | 29.3  | 21.2  | 0.0   | 44.9  |
| 6         | 39 | 2.8  | 4.33  | 3.88  | 0.17* | 0.57* | 9.0   | 24.1  | 13.0  | 13.2  | 40.8  |
| 7         | 43 | 3.1  | 5.09  | 4.05  | 0.49  | 0.92  | 5.7   | 26.9  | 7.3*  | 7.4*  | 52.7  |
| 8         | 50 | 3.5  | 4.01  | 3.24  | 0.49  | 0.86  | 21.2  | 12.3  | 22.8  | 4.9*  | 38.9  |
| 9         | 46 | 3.5  | 4.12  | 2.57  | 0.86  | 1.36  | 9.2   | 8.9*  | 20.3  | 15.0  | 46.7  |
| 10        | 36 | 2.6  | 3.17  | 3.30  | 1.19  | 1.69  | 21.4  | 25.2  | 13.8  | 2.9*  | 36.7  |
| 11        | 35 | 2.6  | 1.22  | 2.15  | 1.48  | 1.44  | 20.5  | 27.6  | 26.5  | 18.8  | 6.6*  |
| 12        | 26 | 2.6  | 0.35  | 0.67  | 2.15  | 1.91  | 20.8  | 28.2  | 16.8  | 14.0* | 20.1  |
| 13        | 10 | 2.8  | 0.22* | 0.82* | 1.95  | 2.26  | 27.0* | 30.0* | 18.0* | 24.0  | 0.0   |
| 14        | 4  | 2.8* | –     | –     | 3.57  | 1.8   | 0.0   | 63.2  | 0.0   | 0.0   | 37.0* |
| 15        | 4  | 4.2* | –     | –     | 2.63  | 1.67  | 0.0   | 52.0* | 25.0* | 0.0   | 22.0* |
| ≥16       | 0  | 0.0  | –     | –     | –     | –     | –     | –     | –     | –     | –     |

\* relative standard error ≥ 40%

### Changes since 1997

Across all age groups up to and including 12-year-olds the percentage of children with immediate treatment needs increased.

### School Dental Service examinations

Table 11 describes the percentage of examinations of children which were initial or non-initial examinations in the Northern Territory School Dental Service. As expected, the figure is highest for the youngest ages (6 years or less) with fewer than 10% of the examinations of those aged 7 to 13 years being initial examinations. This pattern is expected and indicates that most patients are enrolled during their early school years.

Table 12 refers to children with previous examinations only and indicates their distribution according to time since last dental examination. Approximately 45–50% of children in the key age range received examinations within a year of their previous examination, while about one third of children had been examined last within a 13 to 18 month period. Few children were examined more than 18 months since their previous examination. Mean examination intervals ranged from 7.87 months for the youngest children to 21.68 months for 15-year-olds. Time since last dental exam for both 6 and 12-year-old children is shown in Figure 1.

### Changes since 1997

There was a consistent trend for a higher percentage of previous examinations to be recorded as ‘unknown’. This resulted in reductions in the percentage of both first and subsequent examinations for several age groups. Of those children with previous examinations, reductions occurred for most age groups in the percentage receiving



examinations from 7 to 12 months previously while increases were observed in the percentages receiving examinations 13–24 months previously.

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

| Age | Children examined<br><i>n</i> | Previous examination in School Dental Service |          |              |
|-----|-------------------------------|-----------------------------------------------|----------|--------------|
|     |                               | No<br>%                                       | Yes<br>% | Unknown<br>% |
| ≤4  | 1,400                         | 62.5                                          | 19.7     | 17.8         |
| 5   | 1,486                         | 23.9                                          | 48.7     | 27.4         |
| 6   | 1,493                         | 10.2                                          | 65.0     | 24.8         |
| 7   | 1,487                         | 7.0                                           | 72.9     | 20.1         |
| 8   | 1,511                         | 5.6                                           | 74.8     | 19.5         |
| 9   | 1,367                         | 5.1                                           | 77.9     | 17.0         |
| 10  | 1,325                         | 4.0                                           | 78.9     | 17.1         |
| 11  | 1,310                         | 5.0                                           | 79.7     | 15.3         |
| 12  | 1,007                         | 3.2                                           | 78.1     | 18.7         |
| 13  | 347                           | 7.7                                           | 68.6     | 23.7         |
| 14  | 134                           | 10.8                                          | 69.2     | 20.0         |
| 15  | 86                            | 9.3                                           | 65.3     | 25.4         |
| ≥16 | 60                            | 10.1                                          | 58.2     | 31.7         |

**Table 12: School Dental Service examinations – time since last visit**

| Age | Children<br><i>n</i> | Months since last visit |           |            |            |          | mean  | SD    |
|-----|----------------------|-------------------------|-----------|------------|------------|----------|-------|-------|
|     |                      | 0–6<br>%                | 7–12<br>% | 13–18<br>% | 19–24<br>% | 25+<br>% |       |       |
| ≤4  | 276                  | 53.8                    | 30.5      | 12.1       | 2.6        | 0.9*     | 7.87  | 4.61  |
| 5   | 723                  | 22.0                    | 44.9      | 27.5       | 4.0        | 1.6      | 10.88 | 5.08  |
| 6   | 971                  | 9.8                     | 44.8      | 33.6       | 8.5        | 3.2      | 12.88 | 5.34  |
| 7   | 1,084                | 10.4                    | 41.0      | 38.2       | 6.8        | 3.7      | 13.04 | 5.32  |
| 8   | 1,131                | 9.5                     | 39.3      | 36.9       | 10.1       | 4.1      | 13.71 | 6.30  |
| 9   | 1,064                | 10.2                    | 37.3      | 37.9       | 9.5        | 5.1      | 13.82 | 7.06  |
| 10  | 1,045                | 5.7                     | 38.6      | 37.9       | 10.7       | 7.1      | 15.16 | 8.71  |
| 11  | 1,043                | 8.3                     | 36.6      | 38.1       | 10.8       | 6.3      | 14.61 | 7.65  |
| 12  | 786                  | 7.1                     | 38.4      | 38.2       | 9.2        | 7.1      | 14.58 | 7.42  |
| 13  | 238                  | 14.2                    | 25.9      | 28.0       | 12.7       | 19.2     | 17.49 | 12.18 |
| 14  | 93                   | 26.5                    | 22.6      | 18.2       | 11.5       | 21.3     | 16.64 | 13.34 |
| 15  | 56                   | 12.5                    | 19.0      | 10.0       | 24.7       | 33.8     | 21.68 | 14.74 |
| ≥16 | 35                   | 21.7                    | 32.6      | 5.7*       | 6.2*       | 33.8     | 19.51 | 15.48 |

\* relative standard error ≥ 40%

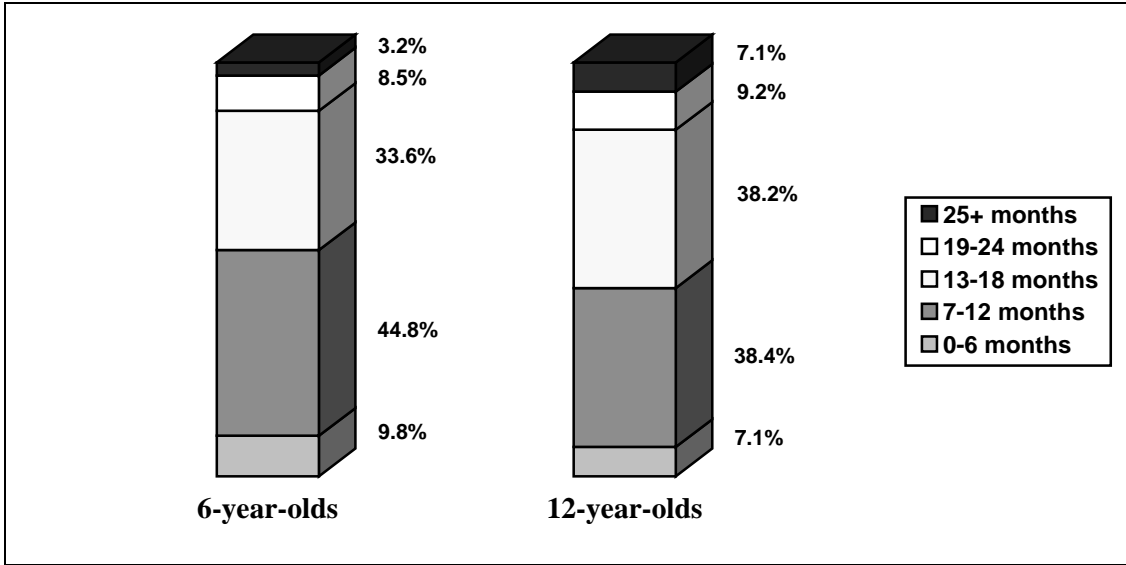


Figure 3: Time since last dental examination for 6- and 12-year-olds

### Percentage of children with dmft=0, DMFT=0 and d+D=4+

Figure 3 presents a summary of data contained in Tables 5, 7 and 8 showing the extent of dental health (represented by percentage with no caries experience) and the extent of more extensive untreated decay. There is a progressive decline across age in the

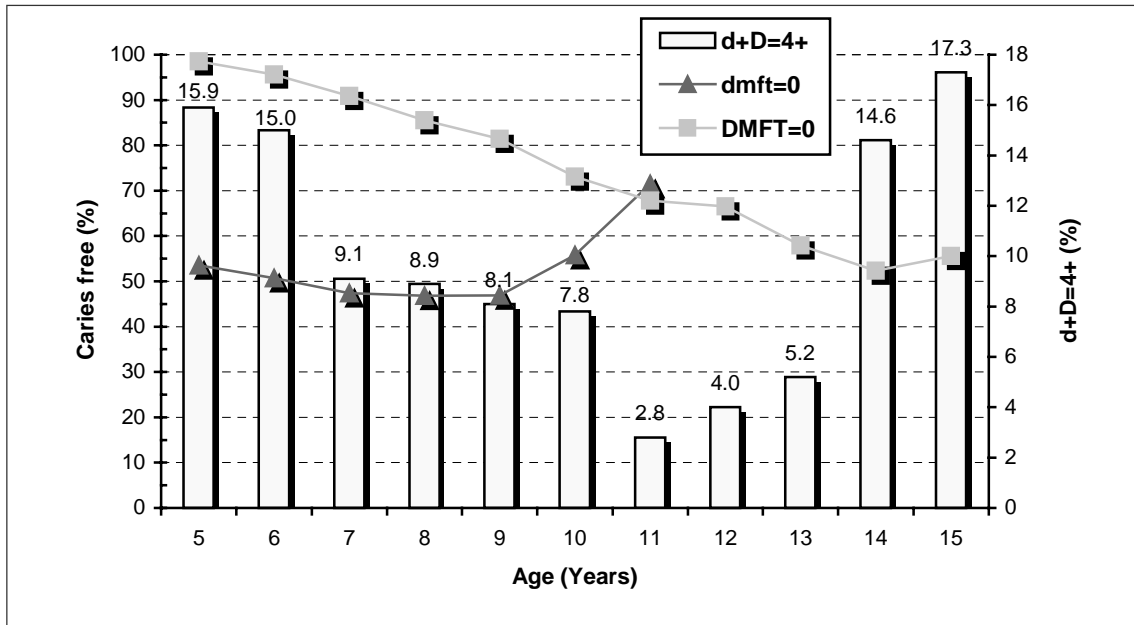


Figure 4: Percentage of children with dmft=0, DMFT=0 and d+D≥4

percentage of children with DMFT=0, and in the percentage of children with dmft+DMFT≥4 up to the age of 11.

## Deciduous teeth of non-Indigenous and Indigenous children

Supplementary Tables S1 and S2 describe the age-specific indices of deciduous caries experience for non-Indigenous and Indigenous children respectively. Indigenous children up to the age of 9 years old had 3 to 4 times more clinically detectable decay and dmft scores 1½ to 3 times as high as non-Indigenous children. 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 (d/dmft) was substantially higher among Indigenous children.

**Table S1: Deciduous teeth – age-specific caries experience of non-Indigenous children**

| Age | Children<br><i>n</i> | Decayed (d) |      | Missing (m) |      | Filled (f) |      | dmft |      | d/dmft | dmft=0 |
|-----|----------------------|-------------|------|-------------|------|------------|------|------|------|--------|--------|
|     |                      | mean        | SD   | mean        | SD   | mean       | SD   | mean | SD   | %      | %      |
| ≤4  | 1,056                | 0.68        | 1.68 | 0.05        | 0.40 | 0.17       | 0.90 | 0.90 | 2.04 | 81.6   | 74.9   |
| 5   | 878                  | 0.73        | 1.63 | 0.08        | 0.54 | 0.42       | 1.24 | 1.22 | 2.44 | 65.2   | 64.5   |
| 6   | 954                  | 0.66        | 1.49 | 0.07        | 0.48 | 0.62       | 1.45 | 1.35 | 2.48 | 49.6   | 60.2   |
| 7   | 965                  | 0.51        | 1.07 | 0.04        | 0.31 | 0.98       | 1.78 | 1.54 | 2.36 | 36.4   | 54.7   |
| 8   | 966                  | 0.49        | 0.96 | 0.07        | 0.41 | 0.97       | 1.67 | 1.53 | 2.16 | 37.4   | 52.5   |
| 9   | 905                  | 0.41        | 0.86 | 0.08        | 0.56 | 1.07       | 1.80 | 1.56 | 2.24 | 31.2   | 50.5   |
| 10  | 869                  | 0.31        | 0.78 | 0.07        | 0.43 | 0.94       | 1.58 | 1.33 | 2.00 | 25.1   | 55.3   |
| 11  | 866                  | 0.19        | 0.58 | 0.05        | 0.36 | 0.52       | 1.18 | 0.76 | 1.59 | 26.2   | 70.6   |
| 12  | 567                  | 0.09        | 0.37 | –           | –    | 0.17       | 0.66 | 0.26 | 0.81 | 39.7   | 86.9   |

**Table S2: Deciduous teeth – age-specific caries experience of Indigenous children**

| Age | Children<br><i>n</i> | Decayed (d) |      | Missing (m) |       | Filled (f) |      | dmft |      | d/dmft | dmft=0 |
|-----|----------------------|-------------|------|-------------|-------|------------|------|------|------|--------|--------|
|     |                      | mean        | SD   | mean        | SD    | mean       | SD   | mean | SD   | %      | %      |
| ≤4  | 303                  | 2.62        | 3.58 | 0.10        | 0.55  | 0.22       | 1.20 | 2.93 | 3.80 | 90.6   | 40.5   |
| 5   | 390                  | 2.89        | 3.39 | 0.14        | 0.66  | 0.50       | 1.54 | 3.53 | 3.82 | 85.1   | 29.2   |
| 6   | 433                  | 2.40        | 3.08 | 0.10        | 0.56  | 0.60       | 1.39 | 3.11 | 3.45 | 77.4   | 30.8   |
| 7   | 462                  | 1.66        | 2.27 | 0.10        | 0.51  | 1.00       | 1.81 | 2.76 | 2.94 | 62.7   | 32.3   |
| 8   | 497                  | 1.48        | 2.13 | 0.07        | 0.40  | 0.82       | 1.60 | 2.37 | 2.66 | 62.9   | 34.4   |
| 9   | 463                  | 1.27        | 2.01 | 0.07        | 0.35  | 0.85       | 1.53 | 2.20 | 2.53 | 56.7   | 35.6   |
| 10  | 492                  | 0.79        | 1.69 | 0.02*       | 0.22* | 0.58       | 1.20 | 1.39 | 2.17 | 53.3   | 54.4   |
| 11  | 454                  | 0.31        | 0.80 | 0.01*       | 0.19* | 0.38       | 1.09 | 0.69 | 1.52 | 49.3   | 71.2   |
| 12  | 364                  | 0.17        | 0.65 | 0.00        | 0.05* | 0.13       | 0.69 | 0.31 | 1.06 | 64.5   | 86.3   |

\* 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 for deciduous caries experience (see Tables S3 and S4). 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 (DMFT=0).

**Table S3: Permanent teeth – age-specific caries experience of non-Indigenous children**

| Age | Children<br><i>n</i> | Decayed (D) |       | Missing (M) |       | Filled (F) |       | DMFT  |       | D/DMFT | DMFT=0 |
|-----|----------------------|-------------|-------|-------------|-------|------------|-------|-------|-------|--------|--------|
|     |                      | mean        | SD    | mean        | SD    | mean       | SD    | mean  | SD    | %      | %      |
| 5   | 878                  | 0.01*       | 0.12* | –           | –     | 0.00       | 0.04* | 0.01  | 0.12  | 76.8   | 99.2   |
| 6   | 954                  | 0.04        | 0.24  | 0.00        | 0.12* | 0.01*      | 0.18* | 0.05  | 0.33  | 85.8   | 96.5   |
| 7   | 965                  | 0.09        | 0.42  | –           | –     | 0.03       | 0.24  | 0.12  | 0.50  | 82.8   | 93.0   |
| 8   | 966                  | 0.10        | 0.36  | 0.00        | 0.07* | 0.08       | 0.38  | 0.18  | 0.58  | 55.8   | 88.0   |
| 9   | 905                  | 0.11        | 0.41  | 0.02        | 0.20  | 0.15       | 0.51  | 0.28  | 0.74  | 38.2   | 83.9   |
| 10  | 869                  | 0.11        | 0.42  | 0.02        | 0.22  | 0.26       | 0.71  | 0.38  | 0.88  | 30.5   | 78.2   |
| 11  | 866                  | 0.15        | 0.49  | 0.04        | 0.36  | 0.32       | 0.76  | 0.50  | 1.02  | 30.6   | 72.7   |
| 12  | 567                  | 0.16        | 0.54  | 0.05        | 0.45  | 0.29       | 0.72  | 0.51  | 1.04  | 32.6   | 72.5   |
| 13  | 115                  | 0.17        | 0.54  | –           | –     | 0.29       | 0.71  | 0.46  | 1.01  | 36.4   | 73.0   |
| 14  | 26                   | 0.32*       | 0.92* | –           | –     | 0.50       | 0.87  | 0.82  | 1.54  | 24.3*  | 68.6   |
| 15  | 11                   | –           | –     | –           | –     | 0.18*      | 0.60* | 0.18* | 0.60* | 0.0    | 91.0   |
| ≥16 | 6                    | 0.29*       | 0.50  | –           | –     | 1.36*      | 1.85* | 1.65* | 1.81* | 38.1*  | 38.7*  |

\* relative standard error ≥ 40%

**Table S4: Permanent teeth – age-specific caries experience of Indigenous children**

| Age | Children<br><i>n</i> | Decayed (D) |       | Missing (M) |       | Filled (F) |       | DMFT |      | D/DMFT | DMFT=0 |
|-----|----------------------|-------------|-------|-------------|-------|------------|-------|------|------|--------|--------|
|     |                      | mean        | SD    | mean        | SD    | mean       | SD    | mean | SD   | %      | %      |
| 5   | 390                  | 0.04*       | 0.30* | –           | –     | 0.00       | 0.05* | 0.04 | 0.31 | 91.0   | 97.7   |
| 6   | 433                  | 0.08        | 0.41  | –           | –     | 0.01*      | 0.10* | 0.09 | 0.42 | 84.6   | 94.1   |
| 7   | 462                  | 0.18        | 0.55  | 0.00        | 0.03* | 0.05       | 0.31  | 0.23 | 0.66 | 80.7   | 86.8   |
| 8   | 497                  | 0.28        | 0.71  | –           | –     | 0.06       | 0.33  | 0.34 | 0.82 | 83.3   | 80.2   |
| 9   | 463                  | 0.30        | 0.82  | 0.02*       | 0.16* | 0.10       | 0.38  | 0.42 | 0.95 | 70.8   | 76.5   |
| 10  | 492                  | 0.52        | 1.17  | 0.04        | 0.33  | 0.27       | 0.73  | 0.83 | 1.45 | 59.2   | 63.9   |
| 11  | 454                  | 0.53        | 1.05  | 0.04        | 0.33  | 0.28       | 0.71  | 0.85 | 1.36 | 61.1   | 59.1   |
| 12  | 364                  | 0.76        | 1.63  | 0.08        | 0.40  | 0.41       | 1.11  | 1.25 | 2.15 | 58.8   | 57.2   |
| 13  | 219                  | 0.85        | 1.42  | 0.09        | 0.44  | 0.27       | 0.78  | 1.21 | 1.75 | 70.6   | 51.6   |
| 14  | 83                   | 0.85        | 1.56  | 0.12*       | 0.60* | 0.39       | 0.99  | 1.36 | 2.14 | 60.4   | 55.2   |
| 15  | 79                   | 1.13        | 2.37  | 0.17        | 0.58  | 0.27       | 0.56  | 1.57 | 2.65 | 58.1   | 53.0   |
| ≥16 | 77                   | 0.73        | 1.20  | 0.07*       | 0.56* | 0.34       | 0.75  | 1.13 | 1.66 | 64.9   | 46.9   |

\* relative standard error ≥ 40%

## Caries experience by geographical location

Table S5 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 0.88 in the Darwin Urban area to 3.58 in East Arnhem. Teeth missing due to caries were uncommon in all areas, ranging from 0.01 in Alice Springs Rural to 0.13 in Alice Springs Urban. The number of filled teeth was also lowest in the Alice Springs Rural area (mean = 0.10) with the highest score being in Alice Springs Urban (mean = 0.98). Mean dmft scores in the deciduous dentition ranged from 1.47 in Barkly to 4.04 in East Arnhem. The percentage of children with dmft=0 was highest in Barkly (60.0%) and Darwin Urban (56.9%) and lowest in the East Arnhem (36.6%) and Alice Springs Rural (38.3%) Health Areas.

**Table S5: Deciduous caries experience of 5–6-year-old children by area**

|                     | Children<br><i>n</i> | Decayed (d) |      | Missing (m) |      | Filled (f) |      | dmft |      | dmft=0 |
|---------------------|----------------------|-------------|------|-------------|------|------------|------|------|------|--------|
|                     |                      | mean        | SD   | mean        | SD   | mean       | SD   | mean | SD   | %      |
| Darwin Urban        | 1,008                | 0.88        | 1.78 | 0.09        | 0.53 | 0.58       | 1.46 | 1.55 | 2.67 | 56.9   |
| Darwin Rural        | 341                  | 1.56        | 2.45 | 0.10        | 0.53 | 0.48       | 1.13 | 2.13 | 2.92 | 46.0   |
| East Arnhem         | 112                  | 3.58        | 4.77 | 0.12        | 0.59 | 0.34       | 1.19 | 4.04 | 4.83 | 36.6   |
| Katherine           | 370                  | 1.57        | 2.59 | 0.09        | 0.58 | 0.52       | 1.29 | 2.18 | 3.09 | 47.0   |
| Barkly              | 100                  | 1.01        | 1.78 | 0.06        | 0.34 | 0.40       | 1.41 | 1.47 | 2.71 | 60.0   |
| Alice Springs Urban | 756                  | 1.09        | 1.91 | 0.13        | 0.71 | 0.98       | 1.92 | 2.20 | 3.22 | 48.0   |
| Alice Springs Rural | 175                  | 2.45        | 3.27 | 0.01        | 0.08 | 0.10       | 0.46 | 2.55 | 3.31 | 38.3   |

Among 12-year-old children (see Table S6), East Arnhem again had the highest mean decay score (mean = 1.00) which was almost 6 times higher than that in Darwin Urban (mean = 0.17) and approximately 7 times higher than the decay score in Barkly (mean = 0.14). The number of filled teeth ranged from a mean of 0.10 in East Arnhem to 0.64 in Alice Springs Urban. The lowest mean DMFT score among 12-year-olds was in Barkly (mean = 0.45) which also had the highest percentage of children with DMFT=0 (81.8%). DMFT scores were highest in Katherine (mean = 1.21) and East Arnhem (mean = 1.14) which also had the least percentage of children with DMFT=0 (54.9% and 55.2% respectively).

**Table S6: 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        | 424      | 0.17        | 0.50 | 0.06        | 0.43 | 0.30       | 0.72 | 0.52 | 1.06 | 71.9   |
| Darwin Rural        | 112      | 0.47        | 1.44 | 0.14        | 0.64 | 0.29       | 0.72 | 0.90 | 1.88 | 66.1   |
| East Arnhem         | 29       | 1.00        | 1.91 | 0.03        | 0.19 | 0.10       | 0.31 | 1.14 | 1.90 | 55.2   |
| Katherine           | 144      | 0.59        | 1.20 | 0.10        | 0.54 | 0.51       | 1.03 | 1.21 | 1.78 | 54.9   |
| Barkly              | 22       | 0.14        | 0.47 | 0.14        | 0.64 | 0.18       | 0.85 | 0.45 | 1.10 | 81.8   |
| Alice Springs Urban | 86       | 0.44        | 1.43 | 0.02        | 0.15 | 0.64       | 1.78 | 1.10 | 2.42 | 64.0   |
| Alice Springs Rural | 73       | 0.58        | 1.36 | 0.04        | 0.26 | 0.22       | 0.58 | 0.84 | 1.74 | 71.2   |