

## 3.8 Oral health

### Why this measure is included

Good oral health has positive effects on quality of life, social interactions and self-esteem.<sup>100</sup> Conversely, oral disease can cause pain, discomfort, difficulty sleeping and difficulties in eating which can lead to poor nutrition. Children with poor oral health may demonstrate problems in behaviour, peer interaction and school absences, which in turn can negatively affect academic performance.<sup>101</sup> Poor oral health in childhood can lead to poor oral health in adulthood as well as an increased risk of chronic disease later in life.<sup>102</sup>

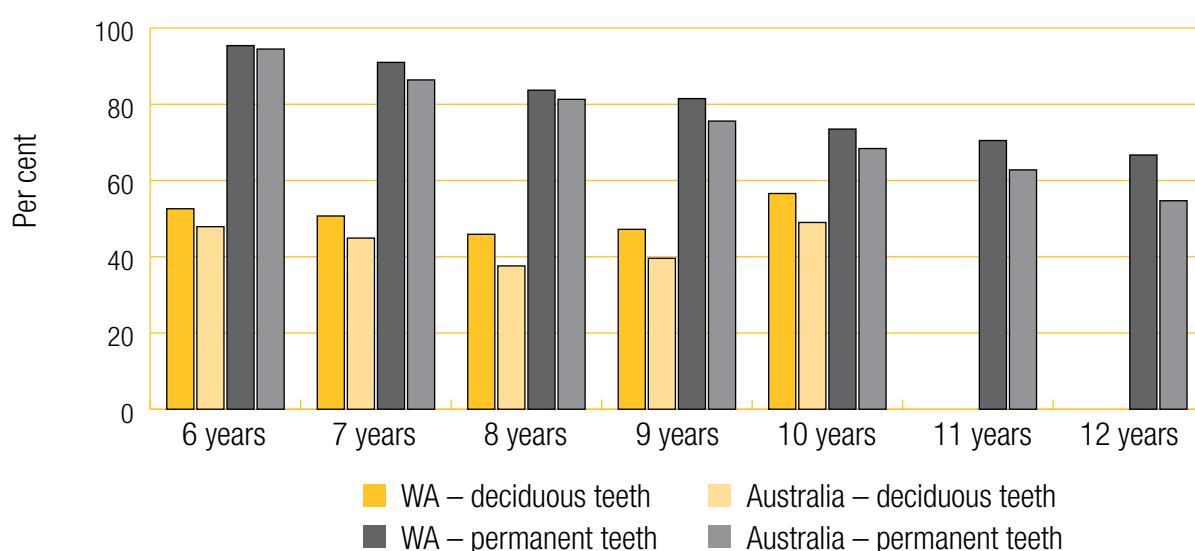
**Table 3.18: Children 6 to 12 years with no decayed, missing or filled teeth as a result of tooth decay: in per cent, by age and tooth type, Western Australia and Australia, 2008**

	Deciduous teeth		Permanent teeth	
	Western Australia	Australia excl. NSW and Victoria	Western Australia	Australia excl. NSW and Victoria
6 years	52.6	47.9	95.4	94.5
7 years	50.7	44.9	91.0	86.4
8 years	45.9	37.6	83.7	81.3
9 years	47.2	39.6	81.5	75.6
10 years	56.6	49.0	73.5	68.4
11 years*	n/a	n/a	70.5	62.8
12 years*	n/a	n/a	66.7	54.7

Source: Amarasinghe N and Ha DH 2012, *Fissure sealant use among children attending school dental services: Child Dental Health Survey Australia 2008*, Cat. no. DEN 220, Australian Institute of Health and Welfare

\* Children begin losing their baby teeth from five years of age and most children would have lost their baby teeth and gained permanent teeth by 12 years of age. Therefore, analyses of dental decay in 11 to 12 year-olds report only the level of decay in permanent teeth.

**Figure 3.9: Children 6 to 12 years with no decayed, missing or filled teeth as a result of tooth decay: in per cent, by age and tooth type, Western Australia and Australia, 2008**



Source: Amarasinghe N and Ha DH 2012, *Fissure sealant use among children attending school dental services: Child Dental Health Survey Australia 2008*, Cat. no. DEN 220, Australian Institute of Health and Welfare



**Table 3.19: Children and young people with decayed, missing or filled teeth: DMFT/dmft index<sup>103</sup> by age, Western Australia and Australia (excl. NSW and Vic), 2008**

	Deciduous teeth (dmft)		Permanent teeth (DMFT)	
	Western Australia	Australia excl. NSW and Victoria	Western Australia	Australia excl. NSW and Victoria
5 years	1.14	n/a	n/a	n/a
6 years	1.85	2.31	0.09	0.09
7 years	1.70	2.23	0.14	0.25
8 years	1.94	2.46	0.27	0.33
9 years	1.53	2.21	0.33	0.46
10 years	1.20	1.60	0.47	0.63
11 years	n/a	n/a	0.60	0.82
12 years	n/a	n/a	0.68	1.11
13 years	n/a	n/a	0.90	n/a
14 years	n/a	n/a	1.19	n/a
15 years	n/a	n/a	1.45	n/a

Source: Amarasena N and Ha DH 2012, *Fissure sealant use among children attending school dental services: Child Dental Health Survey Australia 2008*, Cat. no. DEN 220, Australian Institute of Health and Welfare

**Table 3.20: Hospital separations for potentially preventable hospitalisations due to dental conditions<sup>104</sup> for children and young people 0 to 17 years: number and rate per 100,000 population, by age group, Western Australia, 2005 to 2012**

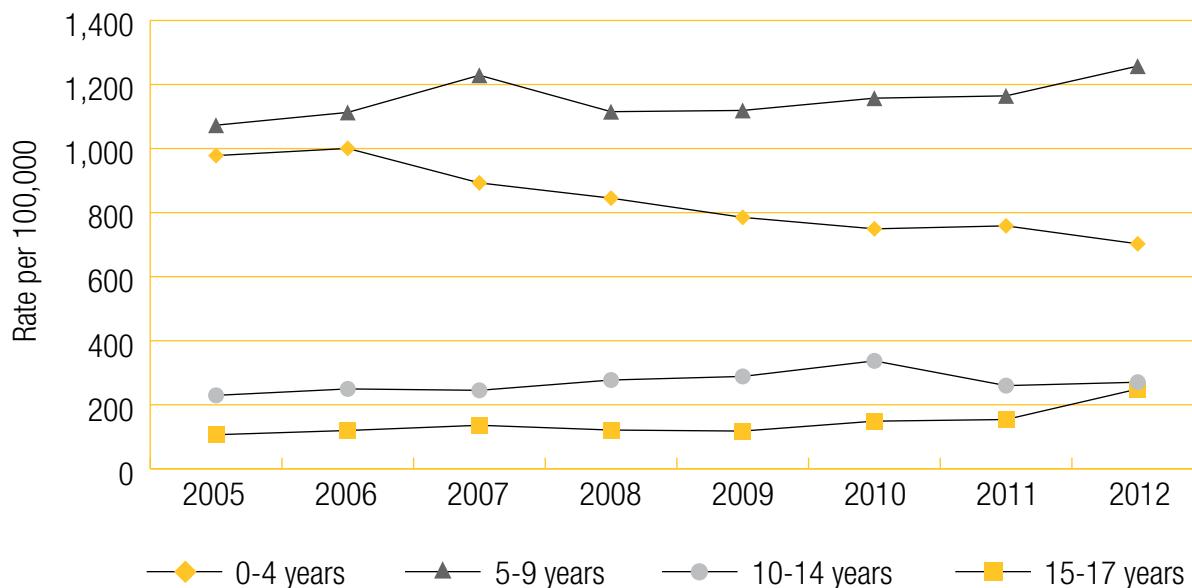
	0 to 4 years		5 to 9 years		10 to 14 years		15 to 17 years		Total	
	No.	ASHR*	No.	ASHR*	No.	ASHR*	No.	ASHR*	No.	AAR**
2005	1243	978.1	1445	1073.0	327	229.5	93	106.6	3108	645.7
2006	1304	1000.5	1514	1112.9	358	249.6	105	119.8	3281	670.8
2007	1206	892.9	1683	1228.9	354	245.2	121	136.1	3364	676.3
2008	1209	845.2	1548	1115.2	405	277.4	110	121.2	3272	638.1
2009	1172	785.2	1578	1119.1	428	288.6	109	118.0	3287	625.8
2010	1157	749.4	1650	1157.4	502	337.2	138	148.9	3447	646.0
2011	1186	758.7	1701	1164.6	386	259.9	140	154.1	3413	629.6
2012	1151	702.6	1892	1257.5	409	270.5	236	249.3	3688	659.9

Source: Data supplied by Public Health and Clinical Services Division, WA Department of Health 2013, custom report

\* ASHR refers to age-specific hospitalisation rate per 100,000 population.

\*\* AAR refers to age-adjusted rate per 100,000 population.

**Figure 3.10: Hospital separations for potentially preventable hospitalisations due to dental conditions<sup>105</sup> for children and young people 0 to 17 years: age-specific rate per 100,000 population, Western Australia, 2005 to 2012**



Source: Data supplied by Public Health and Clinical Services Division, WA Department of Health 2013, custom report (unpublished)

### What is this measure?

This measure examines the prevalence of decayed, missing or filled teeth as a result of tooth decay in children and young people. Decay experience in teeth is denoted by the average number of decayed, missing and filled teeth, the dmft/DMFT index.<sup>106</sup>

Information has been included on the dmft/DMFT index for five to 15 year-olds as well as the number and proportion of six to 12 year-olds with no past tooth decay in Western Australia (WA) and nationally. This data is drawn from the Australian Institute of Health and Welfare's (AIHW) *Child Dental Health Survey*, most recently conducted in 2008, from which the data of children and young people from all states and territories, except New South Wales and Victoria, was analysed.<sup>107</sup>

In addition, this measure also considers the number and rate of hospital separations for dental health issues for children and young people aged 0 to 17 years in WA between 2005 and 2012. This data was provided by the WA Department of Health as part of a custom report.

### Commentary

According to results from the Child Dental Health Survey, the proportion of WA children aged six to 12 years with no decayed, missing or filled deciduous ('baby') teeth ranged from 45.9 per cent for eight year-olds to 56.6 per cent for 10 year-olds. At age six and seven, a little more than one-half of children had no past tooth decay in their baby teeth (Table 3.18 and Figure 3.9).

The presence of relatively few permanent teeth at younger ages, and the shorter time since eruption, means that younger children were significantly more likely to have no decayed, missing or filled permanent teeth compared to older children: 95.4 per cent of six year-olds and 91.0 per cent of seven year-olds had healthy permanent teeth, while only around two-thirds of 12 year-olds (66.7%) had no past tooth decay in their permanent teeth (Table 3.18).



Comparison with national data (excl. NSW and Victoria) shows that the proportion of WA children with no decayed, missing or filled deciduous teeth was higher than the corresponding proportion of Australian children across all surveyed age groups. Similarly, WA recorded a larger proportion of children with no decayed, missing or filled permanent teeth (Table 3.18 and Figure 3.9).

The dmft/DMFT index is derived from the number of decayed, missing and filled teeth the child has – the lower a child's dmft/DMFT the better their oral health. In 2008, the mean dmft values for deciduous teeth across five to 10 year-olds in WA fluctuated, and were the lowest for five year-olds (at 1.14) and 10 year-olds (at 1.20). This fluctuation results from the loss of deciduous teeth and their replacement by permanent teeth<sup>108</sup> (Table 3.19).

The mean DMFT values for permanent teeth across six to 15 year-olds increased with age and were the highest for 15 year-olds at 1.45. This pattern is explained by the small number of permanent teeth present for children eight years and younger (Table 3.19).<sup>109</sup>

Dental extractions and restorations are the most common reason for hospital separations among children Australia-wide.<sup>110</sup> In WA, children and young people aged five to 14 years had an age-adjusted hospitalisation rate for dental conditions<sup>111</sup> of 1,008.5 per 100,000 which was more than twice the rate for the second most common condition tonsillectomy (496.0) and three times the rate for hospitalisation for fracture injuries (351.9).<sup>112</sup>

In 2012, the WA Department of Health recorded 3,688 potentially preventable hospital separations for dental conditions for children aged 0 to 17 years. Children aged five to nine years had the highest age-specific hospitalisation rate of 1,257.5 per 100,000 in 2012. The hospitalisation rate for this age group increased during the period 2005 to 2012 from 1,073.0 to 1,257.5 (Table 3.20).

The second highest hospitalisation rate of 702.6 was recorded for very young children aged 0 to four years. The rate for this age group has decreased during the period 2005 to 2012 from 978.1 to 702.6 (Figure 3.10).

The hospitalisation rate was significantly lower for children and young people aged 10 to 14 years (270.5) and 15 to 17 years (249.3). This is due to the reduced requirement for hospitalisation in older children and young people as they can be treated as outpatients for most dental restorations or extractions. Nevertheless, the hospitalisation rates for both these age groups increased over the period 2005 to 2012, particularly for young people aged 15 to 17 years for whom the rate rose from 106.6 to 249.3 (Figure 3.10).

## Strategies

### **Child Dental Benefits Schedule, Commonwealth Government (released 2014)**

The Child Dental Benefits Schedule is a Australian Government dental scheme providing means-tested benefits for basic dental services to children aged two to 17 years. Benefits are capped at \$1,000 per child over a two-calendar-year period for dental care such as check-ups and fillings from the family dentist or public dental service. The scheme replaced the Medicare Teen Dental Plan (MTDP). More information is available at [www.humanservices.gov.au/customer/services/medicare/child-dental-benefits-schedule](http://www.humanservices.gov.au/customer/services/medicare/child-dental-benefits-schedule)

### **National Oral Health Plan, Healthy Mouths Healthy Lives, 2004–2013**

The National Oral Health Plan 2004–2013 was developed to improve health and wellbeing across the Australian population by improving oral health and reducing the burden of oral disease.

The plan focused on seven action areas:

1. Promoting oral health across the population
2. Children and adolescents
3. Older people
4. Low income and social disadvantage
5. People with special needs
6. Aboriginal and Torres Strait Islander people
7. Workforce development
8. Rural and remote (added to the plan in 2011–12)

The Standing Council on Health through the Australian Health Ministers' Advisory Council has tasked the National Oral Health Plan Monitoring Group to develop a new national plan for 2014 to 2023.

More information is available at <http://oralhealthplan.com.au/project-overview>

## Want to know more?

### Data on dental health

The AIHW report *A picture of Australia's children 2012* delivers the latest information on how, as a nation, we are faring according to key indicators of child health, development and wellbeing and is available at [www.aihw.gov.au/publication-detail/?id=10737423343](http://www.aihw.gov.au/publication-detail/?id=10737423343)

An overview of AIHW publications relating to dental and oral health is available at [www.aihw.gov.au/dental-and-oral-health-publications/](http://www.aihw.gov.au/dental-and-oral-health-publications/)

### Research, reports and articles

Williams S, Jamieson L, MacRae A, Gray C 2011, *Review of Indigenous oral health*. Retrieved [15 November 2013] from [www.healthinfonet.ecu.edu.au/oral\\_review](http://www.healthinfonet.ecu.edu.au/oral_review)

### Other information

The School Dental Service of the WA Department of Health provides general dental care for all school children from the year they turn five until the end of Year 11 or reaching the age of 17 years, whichever comes first. More information is available at [www.dental.wa.gov.au/school/index.php](http://www.dental.wa.gov.au/school/index.php)